

# **DUTCHESS COUNTY RESOURCE RECOVERY FACILITY**

## **OPERATIONS AND MAINTENANCE MANUAL**



**FEBRUARY 2010**

(Revised June 7, 2010)

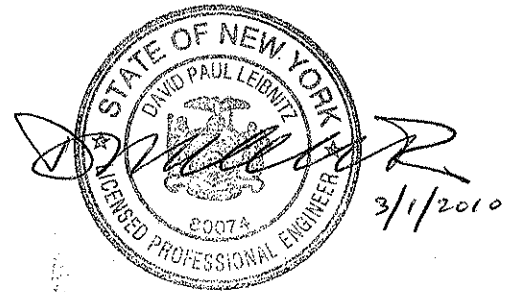
**Permit No: 3-1346-00019/00012**

**Owner:**  
**Dutchess County Resource Recovery Agency**  
**Poughkeepsie, New York 12601-5444**

**Operator:**  
**Covanta Hudson Valley Renewable Energy LLC**

To Whom It May Concern

I, David Leibnitz, P.E. (Senior Project Manager, HDR Engineering) have been actively involved as a consultant to the Dutchess County Resource Recovery Agency for the construction, operation, capital improvement projects and maintenance activities of the Dutchess County Resource Recovery Facility since it initial start-up in 1988. I have personally overseen the preparation of this Operations and Maintenance Manual by qualified members of my staff as well as the staff of the facility operator. To the best of my knowledge and belief it is complete and accurate as of the date of this signature.





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## **1.0 INTRODUCTION**

### **1.1 FACILITY DESCRIPTION**

This update of the Operations and Maintenance (O&M) Manual for the Dutchess County Resource Recovery Facility (Facility) has been prepared by the Dutchess County Resource Recovery Agency (Agency) as required by Section 360-3.4, Operational Requirements of 6 NYCRR Part 360. The original O & M manual was submitted in February 1992. This update is being submitted in compliance with paragraph 360-3.3 (n)(3) of 6NYCRR Part 360 and 40 CFR 60.1660 (Subpart BBBB) requiring O&M Manual updates subsequent to the associated air pollution control equipment (APC) retrofit.

The Facility is a municipal waste combustor (MWC) Waste-to-Energy. Facility of the mass burning type using a rotary waterwall technology. It is located in the Town of Poughkeepsie, Dutchess County, New York. The Facility is currently permitted to process 456 tons per day (tpd) of municipal solid waste averaged on an annual basis. The Facility is a FERC qualified small power generator using boilers to produce steam from the heat resulting from the combustion of solid waste and using that steam to generate electricity.

The Facility consists of four separate structures: a main process building, a scale house, an Operator's office building and an Agency administration building. The general layout of the site is shown in Figure 1.1-1. A schematic flow diagram of the Facility is shown in Figure 1.1-2.

The Agency administration building provides space for administrative activities and for receiving visitors. A conference room for visitors has been provided. A parking lot for twenty cars is located adjacent to the administration building.

The Operator's office building contains the offices of the Facility Manager, Operations Manager, Plant Engineer, Comptroller, Safety & Environmental Coordinator and administrative staff.

The weigh station consists of a scale house and two 10' by 70', 60-ton capacity weigh scales, located inside the main entrance gate. These scales will weigh all trucks carrying refuse, residue and recovered materials both when entering and leaving the site.

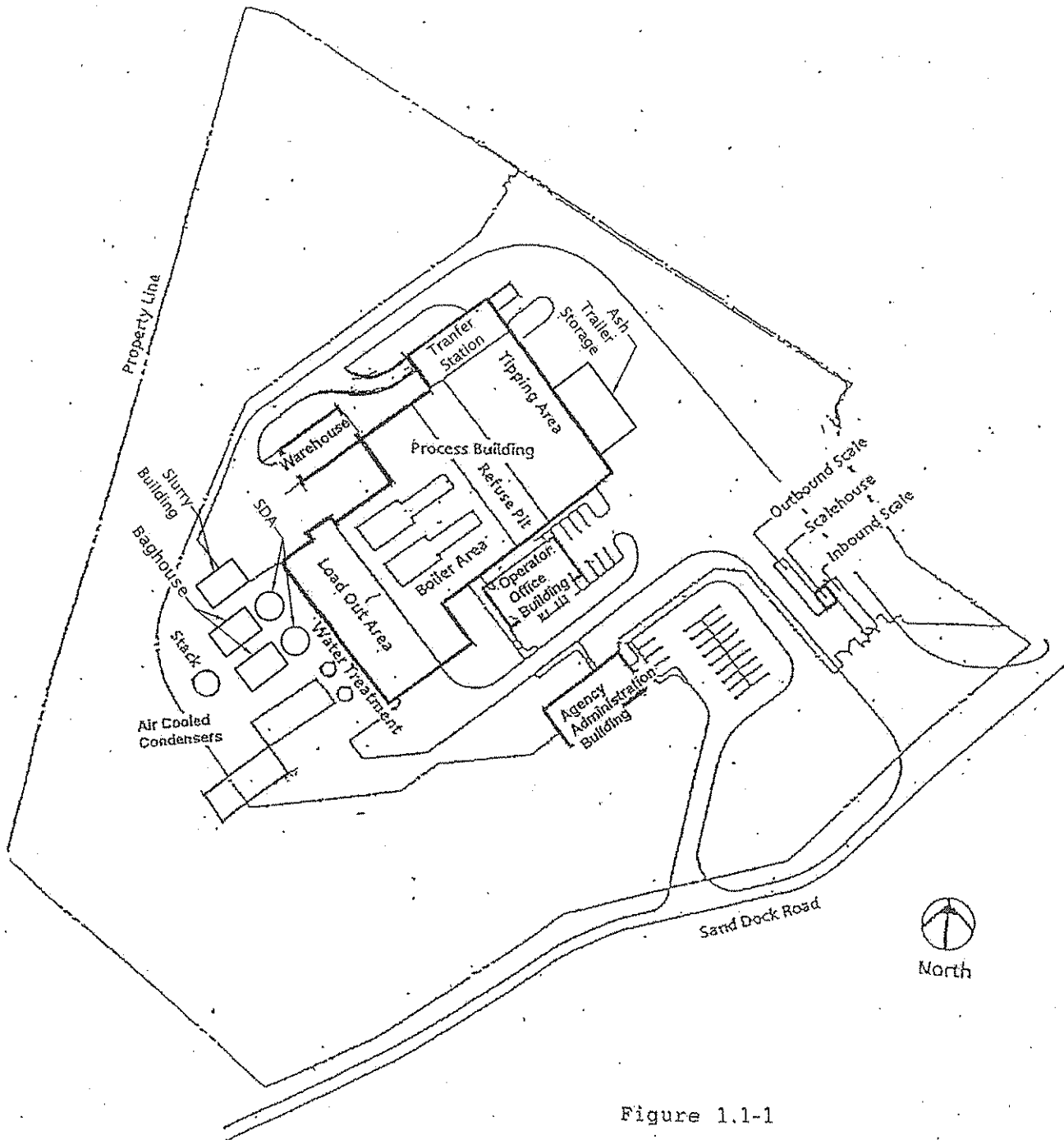
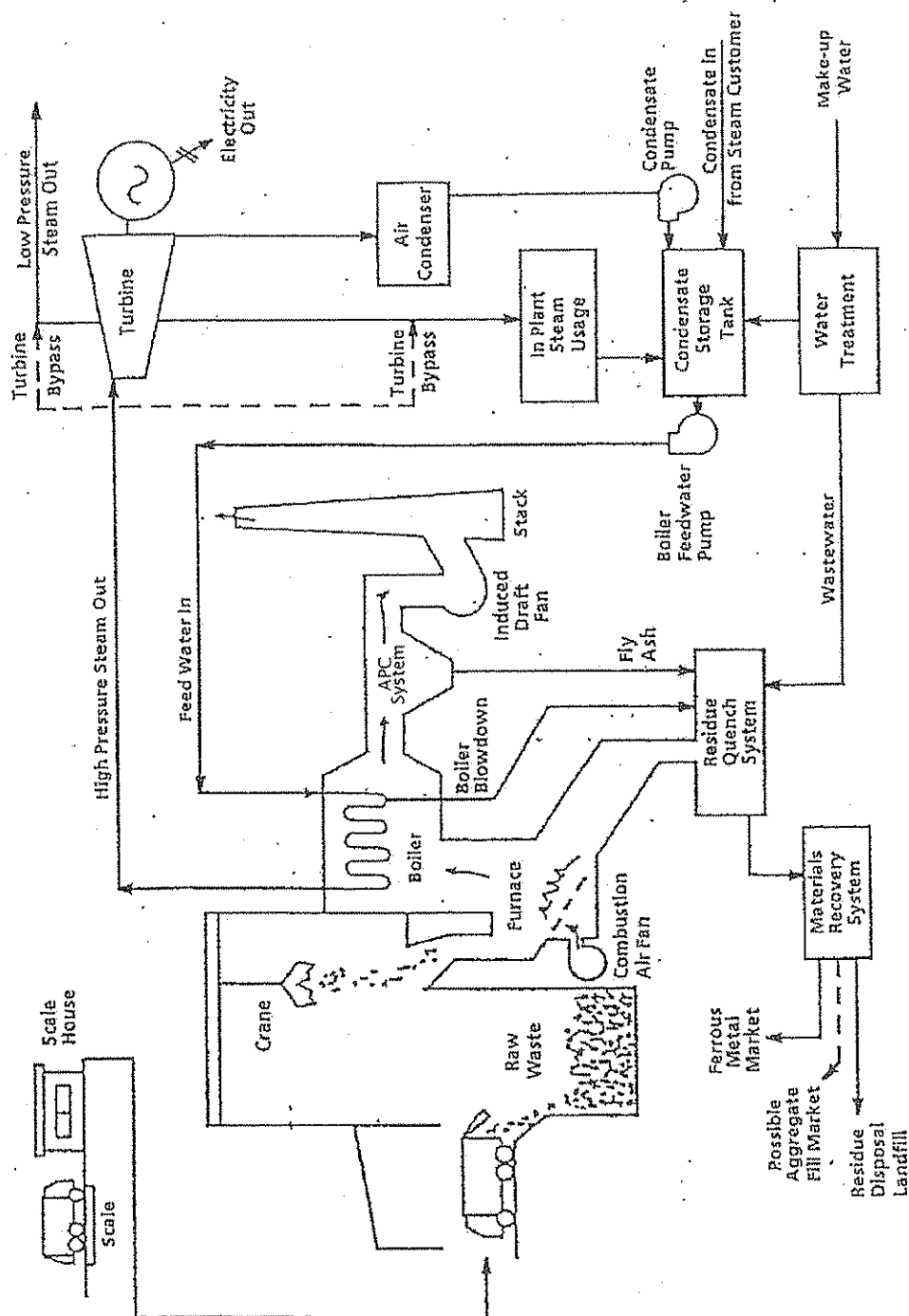


Figure 1.1-1  
General Site Layout





Schematic Flow Diagram

Figure 1.1-2

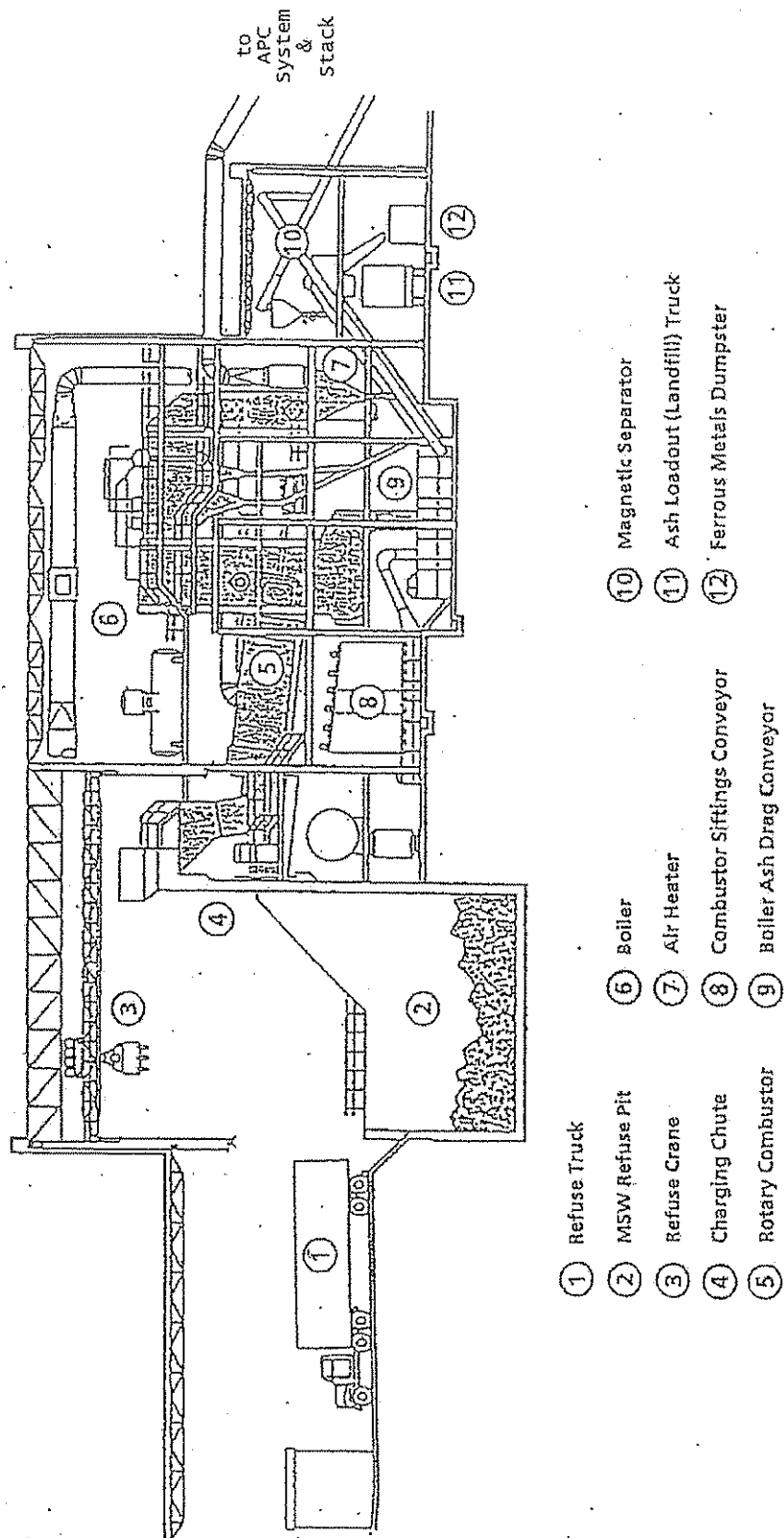
The process building contains the tipping floor, the waste storage pit, two waste processing lines, residue transfer and loading equipment, the turbine generator, the control room, and maintenance areas. A cross-section is shown in Figure 1.1-3. Amenities such as toilets, showers, and locker facilities are also provided. An enclosed stairway allows access to several walkways, which permit viewing of key operations.

Paved roads and maneuvering and staging areas allow refuse delivery trucks access to the enclosed tipping area via a single roll-up door in the plant east wall and progress through a separate roll-up door on the plant north wall. The tipping area is of sufficient size to permit six compactor type trucks to unload simultaneously into the storage pit

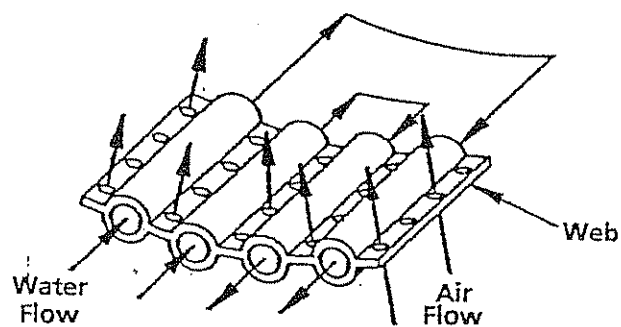
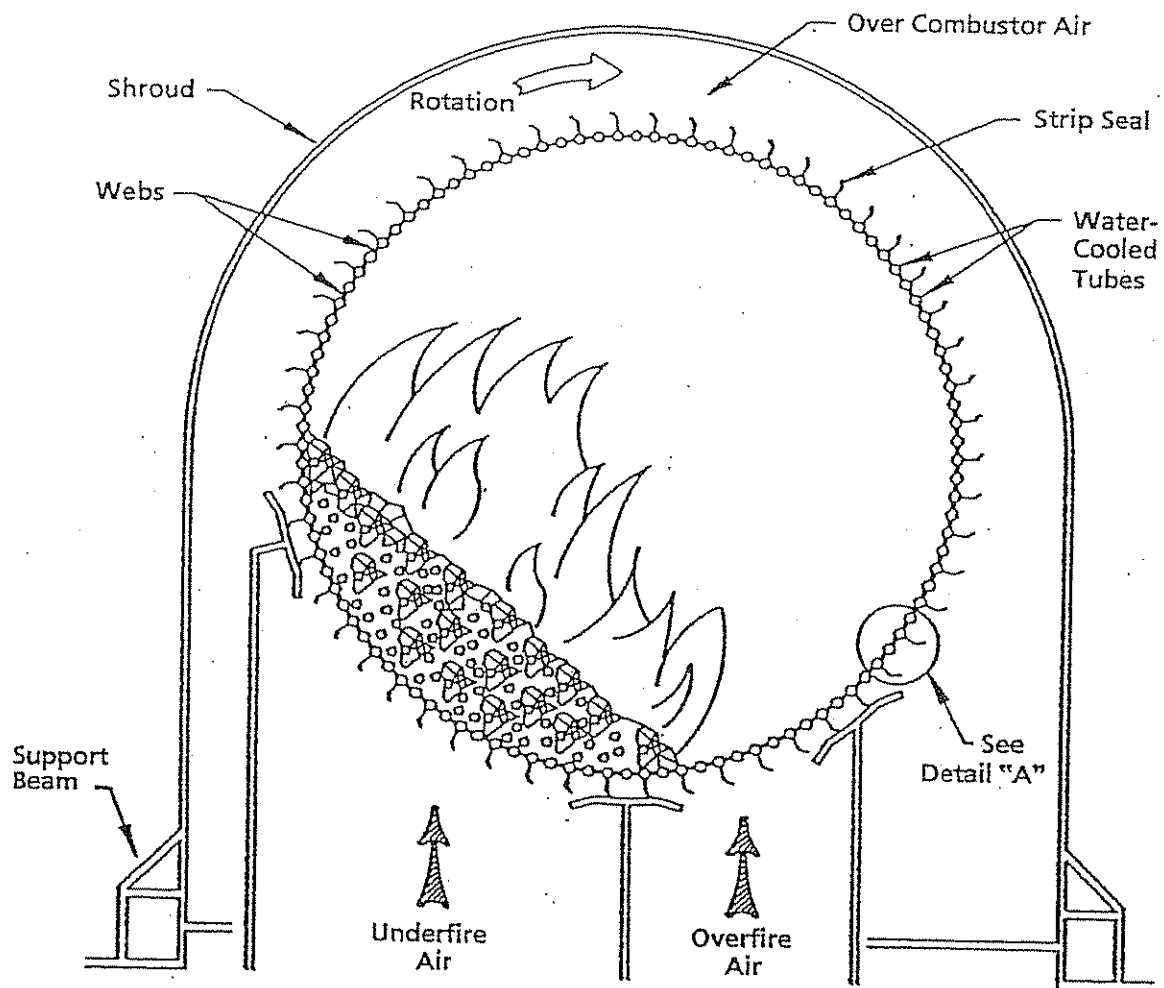
An extension on the plant west side of the tipping area provides the capability of loading material from the tipping floor into transfer trailers sited in a depressed load out aisle at the plant west side of the tipping floor.

Two overhead cranes travel the length of the refuse pit to charge the furnaces and allow sorting and mixing of refuse, as well as removal of oversize and non-processible items. The entire contents of the pit can be loaded out if necessary by utilizing the overhead crane. The crane operator's pulpit is located high on the pit wall opposite the tipping floor area, enabling the operator to view the tipping floor area and visually examine the contents of each truck as it is being discharged. Waste is deposited by the cranes into one of the two charging hoppers, each leading to a separate combustion unit.

The Facility uses the Westinghouse/O'Connor rotary combustor technology. The combustor consists of a hollow cylinder constructed of water tubes connected by perforated plates as shown in Figure 1.1-4. The cylinder rotates slowly on a slightly inclined horizontal axis. Waste is introduced into the upper end of the cylinder by a hydraulic ram and burns as it tumbles down toward the cylinder exit. Water circulates through the tubes cooling the cylinder walls. Combustion air enters the inside of the barrel through perforations in the web plates connecting the tubes. The cylinder rotates inside a housing, which forms a sectionalized air plenum to



Section Through Process Building



Detail "A"

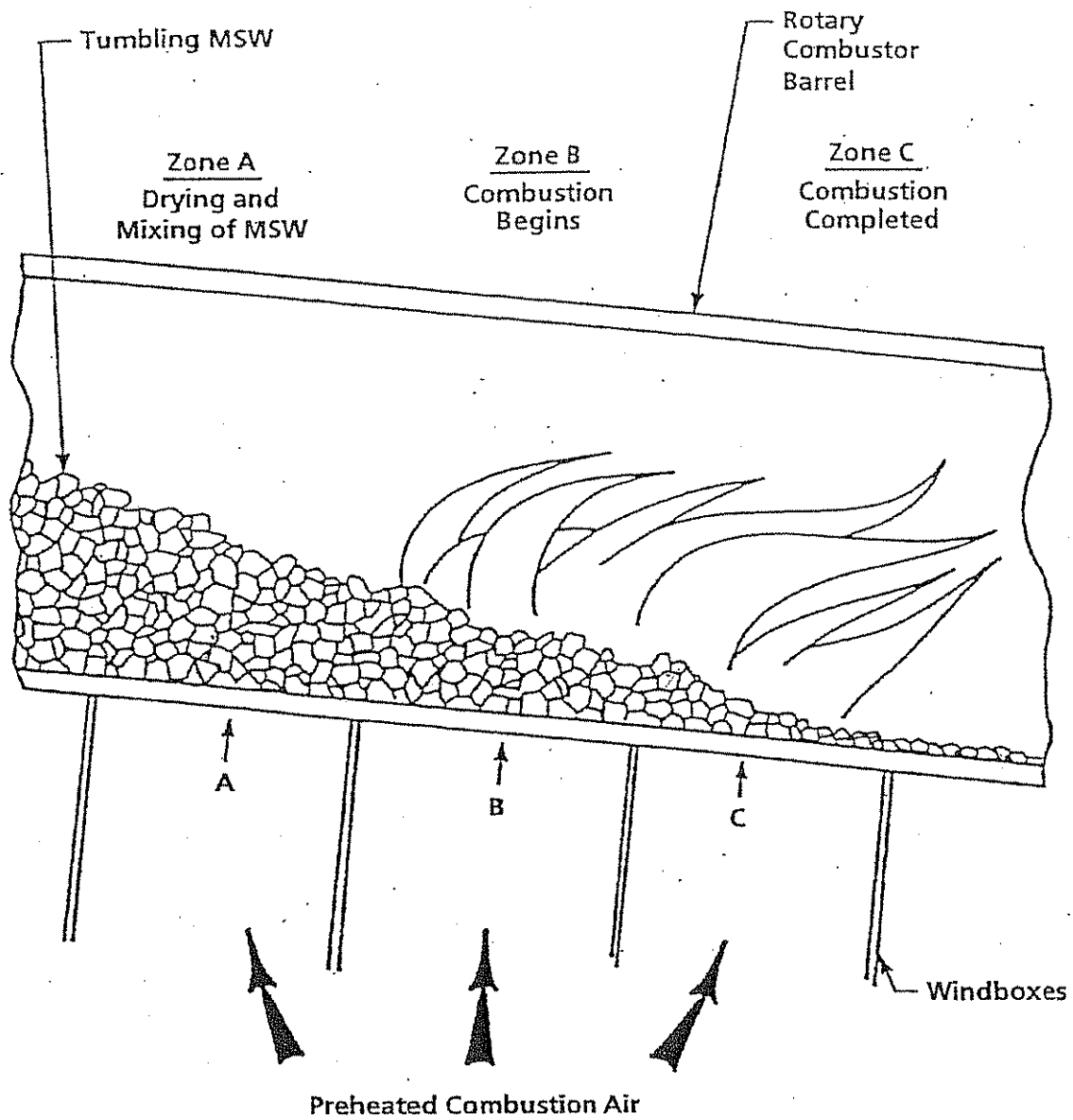
Cross-Section of the Westinghouse O'Connor Water-Cooled Rotary Combustor

distribute the air along the axis of the combustor as shown in Figure 1.1-5. Combustion air is drawn from the refuse pit and tipping area by forced draft fans through a heat exchanger for preheating and introduced into the combustion chamber. Residue from combustion in the rotary combustor is discharged onto a traveling grate where final combustion takes place.

The combustion gases flow upward through a waterwall type radiant section of the boiler, horizontally through water tube banks constituting the superheater and evaporator sections and downward through the air preheater and economizer. The boilers produce superheated steam at 700°F and 630 PSIG. The gaseous products of combustion flow from the boiler to the APC system. The APC system consists of a Spray Dry Absorber (SDA) for the removal of acid gases and Powdered Activated Carbon (PAC) injection for the control of mercury and total dioxins/furans followed by a fabric filter for the removal of particulate matter. From the fabric filter the gases are exhausted by induced draft fans and discharged through a 200-foot high multi-flue stack.

Fly ash is removed from the filter bags by reversing the airflow through the bags. It is then collected in hoppers and conveyed by screw conveyors to the process building. It is collected in a surge hopper and fed into pug mill type mixers where it is mixed with water for dust control. The resulting mixture is mixed with the bottom ash at the residue load out area.

Bottom ash drops from the traveling grate into a water filled trough to quench any particles that might still be actively burning and cool the ash for further handling. The bottom ash is carried up an inclined ramp by flight conveyors, which allow some of the excess moisture to drain back into the quench tank. The inclined conveyors of both units discharge onto a vibrating conveyor, which moves the ash to a grizzly scalper for removal of large oversized objects. The underflow from the grizzly is discharged to a short cross conveyor and passes under a rotating electromagnet, which extracts most of the ferrous metals from the bottom ash. Another conveyor for loading then elevates the ash into trailers for removal from the site and disposal. Fly ash is mixed with bottom ash just prior to discharge into the trailers.



Combustion Air Zones of the Westinghouse O'Connor Combustor

Figure 1.1-5

Wastewater is treated and reused as make-up for the residue quench trough. Blowdown from the boilers, wastewater from the refuse pit, plant drains, and other sources are collected in a neutralization tank for pH adjustment. Wastewater then passes through a clarifier prior to reuse. Excess wastewater is discharged and pumped to the local municipal sewage treatment plant.

Steam generated in the boilers is piped to a turbine located in the process building. The turbine is of the controlled extraction type. A variable quantity of steam can be extracted at 175 PSIG for export and sale, although no steam is currently sold for economic reasons. Some steam is extracted for in plant uses. The remainder of the steam passes through the low-pressure section of the turbine and is condensed in an air-cooled condenser. Condensate is then returned to the deaerator storage tank.

## **1.2 SECURITY, SAFETY AND EMERGENCY CONTINGENCY PLANS**

The Agency has adopted measures to protect the general public, operator personnel, and Agency personnel from injury and to protect the Agency's records, equipment and other property from destruction, theft and vandalism. These measures include limiting unauthorized access to the Facility site. The scale operator monitors all vehicles entering and departing from the main entrance. Vehicles other than those of authorized users of the Facility must obtain permission to enter the site. Visitors can also access the site through the Agency administration building.

A security fence surrounds the Facility. The scale house entrance (main entrance off Sand Dock Road) has a gate, which is locked during non-delivery hours. Only authorized personnel have keys to the gate lock. An intercom telephone station is located outside the gate so that persons desiring access during times when the gate is locked can contact the control room operator to request access. A television camera located on top of the process building constantly monitors the main entrance.

Outdoor lighting is provided at several areas including both entrances along Sand Dock Road, in the employee and visitor parking lots and at the scale house. Locked doors protect the equipment inside the scale house when the scale house is locked.

Restricting access to authorized personnel protects records and account information housed in the administration building. Electronic copies of all accounting information are stored off site.

Arrangements have been made with the Dutchess County Sheriff to provide routine security patrol along Sand Dock Road. Visitors to the Facility are not admitted to potentially dangerous areas. Such areas are posted with signs restricting access to authorized personnel only.

The contractor is responsible for safe operation of the Facility. The contractor provides a training program for all new employees. The program covers notification procedures in case of fire, spills or other such events; methods to identify emergency situations; emergency preventative measures; medical procedures in case of injury; and safety procedures in the event of fire, explosion, and spills. Safety procedures include instruction on the use of personal protective equipment (PPE) and clothing. The contractor has provided a safety manual (under separate cover) at the site that develops site safety rules and regulations. The personal PPE required for/by New York State Department of Environmental Conservation (NYSDEC) personnel during site visits includes hard hats, safety glasses, and steel toed shoes.



## **2.0 FACILITY OPERATIONS AND MAINTENANCE**

### **2.1 OPERATIONS PLAN**

#### **2.1.1 FACILITY OPERATIONS**

The Facility is owned by the Dutchess County Resource Recovery Agency (Agency) and is operated by Covanta Hudson Valley Renewable Energy LLC a subsidiary of Covanta Energy Inc. under an Amended and Restated Service Agreement (Service Agreement) effective as of August 20, 1998, and having a term of 16 years from that date.

The Facility is located on an 11-acre site on Sand Dock Road in the Town of Poughkeepsie, about four miles south of the Mid-Hudson Bridge of Poughkeepsie. There are four separate structures on the site, a process building, a scalehouse, and an operator's office building, and an Agency administration building. The process building houses the tip floor, waste storage pit, combustion equipment, ash handling equipment, the turbine-generator, and auxiliary processing equipment.

The Facility can process up to 456 tons of municipal solid waste (MSW) per day and is permitted by the NYSDEC to process 164,250 tons of MSW per year. The combustion process utilizes the O'Connor/Westinghouse rotary combustor technology. Unsorted (except for grossly oversized pieces) MSW is fed into a water-cooled rotating combustor. The hot combustion gases pass through a boiler, where the energy in the gases is recovered in the form of steam. The steam is used to drive a turbine, which is connected to a generator generating electrical energy. The Facility has a demonstrated capacity of 456 tpd of solid waste and is currently permitted by the NYSDEC to process 456 tpd of solid waste on an annual average or 164,250 tons per year. The following is a brief summary of the process used at the Facility:

**Step 1. Solid Waste Delivery** - Vehicles pass over a 60-ton weigh scale upon entering the site. Vehicles then enter the tipping floor area of the process building, and dump their contents into the storage pit. The storage pit can hold 2,000 tons of MSW below the tipping floor level. There are six bays available for simultaneously discharging waste in the pit.

**Step 2. Charging** - Overhead cranes lift the MSW from the pit and feed it into the charging hopper of each of the two processing lines. Hydraulic rams then push the MSW into the combustors.

**Step 3. Combustion** - The waste is burned in rotary combustors at a maximum temperature of 2,000 degrees F. Each combustor is a slightly inclined revolving drum made of heavy gauge water-carrying tubing that is welded together with perforated metal plates. The perforated plates allow combustion air to pass from plenum outside the drum through the walls of the drum to the inside. The incline of the combustor causes the MSW to tumble down the drum as it burns.

The combustor is divided into three sections called zones. The first, Zone A, is primarily for drying the MSW. The main combustion takes place in the second, Zone B. The third zone, Zone C, is to ensure complete combustion. Each zone is supplied with both underfire air from below the bed of burning MSW and overfire air, introduced above the bed.

As the MSW burns, hot combustion gases are formed. The energy in these gases is recovered as high-pressure steam in the boiler system. The boiler system has five components, the combustor itself, and a radiant section of waterwall construction, pendant type superheaters, a two-drum convection section, and an economizer.

**Step 4. Energy Recovery** - About one third of the energy recovery takes place in the combustors. Steam produced in the boilers is delivered to a turbine. The turbine is connected to a generator, which generates electrical energy. About one fifth of the energy generated is used to operate the Facility; the rest is delivered into the Central Hudson Gas and Electric Corporation's distribution system at its Sand Dock Road substation.

**Step 5. Ash Residue Management and Materials Recovery** - The residue remaining after combustion (bottom ash) is dropped into a water-filled quench tank. It is removed from the quench tank by a flight conveyor and dragged up an incline to allow most of the moisture to drain off. It is then conveyed first to a grizzly scalper to remove oversize pieces, then under a drum magnet to remove ferrous metals, and finally raised by a loadout conveyor for loading into trailers. Fly ash collected in the fabric filters is conveyed back to the process building to be conditioned with water for dust control before being mixed with bottom ash on the loadout conveyor.

Wastewater is treated with chemicals and reused in the quench system to the extent possible. Excess wastewater is discharged to the Arlington Sewer District Treatment Plant of the Town of Poughkeepsie.

**Step 6. Emissions Control** - Combustion gases leave the economizer section of the boiler at about 400 degrees F and are ducted to the emission control system (ECS). The ECS consists of a SDA followed by a PAC injection system and a six-compartment reverse air fabric filter. Cleaned gases are drawn through the ECS by an induced draft fan and then discharged through a 200-foot high stack.

### 2.1.2 ODOR, DUST AND LITTER

Housekeeping routines and grounds maintenance are performed regularly to ensure that dust and dirt do not accumulate and that the grounds are maintained free of litter and debris. Spillage is cleaned up as it occurs; and the grounds, roadways, and the condition of incoming trucks are continuously monitored by the scale operator. The entire site is fenced with chain link; and the fence line inspected and cleared of entrapped litter or debris as required and permitted by weather.

All floors are drained free of standing water. All pumps will be properly maintained. Floors are cleaned either by a vacuum system or by high-pressure washdown as required. Cleaning also includes handrails, windowsills, expanded metal walkways, and the tops of accessible equipment.

The tipping floor and storage pit area are fully enclosed in the process building.

The air in the tipping hall will be used as combustion air so that negative pressure is maintained in the tipping hall. This negative pressure will prevent the escape of odors to the atmosphere and will control the dust levels in this area to comply with OSHA standards for dust levels. The OSHA standard for total dust of 15mg/m and for the respirable fraction of 5mg/m averaged over an 8-hour day and 40-hour workweek will be maintained at all times.

Ash residue will have a moisture content of about 25 percent as the result of quenching. This moisture will prevent the escape of fugitive dust emissions from the residue as it is handled inside the buildings and transported from the Facility to the disposal site.

### 2.1.3 NOISE CONTROL

Equipment in this Facility that emits significant levels of noise include air compressors, pumps, condensers, electric motors, forced and induced draft fans, turbine-generators, air cooled condensers and high-pressure steam piping and valves. Secondary noise sources include the residue transport trucks, supply trucks, visitor vehicles, and employee vehicles. Vehicular noise does not have a significant impact on the ambient noise levels.

In order to control noise, the Facility incorporates equipment with the lowest noise emissions available whenever practical. Noise produced during operation of the Facility is attenuated by buildings fully enclosing the tipping area and process system; a buffer area of vegetation and distance to the nearest residential area; paved roadways within the Facility site; and the natural ridge which will serve as a sound barrier between the Facility site and the residential area to the east. Equipment specifications for the Facility require the lowest, technically feasible noise levels emitted by the equipment. Noise control devices have been added on or built into machinery or Facility structures when suppliers are unable to provide low-level noise emission equipment. In addition, all equipment is operated within the design conditions of pressure and speed to minimize noise generation. Restricting the delivery acceptance time to daytime hours minimizes the noise impact due to the movement of solid waste delivery vehicles.

### 2.1.4 VECTOR (PEST) CONTROL

Vector control is achieved by the operation of the crane to continually rotate the stored MSW, routine washdown of the tipping floor area and maintenance of a litter free site and removal of waste that is not going to be combusted (i.e., bulky waste). To ensure a vector-free Facility, insect and rodent control is performed as needed and not less than monthly. Commercial contractors perform this work. The Facility is monitored for evidence of insects and rodents during normal inspections. A local contractor is hired to perform vector control services.

## 2.1.5 FACILITY RECORDS AND AS-BUILT DRAWINGS LIST

A list of the construction drawings is contained in the Appendices to this section (see Appendix 2-1 located at the end of this section). Actual drawings are on file with the NYSDEC.

## 2.2 MAINTENANCE PLAN

The achievement of a high level of availability and reliability depends on the implementation of a maintenance plan which ensures that all major systems receive proper periodic preventive maintenance and that equipment which has exceeded its estimated service life is replaced before it causes a disruption of operations. The Operator has the basic responsibility for maintaining all systems at the Facility. Plant personnel under the supervision of the Maintenance Superintendent perform routine maintenance. Major maintenance, particularly if it requires the shutdown of one or both processing lines, is performed by outside contractors during one of the two annual scheduled outages.

### 2.2.1 OPERATOR'S RESPONSIBILITIES

The Operator is responsible for maintaining all civil, mechanical, and electrical systems at the Facility. To fulfill this responsibility, the Operator's staff includes a maintenance group headed by the Maintenance Superintendent and including six mechanics, two electricians, and an instrument technician. The maintenance staff is responsible for carrying out the maintenance plan, including routine responsibilities such as performing inspections and lubrication, and repairing minor pieces of equipment such as pumps and instruments.

Keeping the site clean and free of litter is the responsibility of the Shift Supervisor on duty. A mechanical sweeper is used for the cleaning of site roadways, the tipping floor, and the ash load-out area.

Major maintenance of the combustion system and the electrical generation system is performed during one of two annual scheduled outages. A short outage is generally scheduled during September with each combustion line shut down for three to five days. There may or may not be a period of outage of both lines during which work on common elements such as

the turbine and generator can be performed. The primary purpose of the fall outage is to inspect the boilers so that the required extent of boiler maintenance during the next spring outage can be determined.

The longer outage is generally scheduled for February or March to coincide with the period when waste deliveries are generally low. During this outage, major maintenance is performed on the boilers, including replacement of tubes of less than the required minimum wall thickness, weld overlays on other tubes, sections of the combustors and boiler waterwalls, and replacement of worn refractory. Combustor seals are repaired, and air leaks in the ductwork repaired. There may be a turbine inspection and maintenance, and maintenance of the feed chutes, conveyors, air-cooled condensers and fabric filters. Most of this work is performed by outside contractors.

### 2.2.2 AGENCY'S RESPONSIBILITY

The Agency is responsible for maintaining the truck weigh scale and appurtenant systems, including the scale house, the scales themselves, and the scale computer system. The Agency is also responsible for maintaining utility lines outside the site boundary, including the water line from the meter pit at IBM and Barnegat Road to the site and the sewer line from the site to the discharge point at the Arlington Sewer District Wastewater Treatment Plant. The Town of Poughkeepsie personnel perform actual work.

The hauling contractor owns tractors and trailers for hauling residue and bypass waste and maintenance is included in the cost of hauling.

### 2.2.3 PREVENTIVE MAINTENANCE PLAN

The Facility staff includes a full-time maintenance staff. The maintenance staff is responsible for maintaining all plant equipment. Maintenance activities include equipment inspection, lubrication, repairs, part replacement and preventative maintenance measures.

The preventive maintenance program includes inspection of equipment and systems; identifying worn parts; operating processes effectively; and keeping records of the processes, system changes, and maintenance. The preventative maintenance program implemented at

the plant is computer-based and provides feedback data concerning materials, parts, labor, and equipment condition, as well as the scheduled tasks to be performed. Any problems or unusual conditions found are retained as part of the permanent history of the equipment. The history of each piece of equipment includes design and shop data, installation and start-up information and data, corrective maintenance and/or repair records, spare parts requirements and usage, and other information and data pertaining to the life of the equipment.

## 2.2.4 COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM

EAM is a set of sophisticated computer programs that support maintenance operations through eleven modules: Assets, Budget, Equipment, Inventory, Labor, Purchasing, Scheduling, Statistical Predictive Maintenance, Task, Work Orders and Work Request. EAM is fully integrated, so information entered in one module does not have to be reentered in another module. Each module supports a specific aspect of maintenance operations or system management.

The following is a summary description of each module.

### 2.2.4.1      BUDGET

Track projected and actual costs, and then analyze discrepancies between these costs.

### 2.2.4.2      EQUIPMENT

Create facility equipment records in order to track equipment maintenance and costs.

### 2.2.4.3      INVENTORY

Create inventory records for all parts used to maintain the facility equipment. Store parts at multiple locations, and check out parts to employees, equipment, work orders, cost centers, or locations.

### 2.2.4.4      LABOR

Track the number of labor hours and the cost of labor for each maintenance task in two ways – by craft or by employee. You may track employee attendance exceptions (overtime, vacation, etc.), and you may monitor employee training and skill levels.

#### 2.2.4.5      PURCHASING

Create quotations to request item prices from vendors, and then generate requisitions from selected quotations and from items in inventory, which have reached their reorder points. Approve requisitions, and then generate purchase orders from these requisitions. Receive ordered items to stock, cost centers, employees, work orders, or equipment.

#### 2.2.4.6      SCHEDULING

Specify the normal workweek and exceptions for the facility and each employee. You may view the current and projected workload in the Work Order Scheduling form and adjust the workload as necessary.

#### 2.2.4.7      STATISTICAL PREDICTIVE MAINTENANCE

Set up a predictive maintenance program to identify equipment readings that are outside control limits, alerting you to schedule maintenance before equipment breaks down. You may base these controls either on manufacturer's specifications or on the equipment's performance history.

#### 2.2.4.8      TASKS

Schedule tasks (by meter or by date) that are performed repeatedly, and EAM automatically generates work orders for the tasks each time they are due.

#### 2.2.4.9      WORK ORDERS

Create work orders for unscheduled work, or generate work orders for due tasks. You may print work orders for reference while completing the work. You may then specify parts and labor used for the work.

#### 2.2.4.10      WORK REQUESTS

Create call-in requests for tenants requesting service, and allow company employees to submit on-site requests. EAM tracks the status of submitted call-in requests and stores on-site requests in On-site Request History.



## 2.2.5 PLAN AND PROCEDURES FOR ALL ROUTINE AND LONG-TERM MAINTENANCE

The maintenance, repair and replacement actions are treated in three categories:

- Routine maintenance;
- Scheduled major repairs and replacements; and
- Extraordinary repairs and replacement.

### 2.2.5.1 ROUTINE MAINTENANCE

Routine maintenance is defined as preventative and includes all maintenance actions normally incident to the operation of a municipal resource recovery facility and maintenance, which does not result in a shutdown of operations affecting throughput of product. Examples include:

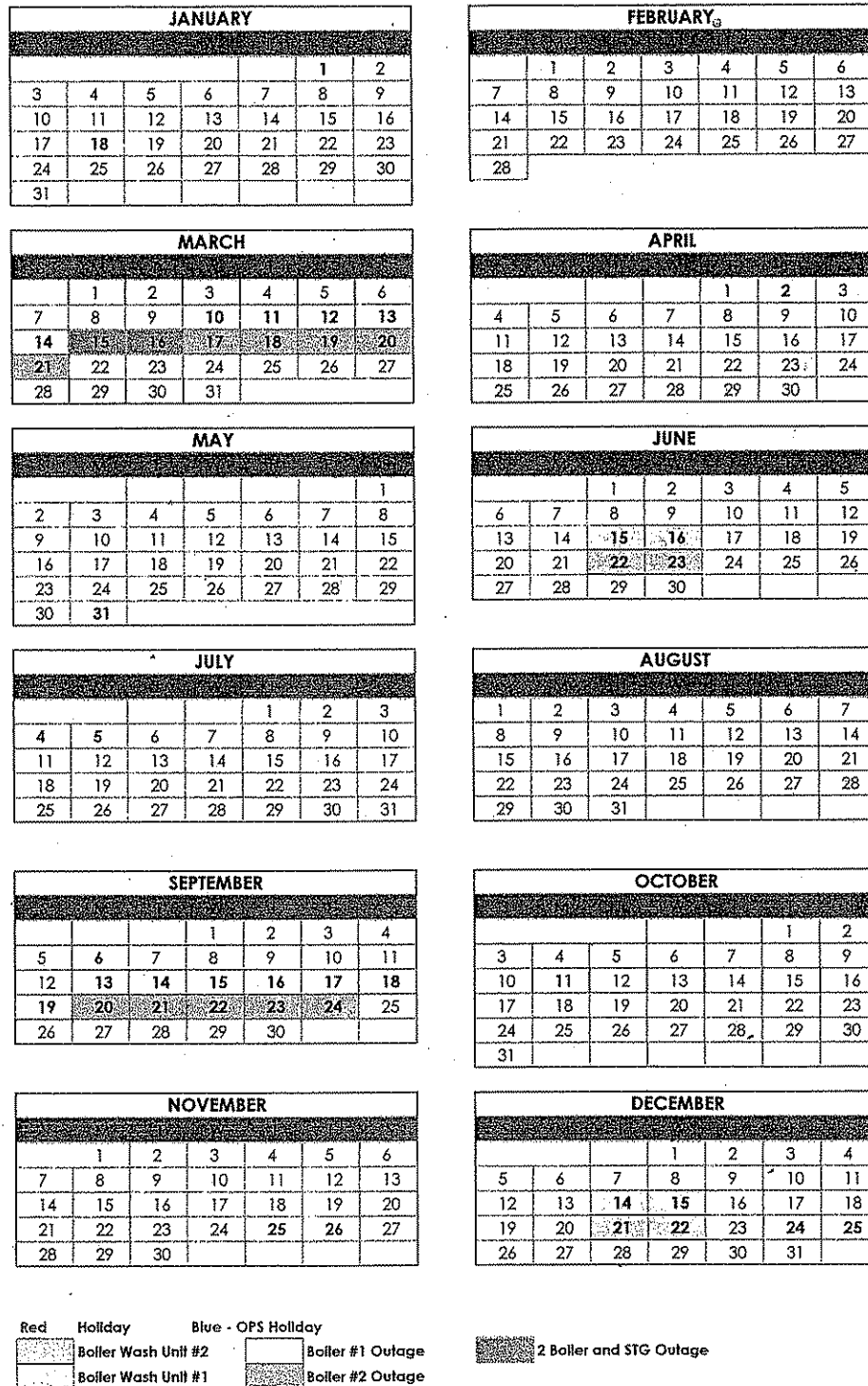
- Lubrication of equipment;
- Repair or replacement of valves and drain traps;
- Overhaul of pumps, fans, air compressors, motors, circuit breakers and controllers;
- Repair of air pollution control equipment;
- Calibration and repair of instrument and control systems;
- Repair of waste handling cranes;
- Repair of ash and siftings conveyors;
- Normal housekeeping items, such as replacement of light bulbs, furniture, cleaning, painting, grounds maintenance and minor structural repairs; and
- Vehicle maintenance.

## PLANNED OUTAGES

As part of routine maintenance, the Operator has developed a schedule for planned outages of the plant. Figure 2.2.5.1-1 shows typical planned outages for the year 2009 schedule. Inspections of the boiler furnaces and insides of the steam drums are performed semi-annually. The turbine-generator is shut down for inspection at approximately five-year intervals. Individual equipment peculiar to one line can be shut down for inspection and maintenance, while the plant continues in operation.

Figure 2.2.5.1-1

## Covanta Hudson Valley LLC 2010 Outage Schedule



#### 2.2.5.2      SCHEDULED REPLACEMENTS AND MAJOR REPAIRS

Scheduled replacements, which can be predicted, based on limited equipment lifetimes, include major items "above and beyond" routine maintenance and repair. Components of the plant are of power plant grade, with expected lifetimes well in excess of 20 years, so replacement or major repair of this equipment is not expected.

#### EXPECTED EQUIPMENT LIFE

The design of the Facility provides a high degree of reliability. Planned downtime for preventive maintenance is scheduled to take advantage of periods of less than average MSW deliveries primarily during the first quarter of the year. The multiple train design of the Facility provides some redundancy needed to continue operations when a component fails. Within each system, including material handling cranes, pumps, motors, there is design redundancy that allows for continued operation if one piece of equipment fails.

All equipment for the plant is of power plant grade and construction. Each is fabricated to exacting specifications and by reliable, performance proven vendors. Plant operating personnel are thoroughly trained in the proper operation of each item of equipment and have carefully prepared written procedures to follow. Maintenance of equipment is scheduled and rigidly implemented.

A list of the major equipment components with their expected service life is given in Table 2.2.5.2-1.

Table 2.2.5.2-1

## Major Component Repair and Replacement Estimate

EQUIPMENT	YEARS			
	1-5	6-10	11-15	16-20
Turbine Generator Minor Inspect	x	2x	x	x
Turbine Generator Major Inspect	x	x		2x
Turbine Generator Blades			Replace	
Generator Brushes		Replace		Replace
APC Filter Bags & Cages	Replace 2x	Replace 3x	Replace 2x	Replace 3x
APC Lime Venturi Duct Section	Replace	Replace	Replace	Replace
Motors, Large		Rewind		
Demineralizer Cation & Anion	Replace	Replace	Replace	Replace
Combustor, Rotary Joint	Rebuild	Rebuild	Rebuild	Rebuild
Combustor, Drive Bearing				Replace
Combustor, Thrust Bearing			Replace	
Combustor, Thrust Roller	Replace	Replace	Replace	Replace
Combustor, Drive Motor	Replace	Replace	Replace	Replace
Combustor, Drive Chain & Gear			Replace	
Combustor, Ram Liner	Replace	Replace	Replace	Replace
Combustor, Seals, Radian & Axial	Replace	Replace	Replace	Replace
Combustor, Hydraulic Pump	Rebuild	Rebuild	Rebuild	Rebuild
Combustor, Resistance Door Cyl			Rebuild	
Combustor, Feed Chute Wear Plates		Replace	Replace	Replace
Boiler Superheater Tubes	Replace	Replace	Replace	Replace
Boiler Refractory	Replace 2x	Replace 3x	Replace 2x	Replace 3x
Boiler Sootblower Tips		Replace		Replace
Boiler Traveling Grate			Rebuild	
AC Condenser, Motor & Fan		Replace		Replace
Forced Draft Fan				Replace
Induced Draft Fan				Replace
Instrumentation, TV Camera	Replace	Replace	Replace	Replace
Oxygen, CO & Opacity Monitors	Replace	Replace	Replace	Replace
Air Compressor & Pump		Rebuild	Rebuild	Rebuild
Cranes, Cables & Sheaves	Replace	Replace	Replace	Replace
Conveyor, Siftings	Rebuild	Rebuild	Rebuild	Rebuild
Conveyor, Ash System	Rebuild	Rebuild	Rebuild	Rebuild
Buildings, Roof Insulation	-----Repair/Replace-----			
Roads, Seal & Resurface	Repair 2x	Repair 2x	Repair 2x	Repair 2x
Refuse Storage Pit, Concrete	Repair	Repair 2x	Repair	Repair 2x

## 2.2.6 REPAIR PARTS

Returning components to service as soon as possible after breakdown is essential to maximizing plant availability. Adequate repair parts are available to do this. In addition to consumables for routine maintenance (gaskets, packing, lubricants, chemicals, etc.), the following types of repair parts are stocked.

- Wearing rings, bearing, and seals for pumps;
- Bearing, steam seals and oil seals for turbines;
- Bearings and gears for the waste cranes and for gear-driven machinery;
- Bearings for motors;
- Replacements for valves and drain traps;
- Parts for circuit breakers and motor controllers; and
- Parts for instrument and control devices.

## 2.2.7 MAINTENANCE OF ENVIRONMENTAL CONTROL SYSTEM

To assure continual compliance, special attention is given to checking and maintaining the emission control equipment. The emission control system consists of the SDA, the PAC injection system, baghouse, ash conveyors, and continuous emission monitors. As an example of the type of maintenance performed, Table 2.2.7-1 shows the lubrication schedule for the baghouse and ash conveyors. Both the Shift Operator and Shift Supervisor review the checklist.

**Table 2.2.7-1**  
**Lubrication Schedule for Emission Control System**

Equipment		Lubrication Check
1.	Baghouse Ash Draft Conveyor	
1.1	Motor Bearings	Yr
1.2	Reducer	Qtr
1.3	Chain Drive	Qtr
1.4	End Bearings	Month
1.5	Idler Shaft Bearings	Qtr
2.	Baghouse Screw Conveyors	
2.1	Motor	Yr
2.2	Gear Box	Qtr
2.3	End Bearings	Wk
2.4	Carrier Bearings	Wk
3.	Reverse Air Fan	
3.1	Drive Shaft Bearings	Wk
3.2	Motor	Yr
4.	Popet Oilers	
4.1	Boilers	Wk

## 2.2.8 PREVENTIVE MAINTENANCE

The EAM program provides a historic record of all maintenance inspections and work completed on all equipment and components for the Facility. General Facility equipment and systems such as the HVAC systems, fire-protection systems, piping systems, rolling stock, and the building itself are included in the PM program.

The EAM program is capable of being used to schedule PM tasks and inspections, anticipate future maintenance requirements, and are used to maintain spare parts inventory. Records are updated daily for the system. As a minimum, information recorded includes: task completed, date task completed, personnel responsible for maintenance, time required for maintenance, materials required for maintenance and notable comments concerning other tasks not completed. The PM program file includes basic information concerning the equipment item including equipment name, equipment number, location in plant; reference to appropriate operation manual section, specifications, drawing, and shop drawings, physical description; manufacturer, manufacturer's address and phone number; and tools and parts required for maintenance.

Routine maintenance is defined as preventative and includes all maintenance actions normally incident to the operation of a municipal Waste-to-Energy Facility. Such maintenance is performed without interruption of Facility operations, or during scheduled maintenance outages. Typical examples of routine maintenance include:

- Lubrication of equipment;
- Repair or replacement of valves and drainpipes;
- Overhaul of pumps, fans, air compressors, motors, circuit breakers and controllers;
- Repair of air pollution control equipment;
- Inspection and maintenance of the turbine generator, including opening of castings, removal or rotors, inspection, reinstallation or rotors;
- Calibration and repair of instrument and control system;
- Annual boiler inspection and repair;
- Repair of waste handling cranes;
- Repair of waste chutes and charging rams;
- Repair of ash and siftings conveyors;

- Normal housekeeping items, such as replacement of light bulbs, furniture, cleaning, painting, grounds maintenance and minor structural repairs; and
- Vehicle maintenance.

Semiannual inspections of the boiler furnaces and insides of the steam drums are performed. The turbine/generator is shut down for inspection at approximately five-year intervals. During such intervals, refuse disposal operations continue. Equipment and system redundancy allows individual equipment to be shut down for inspection and maintenance while the Facility continues in operation.

Two refuse cranes are provided. During operation, one crane is used to manage refuse in the pit during peak delivery periods and provide assistance to the feed crane during period of high refuse throughput. Both cranes are sized to individually handle the full capacity of the Facility during operations.

The turbine/generator is sized to handle 100% of the full Facility steam flow. If an unscheduled shutdown of the turbine generator should occur, the Facility can continue to dispose of refuse. The air-cooled condenser can be used for condensing steam with the turbine/generator bypass desuperheating system. IBM may also be requested to resume delivery of steam. The residue handling system ensures that combustion residue can be continuously removed from the Facility and that boiler availability is not affected by a shutdown of the residue handling equipment.

In order to minimize downtime, proper maintenance of all systems is given high priority. Maintenance personnel are highly qualified technicians trained in their specific crafts. The Facility is designed to accommodate routine preventive maintenance and emergency maintenance without disrupting refuse disposal and generation of saleable energy. In the event of an unscheduled Facility outage due to equipment/system failure, plant staff works to correct the problem and return the Facility on-line in a timely manner.

The Operator employs a skilled permanent maintenance staff. Normal maintenance tasks such as recabling of cranes, replacement of motors, packing of pumps and valves, lubrication, on-going preventive maintenance for combustor and boilers, conveyor repairs, etc., are performed by the regular maintenance staff.



## 2.2.9 SPARE PARTS INVENTORY

The Spare Parts Inventory list is included in the Appendices to this section (see Appendix 2-2 located at the end of this section).

## 2.2.10 EQUIPMENT VENDORS

The following equipment vendors supply standby or emergency equipment.

Tri Sen Systems Inc.  
P.O. Box 578  
Lamarque, Texas 77568  
(409) 935-3555

Gould Inc.  
P.O. Box 3083  
Andover, Mass. 01810  
(800) 468-5372

Land Combustion  
2525B Pearl Buck Rd.  
Bristol PA 19007-6807  
(215) 781-0810

Corrosion Products  
5 Lombard St.  
Schenectady, NY 12304  
(518) 383-8260

Mechanical Construction  
P.O. Box 752  
Poughkeepsie, NY 12602  
(914) 452-6700

NALCO Chemical Co.  
171 State Route 173  
Asbury, NJ  
(800) 527-2068

Elliott  
Donora Industrial Park  
Scott St. Ext.  
Donora, PA 15033  
(412) 379-5440

Labour Pumps  
P.O. Box 1187  
Elkhart, Indiana 96515  
(219) 293-0653

Deltak Corp.  
SDS Box 60545  
Minneapolis MN 55486  
(612) 544-3371

## 2.2.11 EQUIPMENT CALIBRATION REPORT

See the Preventative Maintenance Work Orders in the Appendices of this section (see Appendix 2-3 located at the end of this section).

## **SECTION 2.0**

### **APPENDICES**

## **APPENDIX 2-1**

### **LIST OF CONSTRUCTION DRAWINGS**

## DRAWING RECORD

7/13/58

PROJECT		PLANNING/PROCESS EQUIP		DESIGNED BY		CHECKED BY		DATE		DATE		DATE		DATE		DATE		DATE	
PROJECT NO.		PROJECT NAME		DESIGNED BY		CHECKED BY		DATE		DATE		DATE		DATE		DATE		DATE	
74-0811		GENERAL ARRANG'T-PLAN EL 66'-6"		1234567890		PG		3/08/5		GP		8/26/5		NR		YP		NR	
		8/30/5 9/04/5 10/02/5 7/24/6 2/04/8																	
74-0812		GENERAL ARRANG'T-PLAN EL 78'-6"		1234567890		PG		3/08/5		GP		8/26/5		NR		NR		NR	
		9/04/5 10/02/5 7/31/6																	
74-0813		GENERAL ARRANG'T-PLAN EL 90'-6"		1234567890		PG		3/11/5		GP		8/26/5		NR		NR		NR	
		9/03/5 10/03/5 7/31/6																	
74-0814		GENERAL ARRGT-PLAN EL 121'-9" & 117'-6"		1234567890		PG		3/18/5		GP		8/16/5		NR		NR		NR	
		9/04/5 10/03/5 7/31/6																	
74-0815		GEN ARRGT-PLANS EL 101'-0" & 110'-8 7/8"		1234567890		PG		3/15/5		GP		8/17/5		NR		NR		NR	
		9/04/5 10/04/5 7/31/6																	
74-0816		GENERAL ARRGT-SECTION "A-A"		1234567890		PG		3/18/5		GP		7/12/5		NR		NR		NR	
		9/16/5 10/07/5 8/12/6																	
74-0817		GENERAL ARRGT-SECTION "B-B"		1234567890		PG		3/19/5		GP		7/12/5		NR		NR		NR	
		9/16/5 10/15/5 8/12/6																	
74-0818		GENERAL ARRGT-SECTION "F-F"		1234567890		PG		3/20/5		GP		8/14/5		NR		NR		NR	
		9/16/5 10/16/5 8/12/6																	
74-0820		GENERAL ARRGT-SECTION "E-E"		1234567890		PG		3/22/5		GP		7/01/5		NR		NR		NR	
		9/10/5 10/15/5 8/13/6																	
74-0821		GEN ARRGT SECTION "C-C" & "D-D"		1234567890		PG		3/23/5		GP		9/04/5		NR		NR		NR	
		9/16/5 10/07/5 9/16/6																	
74-0824		GEN ARRGT-PLAN WATER TREAT AREA		1234567890		PG		3/26/5		GP		8/16/5		NR		NR		NR	
		9/05/5 10/04/5 8/13/6																	
74-0822		GEN ARR-ASH HANDLING SYSTEM PLAN & ELEV		123		PG		3/21/5		NR		NR		NR		NR		NR	
VOID																			
74-0823		GEN ARRGT SECTION "G-G"		1234567890		PG		9/12/5		GP		9/18/5		NR		NR		NR	
		9/24/5 10/04/5 8/13/6																	
		G.A. ENLARGED PLAN-EL 66'-6"		1234567890		PG		1/17/6		GP		1/24/6		NR		NR		NR	
		3/18/6 9/16/6																	
		G.A. ENLARGED PLAN-EL 66'-6"		1234567890		PG		1/03/6		GP		1/07/6		NR		NR		NR	
		3/18/6 9/16/6																	
74-0819		GEN ARRGT SECTION "H-H"		1234567890		PR		9/09/5		GP		9/23/5		NR		NR		NR	
		9/24/5 10/16/5 8/12/6																	
11-0017		G.A. PLATE EL 78'-6"		1234567890		PG		1/11/6		GP		1/18/6		NR		NR		NR	

## SECTION

## DRAWING RECORD

190000 31 AUG 7/15/88

B-PLANNING/PROCESS EQUIP			PERCENT COMPLETED		STARTED		CHECKED		DATE APPROVAL		DATE REVIEW		DATE REVIEW	
NO.	DESCRIPTION	ISSUED	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
11-0018	B G.A. PLATF EL 78'-6 3/18/6 9/16/6 4/20/8	1234567890	PG	11/16/5	GP	11/19/5	NR	NR	NR	000H1				
11-0019	B G.A. PLATF EL 90'-6 3/18/6 9/17/6	1234567890	PG	11/16/5	GP	11/18/5	NR	NR	NR	000H1				
11-0020	B G.A. PLATF EL 90'-6 3/18/6 9/17/6	1234567890	PG	11/20/5	GP	11/25/5	NR	NR	NR	000H1				
11-0021	B G.A. PLATF EL 101'-6 3/18/6 9/17/6	1234567890	PG	11/20/5	GP	11/25/5	NR	NR	NR	000H1				
11-0022	B G.A. PLATF EL 110'-8 3/8 3/18/6 9/17/6	1234567890	PG	11/23/5	GP	11/28/5	NR	NR	NR	000H1				
11-0023	B G.A. PLATF EL 110'-8 3/8 3/18/6 9/17/6	1234567890	PG	11/21/5	GP	11/25/5	NR	NR	NR	000H1				
11-0024	B G.A. PLATF EL 115'-0" & 121'-9 3/18/6 9/17/6	1234567890	PG	11/26/5	GP	11/29/5	NR	NR	NR	000H1				
11-0025	B G.A. PLATF EL 115'-0" & 121'-9 3/18/6 9/17/6	1234567890	PG	11/26/5	GP	11/29/5	NR	NR	NR	000H1				
11-0026	B G.A. PLATF EL 117'-6 3/18/6 9/15/6	1234567890	SGN	12/26/5	GP	1/03/6	NR	NR	NR	000H1				
11-0027	B G.A. PLATF EL 84'-6 3/18/6 9/23/6	1234567890	PG	11/27/5	GP	1/04/6	NR	NR	NR	000H1				
11-0028	B G.A. WINDBOX ACCESS PLATF 3/19/6 9/25/6	1234567890	PG	1/16/5	GP	1/04/6	NR	NR	NP	000H1				
11-0029	B G.A. SECTION J-J 3/18/6 9/24/6	1234567890	PG	11/14/5	GP	1/05/6	NR	NR	NR	000A3				
11-0030	B G.A. SECTION K-K 3/18/6 9/24/6	1234567890	PG	11/15/5	GP	1/07/6	NR	NP	NR	000A3				
11-0031	B G.A. SECTION LL 3/18/6 9/24/6	1234567890	PG	1/31/6	GP	1/07/6	NR	NR	NR	000A3				
11-0032	B G.A. PLAN-WATER TREAT AREA 3/18/6 10/05/6	1234567890	PG	12/24/5	GP	1/10/6	NR	NR	NR	000A6				
11-0033	B G.A. SECT-WATER TREAT AREA 3/13/6 9/29/6	1234567890	SGN	2/04/6	PG	1/10/6	NR	NR	NR	000A6				

## 7/15/88

### LAYOUT/EQUIPMENT

П Р М А П К С

# RESOURCE RECOVERY FACILITY

6530

## DRAWING RECORD

7/15/89

### LAYOUT/EQUIPMENT

SECTION

#### B-PLANNING/PROCESS EQUIP

PROJECT  
CONSTRUCTION

DESIGNED  
BY DATE

ENGINEER  
BY DATE

EXHIBIT/APPENDIX  
PAGE NO.

REVISION  
DATE

REVISION  
DATE

REMARKS

NO.	DRAWING NO.	DESCRIPTION	PROJECT	DESIGNED	ENGINEER	EXHIBIT/APPENDIX	REVISION	DATE
2	11-0032	B GENERAL ARRANGEMENT PLAN-SKETCH 10/16/6	1234567890	PG	9/15/6	GP	4/27/7	NR NR NR
3	11-0033	B GEN ARRANGEMENT LONGITUDINAL SECT-SKETCH 10/16/6	1234567890	PG	9/18/6	GP	9/29/6	NR NR NR
4	11-0034	B GEN ARRGT-REFUSE PIT WALL OPENING DOOR	1234567890	LDB	6/15/7			NR NR NR
5	11-0035	B GEN ARRGT-MAGNETIC SEPARATOR	123456	PG	8/17/6			NR NR NR
6	11-0036	B PROCESS BUILDING-AIR HEATER BY-PASS DUCT	1234567890	LR	6/11/7			NR NR NR
7	11-0037	B PROCESS BLDG G.A. OFFICE B EL. 105'-6" 10/30/7 11/24/7 12/04/7	1234567890	PG	9/12/7	GP	10/29/7	NR NR NR
8	11-0038	B G.A. TURBINE/GEN PIT COVER 8/06/7 11/23/7 12/28/7	1234567890	PG	7/27/7	GP	8/05/7	NR NR NR
9	11-0039	B G.A. BAGHOUSE CONV SVC PLATF 9/07/7 10/19/7 11/23/7	1234567890	PG	8/04/7	GP	8/23/7	NR NR NR
0	11-0060	B G.A. BAGHOUSE CONV SVC PLATF 9/08/7 11/23/7	1234567890	PG	9/01/7	GP	9/02/7	NR NR NR
1	11-0061	B G.A. BAGHOUSE CONV SVC PLATF 9/08/7 10/19/7 11/23/7	1234567890	PG	9/01/7	GP	9/02/7	NR NR NR
2	11-0062	B G.A. GEN AIR DISCH DUCT 7/02/7 9/08/7 9/17/7	1234567890	LB	9/02/7	VB		NR NR NR
3	11-0063	B G.A. ARRGT PULPIT CAGE	1234567890	LB		VB		NR NR NR
4	11-0064	B PROCESS BLDG ASH LOADOUT PL & SECTS	1234567890	LB	12/13/7			
5	11-0065	B HOUSE AREA BYPASS DUCT BUTTERFLY VALVE 1/28/8	1234567890	LB	12/15/7	BL	1/29/8	
6	11-0066	B ASH LOADOUT FLR PLATES+SIDEWALK BARRIERS	1234567890	PG	1/07/8			
7	11-0067	B PROCESS BLDG ASH LOADOUT ONE POT LOADOU						

## 7195/58

### LAYOUT/EQUIPMENT

DRAWINGS LISTED 68



## SECTION

F-FOUNDATIONS

SECTION CODE	P-FOUNDATIONS		PROJECT NO.		STARTED		CHECKED		DATE APPROVED		REVISIONS		ACTIVITY	
	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
	DIVISION DATES		REVISION HOURS											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
F	KEY LOCATION PLAN & NOTES 11/08/5 11/26/5 2/12/6 7/31/6 9/11/6				1234567890	SGN	8/28/5	SCW	10/28/5	NR	NR	10/04	810C1 NRNR	
F	BUILDING & EQUIP FDTNG-KEY PLAN 11/08/5 11/24/5 12/13/5 1/13/6				1234567890	DEH	8/28/5	SCW	10/28/5	NR	NR	10/04	810C3 NRNR	
F	EXCAVATION PLAN-PROCESS PITS 9/10/5 11/14/5				1234567890	DEH	8/28/5	SGN	9/10/5	NR	NR	NR	815F1 NRNR	
F	TEST BORINGS-PLAN 10/04/5				1234567890	SGN	7/29/5	NR	NR	NR	NR	NR	024F1 NRNR	
F	REFUSE PIT-PLAN AT EL 78'-0 11/08/5				1234567890	DEH	9/10/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT-HAT KEYWAY & DWL PLAN 11/08/5				1234567890	DEH	9/05/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	WASTE WATER SUMP-PLAN 11/08/5				1234567890	DEH	9/02/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT-SECTIONS AND DETAILS 11/08/5				1234567890	DEH	9/12/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT-SECTIONS 11/08/5				1234567890	DEH	9/13/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT-WALL ELEVATIONS 11/08/5				1234567890	DEH	9/16/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	WASTE WATER SUMP-SECTIONS 11/08/5 11/23/5				1234567890	DEH	9/17/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE RECEIVING CHUTE-PLAN & SECT 11/08/5				1234567890	DEH	9/18/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT-MISC FOUNDATION DETAILS 11/08/5 1/13/6				1234567890	DEH	9/19/5	SCW	10/29/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT WALLS ABOVE EL 79'-0-PLAN 11/08/5 11/26/5 12/13/5				1234567890	DEH	9/24/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	REFUSE PIT WALLS ABOVE EL 79'-0 SECTIONS 11/08/5 12/13/5 3/10/6				1234567890	DEH	9/24/5	SCW	10/28/5	NR	NR	10/04	810C5 NRNR	
F	ANCHOR BOLT DETAILS 11/08/5 12/13/5 3/13/6 4/23/6 5/27/6 6/19/6 7/13/6				1234567890	DEH	9/05/5	SCW	10/28/5	NR	NR	10/04	810L8 NRNR	

## DRAWING RECORD

PURCHASE ORDER 7/15/88

SECTION

## FOUNDATIONS

NO	SECTION	F-FOUNDATIONS	PERCENT COMPLETED	STARTED BY DATE	CHECKED BY DATE	FOR APPROVAL POWERED BY DATE	RECEIVED FOR APPROVAL DATE	DATE	ACTIVITY NEW SPEC NO	REVISION IN VIEW	REMARKS
17		F RETAINING WALL AT COL ROW B.2/ 10 5 11/08/5 1/07/6	1234567890	SGN 9/28/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
18		F RETAINING WALL AT COL ROW D/5 10 6 11/08/5	1234567890	SGN 9/28/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
19		F RETAINING WALL AT COL ROW B.2 10 C/1 11/08/5 11/23/5 12/13/5 1/13/6	1234567890	SGN 9/28/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
20		F BLDG COL PIER & GRADE WALL DETAILS 11/08/5	1234567890	SGN 9/18/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
21		F BLDG COL PIER, GRADE WALLS & 6 AM DETAIL 11/08/5 2/03/6	1234567890	SGN 9/18/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
22		F BLDG COL PIER DETAILS 11/08/5 11/23/5	1234567890	SGN 9/19/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
23		F BLDG COL PIER DETAILS & P.W SECTIONS 11/08/5 11/26/5 12/13/5	1234567890	SGN 10/01/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
24		F BLDG COL PIER DETAILS 11/08/5 11/23/5	1234567890	SGN 10/01/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
25		F BLDG COL PIER DETAILS 11/08/5 11/23/5 12/13/5	1234567890	SGN 10/02/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
26		F GRADE WALL & GRADE BEAM DETAIL 11/08/5 11/26/5 2/10/6	1234567890	SGN 10/02/5	DEH 10/28/5	NR	NR	10/04	810C3 NRNR		
27		F MISC COL PIER DETAILS 12/13/5	1234567890	DEH 11/14/5	DEH 12/13/5	NR	NR	NR	810F1 NRNR		DWG #'S TO BE RE-USED HRS REMAIN
28		F ACID/CAUSTIC STORAGE AREA-PLAN & SECT 1/13/6	1234567890	DEH 10/31/5	SGN 1/13/6	NR	NR	NR	810F8 NRNR		DWG #'S TO BE RE-USED HRS REMAIN
29		F TURBINE/GENERATOR FOUNDATION PLAN 12/13/5 1/07/6 4/07/6	1234567890	DEH 10/03/5	SN 12/13/5	NR	NR	NR	810F3 NRNR		DWG #'S TO BE RE-USED HRS REMAIN
30		F TURBINE/GENERATOR FOUNDATION SECTIONS 12/13/5	1234567890	DEH 10/03/5	SN 12/13/5	NR	NR	NR	810F3 NRNR		DWG #'S TO BE RE-USED HRS REMAIN
31		F COMB NO 1-ASH DRAG CONV PIT-PLAN 12/23/5	1234567890	DEH 11/04/5	SN 12/23/5	NR	NR	NR	810F7 NRNR		DWG #'S TO BE RE-USED HRS REMAIN
32		F COMB NO 2-ASH DRAG CONV PIT-PLAN 12/23/5	1234567890	DEH 11/11/5	SN 12/23/5	NR	NR	NR	810F7 NRNR		DWG #'S TO BE RE-USED HRS REMAIN





CONFIDENTIAL

부동산 가격 상승, 2000년 1월

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# RESOURCE RECOVERY FACILITY

6539

6539

## STRUCTURAL

## DRAWING RECORD

7/15/85

7/15/85

### S-STRUCTURAL

REVISION  
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STAIR TOWER

COND EQUIP BLDG + REACTION TK PLAT

PIPE SUPPORTS  
1/10/6

MISC PLATFORMS  
8/19/6

8/26/6

MISC PLATFORMS  
8/19/6

9/26/6

MISC PLATFORMS  
8/19/6

10/08/6

MISC PLATFORMS  
8/19/6

10/08/6

DUCTWORK-COMB AIR DUCT-PLAN  
9/17/6

DUCTWORK-DETAILS  
9/17/6

DUCTWORK-PLENUM-PLAN & SECTION I  
9/17/6

DUCTWORK 60" & INLET DUCTS  
9/17/6

DUCTWORK-A.M. INLET DUCT PLAN  
9/17/6

11/19/6

DUCTWORK-ECON DISCHARGE DUCT  
9/17/6

DUCTWORK-DETAILS  
9/17/6

DUCTWORK-FAN INLET DUCTS  
9/17/6

DUCTWORK-FAN OUTLET & G NOTES  
9/17/6

1234567890 CAD 12/18/75 SCW 1/03/76

1234567890 CAD 1/07/76 SCW 1/09/76

1234567890 CAD 1/03/76 SCW 1/08/76

1234567890 CAD 4/15/76 HEC 4/30/76

1234567890 CAD 4/30/76 TM NR

1234567890 JLB 5/14/76 TM 7/07/76

1234567890 JLB 5/15/76 TM 7/07/76

1234567890 JLB 6/06/76 JOC 7/07/76

1234567890 JLB 6/12/76 JOC 7/24/76

1234567890 JLB 6/10/76 JOC 7/24/76

1234567890 JLB 6/12/76 JOC 7/24/76

1234567890 JLB 6/11/76 JOC NR

1234567890 JLB 6/16/76 SW 7/23/76

1234567890 JLB 6/16/76 SW 7/23/76

1234567890 JLB 6/17/76 SW 7/23/76

1234567890 JLB 6/17/76 SW 7/23/76

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REMARKS

7/15/88

### S-STRUCTURAL

DRAWINGS LISTED 46



DRAWING RECORD

7/15/89

ARCHITECTURAL

A-ARCHITECTURAL

REMARKS

A-ARCHITECTURAL													
PERCENT		STARTED		COMPLETED		REVISIONS		REVISION DATES		REVISION HOURS		ACTIVITY	
NO.	DATE	BY	DATE	BY	DATE	NO.	DATE	BY	DATE	NO.	DATE	NO.	DATE
REVISIONS													
REVISION HOURS													
0	A	CLEARING & GRADING PLAN	4/25/5	1234537890	DB	3/01/5	DB	3/10/5	NR	NR	3/07	013A1	NRNR
1	A	SURVEY PROCUREMENT PLAN	3/14/5	1234567890	DB	3/01/5	DB	3/10/5	NR	NR	3/07	008A1	NRNR
2	VOID	A SITE EARTHWORK PLAN	NR	123456789	TG	4/17/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
3	A	A SITE EARTHWORK PLAN & DRAINAGE DETAILS	8/20/5 11/26/5 11/03/7	1234567890	DB	4/17/5	NR	NR	8/16	NR	3/07	815RR	NRNR
4	VOID	A SITE EARTHWORK PROFILES	NR	123456789	TG	4/19/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
5	VOID	A SITE EARTHWORK PROFILES	NR	123456789	TG	4/22/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
6	VOID	A SITE EARTHWORK PROFILES	NR	123456789	DB	4/22/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
7	VOID	A SITE EARTHWORK PROFILES	NR	123456789	DB	4/19/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
8	VOID	A SITE EARTHWORK PROFILES	NR	123456789	DB	5/02/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
9	VOID	A SITE ROAD LAYOUT/PAVING PLAN	NR	123456789	TG	4/29/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
0	VOID	A SITE UNDERGROUND STORM DRAINAGE	NR	123456789	TG	5/02/5	NR	NR	5/14	5/17	5/07	815RR	NRNR
1	VOID	A SITE PLAN DETAILS	NR	123	TG	7/01/5	NR	NR	NR	NR	NR	815RR	NRNR
2	VOID	A SITE PLAN DETAILS	NR	123	TG	7/01/5	NR	NR	NR	NR	NR	815RR	NRNR
3	A	A SITE EARTHWORK PLAN	8/20/5 11/14/5 11/26/5 9/28/7	1234567890	DB	7/24/5	TG	8/16/5	8/16	NR	8/07	815RR	NRNR
4	A	A SITE EARTHWORK PROFILES	8/20/5	1234567890	GA	7/29/5	TG	8/16/5	NR	NR	8/07	815RR	NRNR
5	A	A SITE EARTHWORK PROFILES	8/20/5	1234567890	TG	7/26/5	TG	8/16/5	NR	NR	8/07	815RR	NRNR
6	A	A SITE EARTHWORK PROFILES	NR	1234567890	TG	7/26/5	TG	8/16/5	NR	NR	8/07	815RR	NRNR



## RESOURCE RECOVERY FACILITY

CENTRAL FILE 6559

## DRAWING RECORD

PROJECT RELEASED 7/15/88

SECTION

## ARCHITECTURAL

## A-ARCHITECTURAL

PROJECT INFORMATION		STARTED		COMPLETED		DATE APPROVED		DATE	ACTIVITY	REVISION
PROJECT NO.	DESCRIPTION	BY	DATE	BY	DATE	PROJECT	FILE			
REVISION DATA										
1	2	3	4	5	6	7	8	9	10	11
REVISION HOURS										

REMARKS

NO.	DESCRIPTION	PROJECT NO.	DESCRIPTION	BY	DATE	COMPLETED	DATE APPROVED	DATE	ACTIVITY	REVISION
4	A ADMIN BLDG ELEVATIONS 9/02/6 11/04/6	1234567890	RR	2/07/6	DB	9/02/6	NR	NR	6/03	866G1 NRNR
5	A ADMIN BLDG SECTIONS & DET 9/02/6	1234567890	RR	2/10/6	DB	9/02/6	NR	NR	6/03	866G1 NRNR
6	A ADMIN REFLECTED CLO PLAN 9/02/6	1234567890	RR	2/20/6	DB	9/02/6	NR	NR	6/03	866G1 NRNR
0	A BATHHOUSE CONTROL BLDG 6/06/6	1234567890	RR	6/03/6	DB	6/06/6	NR	NR	7/22	867X1 NRNR
1	A CONDENSER EQUIP BLDG 6/12/6	1234567890	GA	12/15/5	DB	6/12/6	NR	NR	1/22	839A2 NRNR
0	A PROCESS BLDG KEY PLANS & LOUVER SCHED 6/12/6	1234567890	TO	7/16/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
1	A PROCESS BLDG EAST ELEVATION 6/12/6 8/15/6	1234567890	TO	7/17/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
2	A PROCESS BUILDING SOUTH ELEVATION 6/12/6 8/15/6	1234567890	TO	7/17/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
3	A PROCESS BUILDING WEST ELEVATION 6/12/6 8/15/6	1234567890	TO	7/17/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
4	A PROCESS BUILDING NORTH ELEVATION 6/12/5 8/15/6	1234567890	TO	7/17/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
5	A PROCESS BUILDING SHEETING DETAILS 6/12/6	1234567890	TO	8/29/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
6	A PROCESS BUILDING SHEETING DETAILS 5/02/6 6/12/6 7/23/6 8/04/6	1234567890	TO	9/09/5	DB	5/02/6	NR	NR	1/22	839A1 NRNR
7	A PROCESS BUILDING SHEETING DETAILS 6/12/6 7/23/6 8/04/6	1234567890	GA	9/12/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
8	A PROCESS BUILDING SHEETING DETAILS 5/02/6 6/12/6	1234567890	GA	9/14/5	DB	5/02/6	NR	NR	1/22	839A1 NRNR
9	A PROCESS BUILDING SHEETING DETAILS 6/12/6	1234567890	GA	9/24/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
1	A PROCESS BUILDING SHEETING DETAILS 5/02/6 6/12/6	1234567890	GA	10/11/5	DB	5/02/6	NR	NR	1/22	839A1 NRNR

20 SECTION

ARCHITECTURAL

DRAWING SCALE

7/15/88

NO.	SECTION	A-ARCHITECTURAL	REVISION	BY	DATE	CHECKED	DATE	APPROVED	DATE	ACTIVITY	REMARKS
167	A	ROOF STORM LEADER SECTIONS 6/12/6	1234567890	RB	11/18/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
168	A	PROCESS BUILDING ROOF PLAN 6/12/6 8/19/6	1234567890	TG	9/13/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
169	A	ROOF PARAPET & CURB DETAILS 5/02/6 6/12/6	1234567890	RB	10/23/5	DR	5/02/6	NR	NR	1/22	839A1 NRNR
170	A	ROOF DETAILS 6/12/6 8/19/6	1234567890	TG	11/20/5	DB	6/12/6	NR	NR	1/22	839A1 NRNR
173	A	FINISH SCHEDULE & DOOR DETAILS 5/02/6 1/27/7	1234567890	RB	11/13/5	DB	5/02/6	NR	NR	1/22	867F1 NRNR
174	A	DOOR & WINDOW SCHEDULE 4/23/6 5/12/6 6/12/6 1/27/7	1234567890	RB	11/13/5	DB	4/23/6	NR	NR	12/20	867F1 NRNR
175	A	MASONRY AREA PLAN AT EL 66'-6" 5/02/6 5/12/6 6/03/6	1234567890	RB	8/20/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
176	A	MASONRY AREA PLAN AT EL 78'-6" 5/02/6 6/03/6 7/23/6 8/05/6	1234567890	RB	8/20/5		5/02/6	NR	NR	12/20	867C1 NRNR
177	A	MASONRY AREA PLAN AT EL 90'-6" 5/02/6 7/23/6 8/05/6	1234567890	RB	9/05/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
178	A	MASONRY AREA PLANS AT EL 105'-6" & 117'-6" 5/02/6 6/24/6 7/23/6 8/05/6	1234567890	RB	9/25/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
179	A	MASONRY AREA CROSS SECTION 5/02/6 5/19/6	1234567890	RB	10/01/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
180	A	INTERIOR MASONRY ELEVATION 5/02/6 6/24/6	1234567890	RB	10/11/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
181	A	MASONRY AREA CROSS SECTIONS 5/02/6	1234567890	RB	9/30/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
182	A	STAIR TOWER SECTIONS & DETAILS 5/02/6 7/23/6 8/05/6	1234567890	RB	8/09/5	DB	5/02/6	NR	NR	12/20	867C9 NRNR
184	A	MASONRY DETAILS 5/02/6 5/19/6	1234567890	RB	7/23/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR
185	A	REFLECTED CEILING PLANS 5/02/6	1234567890	RB	10/03/5	DB	5/02/6	NR	NR	12/20	867C1 NRNR

# DRAWING RECORD

7/15/88

SECTION

ARCHITECTURAL

NO	SECTION	A-ARCHITECTURAL	REVISION NO	REVISION DATE	BY	DATE	CHECKED	DATE	APPROVED	DATE	REVIEW	REMARKS
89	A	FIREPROOFING-MISC. FRAMING 12/08/6 5/13/7	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
90	A	FIREPROOFING-CHG FLR 8 EL 121-2 12/08/6 12/08/6 1/05/7	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
91	A	FIREPROOFING-PLAN EL 78-6, 84-6, 90-6 12/08/6 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
92	A	FIREPROOFING-PLANS AT STAIR NO 2 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
93	A	FIREPROOFING-PLANS & ELEVATIONS 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
94	A	FIREPROOFING-FRAMING ELEVATIONS 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
95	A	FIREPROOFING-FRAMING ELEVATIONS 12/08/6 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
96	A	FIREPROOFING-FRAMING ELEVATIONS 12/08/6 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
97	A	FIREPROOFING-FRAMING ELEVATIONS 12/08/6	1234567890	TG	5/14/6	DB	12/06/6	NR	NR	7/11	020A1 NRNR	
98	A	FIREPROOFING-COLUMN SCHED 1/05/7	1234567890	RB	1/02/7	DB	1/03/6	NR	NR	NR	020A1 NRNR	
00	LAYOUT	A SITE EARTHWORK EXIST PROFILES NR	1234567	TG	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	
01	LAYOUT	A SITE EARTHWORK EXIST PROFILES NR	1234567	TG	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	
02	LAYOUT	A SITE EARTHWORK EXIST PROFILES NR	1234567	TG	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	
03	LAYOUT	A SITE EARTHWORK EXIST PROFILES NR	1234567	TG	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	
04	LAYOUT	A SITE EARTHWORK EXIST PROFILES NR	1234567	TG	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	
05	LAYOUT	A SITE EARTHWORK PROFILES STUDY NR	1234567	DB	4/10/5	NR	NR	NR	NR	NR	815RR NRNR	

# DRAWING RECORD

DATE ISSUED 7/15/89

## ARCHITECTURAL

CLIENT PROJECT NO.	SECTION CODE	TITLE		PERCENT COMPLETED	STARTED		CHECKED		DATE APPROVED		ISSUED	ACTIVITY NO. REV. NO.	REMARKS
		MODEL NO.	INSTRUMENT IN CHARGE DATE		BY	DATE	BY	DATE	DATE	DATE			
REVISION DATES										ACTIVITY NO. REV. NO.	REMARKS		
REVISION HOURS													
7	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/10/5	NR	NR	NR	NR	815RR	
8	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/10/5	NR	NR	NR	NR	815RR	
9	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/10/5	NR	NR	NR	NR	815RR	
0	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/10/5	NR	NR	NR	NR	815RR	
1	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/10/5	NR	NR	NR	NR	815RR	
2	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/10/5	NR	NR	NR	NR	815RR	
3	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/10/5	NR	NR	NR	NR	815RR	
4	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/10/5	NR	NR	NR	NR	815RR	
5	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/12/5	NR	NR	NR	NR	815RR	
6	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/12/5	NR	NR	NR	NR	815RR	
7	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/12/5	NR	NR	NR	NR	815RR	
8	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/12/5	NR	NR	NR	NR	815RR	
9	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	TG	4/12/5	NR	NR	NR	NR	815RR	
0	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/12/5	NR	NR	NR	NR	815RR	
1	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/12/5	NR	NR	NR	NR	815RR	
2	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/12/5	NR	NR	NR	NR	815RR	
3	LAYOUT	A	SITE EARTHWORK PROFILES STUDY A	NR	1234567	DB	4/12/5	NR	NR	NR	NR	815RR	

# DRAWING RECORD

[illegible]

7/15/84

ARCHITECTURAL

**A-ARCHITECTURAL**

[illegible]





RESOURCE RECOVERY FACILITY

(initial: 1 N)

6539

## DRAWING RECORD

THESE ARE THE

7/15/88

22 SECTION

POWER &amp; FUEL

LINE NO	ELEMENT SYMBOL	SECTION CODE	P-POWER & FUEL (PIPING)										PERCENT		STARTED		FINISHED		EQUIPMENT		MATERIAL		ACTIVITY		REMARKS	
			MODEL NO	INSTRUMENTS IN CHARGE COMPLETION DATE	SIZED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		20
119	P	PROC BLD PIP-PL EL 66'-6 COL 2-D & 3-4	1234567890	SFP	7/09/5	DL	9/16/6	NR	NP	5/16	703P1	7R9														
120	P	PROC BLD PIP-PL EL 66'-6 COL 2 - TRENCH	1234567890	SFP	7/09/5	DL	9/19/6	NR	NR	5/16	703P1	7R9														
121	P	PROC BLD PIP-SECT AA, SHT 1 O 5	1234567890	SP	10/04/5	DL	9/22/6	NR	NR	5/16	703P1	7R9														
122	P																									
123	P	PROC BLD PIP-SECT AA, SHT 2 O 5	1234567890	SP	10/04/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														
124	P	PROC BLD PIP-SECT AA, SHT 3 T 5	1234567890	SP	10/04/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														
125	P																									
126	P	PROC BLD PIP-SECT AA, SHT 4 O 5	1234567890	SP	10/04/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														
127	P	PROC BLD PIP-SECT AA, SHT 5 O 5	1234567890	SP	10/11/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														
128	P	PROC BLD PIP-SECT AB, SHT 1 O 4	1234567890	DK	10/10/5	DL	9/17/6	NR	NR	5/16	703P1	7R9														
129	P	SPECIALTY ITEMS-STRAINERS, RU DISCS & 1																								
130	P	DWG INDEX-SHT 1 OF 2	1234567890	LK	6/25/6	NR	NR	NR	NR	NR	703X3															
131	P	DWG INDEX-SHT 2 OF 2	1234567890	LK	6/25/6	NR	NR	NR	NR	NR	703X3															
133	P	SPECIALTY ITEMS-STEAM TRAPS	1234567890	TS	6/03/6	NR	NR	NR	NR	NR	703Z4															
134	P	PROC BLD PIP-PL EL 78'-6 COL -F & 2-3	1234567890	SFP	7/10/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														
135	P	PROC BLD PIP-PL EL 78'-6 COL -F & 3-4	1234567890	SFP	7/10/5	DL	9/17/6	NR	NR	5/16	703P1	NR9														

## POWER &amp; FUEL

## DRAWING RECORD

[illegible]

## DRAWING RECORD

PURCHASE SLIP OF 7/15/58

LINE NO	SECTION CODE	P-POWER & FUEL (PIPING)		REVISION DATES		REVISION HOURS		ACTIVITY NO.		SHEET NO.		REMARKS
		WORK NO	ISSUED	DATE	BY	DATE	BY	DATE	HOURS	HOURS		
156	P	PROC BLDG PIPING-PLAN EL 90'-6" B2-D, 2-3 1234567890 BM 8/15/6 9/08/6 9/23/6 10/14/6 11/21/6		8/14/5 DL	9/23/6	NR	NR	5/16	703P1 NR9			
157	P	PROC BLDG PIPING-PLAN EL 90'-6" B2-D, 3-4 1234567890 BM 8/15/6 9/08/6 9/23/6 10/14/6 11/06/6		8/14/5 DL	9/23/6	NR	NR	5/16	703P1 NR9			
158	P	PROC BLDG PIPING-PLAN EL 90'-6" D-F, 2-3 1234567890 BM 7/17/6 8/15/6 9/08/6 9/24/6 1/22/7		8/15/5 DL	9/24/6	NR	NR	5/16	703P1 NR9			
159	P	PROC BLDG PIPING-PLAN EL 90'-6" D-F, 3-4 1234567890 BM 7/17/6 8/15/6 9/08/6 9/24/6 1/23/7		8/15/5 DL	9/24/6	NR	NR	5/16	703P1 NR9			
160	P	PROC BLDG-PLAN & SECT COL P TO E & 4 TO 9 1234567890 BM 7/17/6 9/24/6		3/17/6 JRL	6/20/6	NR	NR	5/16	703P1 NR9			
161	P	PROC BLD PIP-PL EL 90'-6" COL F-G & 3-3 1234567890 DK 7/17/6 9/25/6 12/19/6		1/14/6 DL	9/25/6	NR	NR	5/16	703P1 NR9			
162	P	PROC BLD PIP-SECT AF, SHT 1 OF 4 1234567890 SP 7/17/6 8/15/6 9/25/6 12/12/6 1/21/7		10/28/5 DL	9/25/6	NR	NR	5/16	703P1 NR9			
163	P	PROC BLD PIP-SECT AF, SHT 2 OF 4						5/16				
164	P	PROC BLD PIP-SECT AF, SHT 3 OF 4 1234567890 SP 7/17/6 9/29/6 12/12/6 1/22/7		10/21/5 DL	9/29/6	NR	NR	5/16	703P1 NR9			
165	P	PROC BLDG PIP-SECT AF, SHT 4 OF 4 1		SP	10/21/5			5/16				
166	P	PROC BLD PIP PL EL 121'-9 COL D-P&J-4 1234567890 DJK 7/17/6 8/15/6 8/29/6 9/08/6 9/12/6 9/26/6 1/23/7		9/18/5 DL	9/18/6	NR	NR	5/16	703P1 NR9			
167	P	PROC BLD PIP PL EL 121'-9 COL D-P&J-3 1234567890 DJK 7/17/6 8/15/6 8/29/6 9/08/6 9/12/6 9/26/6		9/17/5 DL	9/26/6	NP	NR	5/16	703P1 NR9			
168	P	PROC BLD PIP PL EL 117'-6 COL I2 TO D&J-3 1234567890 SFP 7/17/6 4/08/6 9/08/6 9/12/6 9/29/6 12/12/6		9/10/5 DL	9/29/6	NR	NR	5/16	703P1 NR9			
169	P	PROC BLD PIP PL EL 117'-6 COL I2-D&J-3 1234567890 SFP 7/17/6 9/26/6 1/21/7		9/10/5 DL	9/26/6	NR	NR	5/16	703P1 NR9			
170	P	PROC BLD PIP-SECT AG, SHT 1 OF 3 1234567890 SP 7/17/6 8/15/6 9/08/6 10/07/6 11/06/6 1/21/7		10/28/5 DL	10/07/6	NR	NP	5/16	703P1 NR9			

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22 SECHIN

FORES &amp; FUEL

## DRAWING RECORD

1. INTRODUCTION

6530

THE KING'S COLLEGE

7115105

DATE	CLIENT	SECTION	P-POWER & FUEL (PIPING)		PERCENT		STARTED		CHECKED		REVISION DATES		REVISION HOURS		ACTIVITY	REMARKS					
			MATERIAL NO	DESCRIPTION	ISSUED	BY	DATE	BY	DATE	1	2	3	4	5			6	7	8	9	10
1072	VOID	P	PROC BLD PIP-SECT AG, SHT 3 OF 3	7/17/6	9/08/6	9/29/6	10/08/6	1234567890	SP	10/28/5	DL	9/29/6	NR	NR	5/16	703P1	NR9				
1073		P	PROC BLD PIP-SECT AB, SHT 2 OF 4					1		8/11/5						5/16					
1074		P	PROC BLD PIP-SECT AB, SHT 3 OF 4	7/17/6	8/15/6	9/08/6	10/01/6	12/12/6	1234567890	DK	10/09/5	DL	10/01/6	NR	NR	5/16	703P1	NR9			
1075		P	PROC BLD PIP PL EL 110'-8 7/8 COL E-P82-	7/17/6	8/15/6	9/08/6	9/30/6	11/21/6	1234567890	DJR	9/19/5	DL	9/30/6	NR	NR	5/16	703P1	NR9			
1076		P														5/16					
1077		P	PROC BLD PIP PL EL 110'-8 7/8 COL E-P83-	7/17/6	9/08/6	9/08/6	9/22/6	9/30/6	11/06/6	12/12/6	1234567890	DK	9/13/5	DL	9/30/6	NR	NR	5/16	703P1	NR9	
1078		P	PROC BLD PIP PL EL 110'-8 7/8 COL C-E82-	7/17/6	8/15/6	10/02/6	11/06/6	1/21/7	1234567890	DK	9/12/5	DL	10/02/6	NR	NR	5/16	703P1	NR9			
1079		P	PROC BLD PIP-SECT AH, SHT 1 OF 1	7/17/6	8/15/6	10/01/6	10/08/6		1234567890	DK	10/01/5	DL	10/01/6	NR	NR	5/16	703P1	NR9			
1080		P	PROC BLD PIP-PLAN EL 101 COL 1-F & 3-4	7/17/6	8/15/6	9/08/6	9/29/6	1/22/7	1234567890	DJK	9/20/5	DL	9/29/6	NR	NR	5/16	703P1	NR9			
1081		P	PROC BLD PIP-PL EL 91'-6-COLS C-E & 2-3	7/17/6	9/22/6				1234567890	DK	9/30/5	DL	9/22/6	NR	NR	5/16	703P1	NR9			
1082	P	PROC BLDG PIP PL EL 101-0 COL D-E83-4	7/17/6	8/15/6	10/01/6	11/06/6		1234567890	DK	9/11/5	DL	10/01/6	NR	NR	5/16	703P1	NR9				
1083	P	PROCESS PIPING AT FORCED CIRC PUMPS	10/06/6	10/21/6				1234567890	JL	9/25/6	DL	10/06/6	NR	NR							
1084	P														5/16						
1085	P	CONDENSER AREA PIPING-PLAN SHT 1 OF 2	7/17/6	8/29/6	9/22/6	1/22/7		1234567890	BM	8/12/5	DL	9/22/6	NR	NR	5/16	703P3	NR9				
1086	P	CONDENSER AREA PIPING-LOWER PLAN	7/17/6	8/22/6				1234567890	BM	8/23/5	DL	9/22/6	NR	NR	5/16	703P3	NR9				
1087	P	CONDENSER AREA PIPING-SECTION:	7/17/6	9/30/6				1234567890	BM	8/13/5	DL	9/30/6	NR	NR	5/16	703P3	NR9				



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UNKNOWN BASIS OF

7/13/98

POWER &amp; FUEL

SECTION

ELEMENT NUMBER	DESCRIPTION	P-POWER & FUEL (PIPING)										REVISIONS										ACTIVITY NO. DATE BY VIEW	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		MODEL NO.	INSTALLATION DATE	EXPIRATION DATE	JMS ESTIMATE	ISSUED	DESIGNED BY		CHECKED BY		EVALUATED BY		RELEASED BY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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74-0882	P HVAC SYSTEM, SHT 4 OF 6 8/15/6	1234567890	AN	6/20/5	HJA	11/22/5	NR	NR	5/21	703H1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</

**CONCLUSIONS**

# DRAWING RECORD

1503 2001

**i n t e r f a c e    i n p u t**

6539

**INTERVIEW SUBJECTS**

7/13/58

[illegible]

### REMARKS

1994年12月15日

AUGUST 1964



23 11 1994

# DRAWING RECORD

\* 00111A \* 1911 6530

7/15/88

[illegible]



## INSTRUMENTATION

## DRAWING RECORD

EQUIPMENT NUMBER

7/15/88

REV. NO.	I-INSTRUMENTATION				PERCENT		STARTED		CHECKED		FOR APPROVAL		ISSUED	ACTIVITY	REMARKS	
	MODEL NO.	DESCRIPTION	ISSUED	DATE	BY	DATE	BY	DATE	BY	DATE						
REVISION DATES																
REVISION HOURS																
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	7/28/7		1234567890	DN	10/24/5	DN	1/14/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	6/27/6	1/20/7	9/28/7		1234567890	DN	10/24/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	4/25/6					1234567890	DN	10/24/5	DN	1/14/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6					1234567890	DN	10/24/5	DN	1/16/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7			1234567890	DN	10/24/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	10/05/7		1234567890	DN	10/24/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	4/25/6	1/20/7				1234567890	DN	10/25/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	6/27/6	1/20/7	10/05/7		1234567890	DN	10/25/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	10/05/7		1234567890	DN	10/25/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	10/05/7		1234567890	DN	10/25/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC I/O WIRING	3/03/6	7/10/6	10/05/7			1234567890	DN	10/25/5	DN	1/09/6	NR	NR	1/24	502W1	
															NRNR	
1	PLC TERMINAL BLOCKS	3/03/6	10/05/7				1234567890	DN	11/06/5	DN	1/14/6	NR	NR	1/24	502W2	
															NRNR	
1	PLC TERMINAL BLOCKS	3/03/6	1/20/7				1234567890	DN	11/06/5	DN	1/09/6	NR	NR	1/24	502W2	
															NRNR	
1	PLC TERMINAL BLOCKS	4/25/6	10/05/7				1234567890	DN	11/06/5	DN	1/14/6	NR	NR	1/24	502W2	
															NRNR	
1	PLC TERMINAL BLOCKS	3/03/6	1/20/7				1234567890	DN	11/07/5	DN	1/09/6	NR	NR	1/24	502W2	
															NRNR	
1	PLC TERMINAL BLOCKS	3/03/6	7/10/6	1/20/7	10/05/7		1234567890	DN	11/07/5	DN	1/09/6	NR	NR	1/24	502W2	
															NRNR	

# DRAWING RECORD

DATE: 7/15/88

J-INSTRUMENTATION										PROJECT	STARTED	COMPLETED	REVISION	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
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## R E M A R K S

# DRAWING RECORD

7/15/88

I-INSTRUMENTATION				PERCENT COMPLETED		STARTED		COMPLETED		TERMINAL		REVISION DATES		REVISION HOURS		ACTIVITY	
MINI NO	DESCRIPTION	DATE	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
I	LOOP WIRING/PC #2 STEAM FLOW	3/03/6	1/20/7	9/25/7	1234567890	DN	10/10/5	DN	12/11/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC #2 BOILER DRUM LEVEL	4/25/6	1/20/7	9/25/7	1234567890	DN	10/10/5	DN	1/09/6	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#1 CHART RECORDER	4/25/6	9/25/7		1234567890	DN	10/13/5	DN	12/18/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#1 CHART RECORDER	3/03/6	7/28/6	1/20/7	1234567890	DN	10/18/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#1 CHART RECORDER	3/03/6	1/20/7	9/25/7	1234567890	DN	10/18/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/COMBUSTION AIR FLOW	3/03/6	7/10/6	1/20/7	1234567890	DN	10/18/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#2 CHART RECORDER	4/25/6	1/20/7	9/25/7	1234567890	DN	10/18/5	DN	12/17/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#2 CHART RECORDER	4/25/6	1/20/7		1234567890	DN	10/18/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#2 CHART RECORDER	4/25/6	1/20/7	9/25/7	1234567890	DN	10/18/5	DN	1/08/6	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC#2 COMB AIR	3/03/6	7/10/6	1/20/7	1234567890	DN	10/18/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC #1 OPACITY	4/25/6	1/20/7		1234567890	DN	11/26/5	DN	12/10/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC #2 OPACITY	4/25/6	1/20/7		1234567890	DN	11/26/5	DN	12/11/5	NR	NR	1/24	502V3	NRNR			
I	LOOP WIRING/RC #1 ANNUNCIATOR	3/03/6	7/28/6	10/24/6	1/20/7	1234567890	DN	11/09/5	DN	12/11/5	NR	NR	1/24	502V3	NRNR		
I	LOOP WIRING/RC #2 ANNUNCIATOR	3/03/6	7/28/6	10/24/6	1/20/7	1234567890	DN	11/09/5	DN	12/11/5	NR	NR	1/24	502V3	NRNR		
I	LOOP WIRING/MP ANNUNCIATOR	3/03/6	7/10/6	10/24/6	1/20/7	1234567890	DN	11/09/5	DN	12/11/5	NR	NR	1/24	502V3	NRNR		
I	TERMINAL BLOCKS-RC#1	3/03/6	7/10/6	1/20/7	1234567890	DN	10/22/5	DN	1/09/6	NR	NR	1/24	502V4	NRNR			

## INSTRUMENTATION

# DRAWING RECORD

LIBRARY 1941 6539

7/15/89

I-INSTRUMENTATION										PROJECT		STARTED		FINISHED		TEST APPROVAL		REVISIONS		ACTIVITY	
MODEL NO	DESCRIPTION	ISSUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	9/28/7	1234567890	DN	10/24/5	DN	1/14/6	NR	NR	1/24	502W1	NRNR						
1	PLC I/O WIRING	3/03/6	7/10/6	1/20/7	9/28/7	1234567890	DN	10/24/5	DN	1/09/6	NR	NR	1/24	502W1	NRNR						

REMARKS

RESOURCE RECOVERY FACILITY

## INSTRUMENTATION

# DRAWING RECORD

Contract No. 6539

FORNARD COUNTY 7/15/88

I-INSTRUMENTATION										PLANT		STARTED		CHECKED		EVALUATED		REVISION DATES		REVISION HOURS		ACTIVITY	
										BY	DATE	BY	DATE	BY	DATE	1	2	3	4	5	6	7	8
										REVISION DATES		REVISION HOURS											
I	TERMINAL BLOCKS-RC#1	3/03/6	6/27/6	10/24/6	1/20/7	1234567890	DN	10/22/5	DN	1/16/6	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS-MP	3/31/6	6/27/6	10/24/6		1234567890	DN	10/22/5	DN	1/14/6	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS-MP	3/03/6	6/27/6	10/24/6	1/20/7	1234567890	DN	10/22/5	DN	1/14/6	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS-RCV2	3/03/6	7/10/6	1/20/7		1234567890	DN	10/22/5	DN	1/09/6	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS-RCV2	3/03/6	6/27/6	10/24/6	1/20/7	1234567890	DN	10/22/5	DN	12/10/5	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS-RCV2	3/03/6	1/20/7			1234567890	DN	10/22/5	DN	1/16/6	NR	NR	1/24	502V4	NNNR								
I	TERMINAL BLOCKS/T-G PANEL	4/25/6				1234567890	DN	3/06/6	DN	4/23/6	NR	NR	4/28	502V4	NNNR								
I	TERMINAL BLOCKS/T-G PANEL	3/03/6	7/10/6	10/29/6		1234567890	DN	3/06/6	DN	4/23/6	NR	NR	4/28	502V4	NNNR								
I	TERMINAL BLOCKS/T-G PANEL	4/25/6	10/29/6	9/25/7		1234567890	DN	3/27/6	DN	4/23/6	NR	NR	4/28	502V4	NNNR								
I	LOOP WIRING/TURBINE	4/25/6	10/29/6			1234567890	DN	3/10/6	DN	4/23/6	NR	NR	4/28	502V3	NNNR								
I	LOOP WIRING/TURBINE	4/25/6	10/29/6			1234567890	DN	3/17/6	DN	4/23/6	NR	NR	4/28	502V3	NNNR								

RF MARKS

# RESOURCE RECOVERY FACILITY

CONTRACT NO 6539

## SECTION INSTRUMENTATION

## DRAWING RECORD

PROJECT NO 7715/88

### I-INSTRUMENTATION

CLIENT TOWER NO.		SEC CODE	I-INSTRUMENTATION		PRIORITY		STARTED		CHECKED		FOR APPROVAL		REVISION DATE REVISION HOURS	ACTIVITY NEW SPEC. NO.	REPAIR REVIEW	REMARKS		
DATE	NO.		ISSUED	DATE	BY	DATE	BY	DATE	DATE	DATE								
3		I	PLC TERMINAL BLOCKS	3/03/6	1/20/7	10/05/7	1234567890	DN	11/07/5	DN	1/16/6	NR	NR	1/24	502W2	NRNP		
4		I	PLC TERMINAL BLOCKS	3/03/6	7/10/6	1/20/7	10/05/7	1234567890	DN	11/07/5	DN	1/14/6	NR	NR	1/24	502W2	NRNR	
5		I	PLC TERMINAL BLOCKS	3/03/6				1234567890	DN	2/04/6	DN	4/23/6	NR	NR	4/28	502W2	NRNR	
0		I	PLC LOGIC	7/15/6	1/20/7			1234567890	DN	1/16/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/ANALOG	7/15/6				1234567890	DN	4/10/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/ANALOG	7/15/6				1234567890	DN	4/10/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/ACC FANS	7/15/6	1/20/7			1234567890	DN	4/01/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/ACC FANS	7/15/6	1/20/7			1234567890	DN	4/01/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/ACC FANS	7/15/6	1/20/7			1234567890	DN	4/01/6	DN	7/01/6	NR	NR	NR	502W3	NRNP	
		I	PLC LOGIC/8 COND PUMPS	7/15/6	1/20/7			1234567890	DN	1/16/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/SPRAY WATER	7/15/6	1/20/7			1234567890	DN	1/17/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/BCW	7/15/6	1/20/7			1234567890	DN	1/20/6	DN	7/15/6	NR	NR	NR	502W3	NRNR	
VOID		I	PLC LOGIC/BCW	7/15/6	1/20/7			1234567	NR	NR		NR	NR	NR	502W4	NRNR		
		I	PLC LOGIC/ACC PUMPS	7/15/6	1/20/7			1234567890	DN	1/21/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/TRANSFER PUMPS	7/15/6	1/20/7			1234567890	DN	1/21/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/CLEAR WELL PUMPS	7/15/6	1/20/7			1234567890	DN	1/22/6	DN	7/01/6	NR	NR	NR	502W3	NRNR	
		I	PLC LOGIC/SHUT/ACID/CAUSTICS															

Section \_\_\_\_\_ INSTRUMENTATION

FINAL (M) 6930

PHILIP ASAY 7/15/88

I-INSTRUMENTATION										REVISION RECORD										7/15/88									
SECTION CODE	MODEL NO	RELEASE/ON INSTEAD OF CONSTRUCTION	ISSUED	1		2		3		4		5		6		7		8		9		10		ACTIVITY REF SPEC NO	SICIA REV W				
				PERCENT	STARTED	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE			DATE			
				REVISION DATES										REVISION HOURS															
I	PLC LOGIC DIAGRAMS/CLARIFIED PUMPS	7/15/6	1/20/7	1234567890	DN	2/11/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 FANS	7/15/6	1/20/7	1234567890	DN	1/27/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 BPM PUMPS	7/15/6	1/20/7	1234567890	DN	1/27/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 FC PUMPS	7/15/6	1/20/7	1234567890	DN	1/31/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 HYDRAULICS	7/15/6	1/20/7	1234567890	DN	2/06/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 HYDRAULICS	7/15/6	1/20/7	1234567890	DN	2/07/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 HYDRAULICS	7/15/6	1/20/7	1234567890	DN	2/10/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 DRAG CONVEYORS	7/15/6	1/20/7	1234567890	DN	4/10/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/T-G	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 FANS	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 BPM PUMPS	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 FC PUMPS	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 HYDRAULICS	7/02/6	1/20/7	1234567890	DN	2/17/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 HYDRAULICS	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	6/30/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 HYDRAULICS	7/15/6	1/20/7	1234567890	DN	2/17/76	DN	6/30/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH1 MSW FEED	7/15/6	1/20/7	1234567890	DN	5/20/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					
I	PLC LOGIC/RCH2 MSW FEED	7/15/6	1/20/7	1234567890	DN	5/20/76	DN	7/01/76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR					



**APPENDIX 2-2**

**SPARE PARTS INVENTORY LIST**

Item	Description	Current Balance
108940	CONNECTOR, CABLE	0.00
108941	FITTING	0.00
109785	SHIELD, 8' 180WRAP 2.375ID 10GA SS	14.00
109786	CLIP, SHIELD	64.00
110372	DEFLECTOR PLATE AS PER DWG FM-1147 REV 0	0.00
110373	DEFLECTOR SPACER "A" DWG FM-340 REV 0	0.00
110374	DEFLECTOR WEAR "C" AS PER DWG FM-340 REV 0	1.00
110508	TUBE, ECONOMIZER	0.14
110510	TUBE, ECONOMIZER	0.14
110691	BEARING, MARTIN INTERNAL COLLAR	2.00
110692	2-3/8" OD X .301 MWT SA-213 T22 TUBE BEND 4" ON C	2.00
110693	PIPE, 2" SCH80 SEAMLESS	2.00
116541	HOE	0.00
117188	PLATE, 520C LOADER	0.00
117189	CANISTER, HEAD ASSEMBLY, 520C LOADER	0.00
117190	FILTER, ELEMENT, 520C & 515B LOADER	0.00
117191	HOSE, PUMP TO FILTER, 520C LOADER	0.00
117192	HOSE, 520C LOADER	0.00
117193	ANGLE, MOUNTING, 515B & 520C LOADER	0.00
117194	KIT, SEAL CYLINDER, 520C LOADER	0.00
117195	HOSE, STEERING VALVE RH CYL., 520C LOADER	0.00
117196	HOSE, STEERING CYL. CROSSOVER, 520C LOADER	0.00
117197	HOSE, 520C LOADER	0.00
117198	HOSE, COOLER TO TRANSMISSION, 520C LOADER	0.00
117199	VALVE, 520C OR 515B LOADER	0.00
117200	SUPPORTS, 520C LOADER	0.00
117201	FILTER, OIL, 520C LOADER	0.00
117202	GAUGE, TORQUE CONVERTOR TEMP., 520C LOADER	0.00
117203	ABSORBER, 520C LOADER	0.00
117204	FILTER, MICRO FUEL, 520C&515B LOADER	0.00
117205	FILTER, 520C, LOADER	0.00

117206	HOSE, STEERING VALVE TO MAIN RETURN, 520C LOADER	0.00
117207	HOSE, STEERING VALVE TO CONTROL VALVE, 520C LOADER	0.00
117208	BLADE, OUTSIDE CUTTING, 520C LOADER	0.00
117209	TENSIONER, 520C LOADER	0.00
117210	WASHER, 520C LOADER	0.00
117211	BOLT, NC 5/16X3/4, 520C&515B LOADER	0.00
117212	NUT, NC 5/16, 520C LOADER	0.00
117213	FILTER, FRESH AIR, 520C LOADER	0.00
117214	NUT, 520C LOADER	0.00
117215	JOINT, 520C LOADER	0.00
117216	RING, RETAINING	0.00
117217	CLAMP, 520C LOADER	0.00
117218	O-RING, 520C & 515B LOADERS	0.00
117219	BOLT, 520C & 515B LOADER	0.00
117220	SEAL, OIL, 520C LOADER	0.00
117221	O-RING, 520C LOADER	0.00
117222	O-RING, 520C LOADER	0.00
117223	RING, RETAINING	0.00
117224	HORN, BACK-UP, 520C LOADER	0.00
117225	WASHER, 520C LOADER	0.00
117226	BOLT, 520C LOADER	0.00
117227	BOLT, 520C LOADER	0.00
117228	GASKET, VALVE COVER, 520C LOADER	0.00
117229	END, ROD, 520C LOADER	0.00
117230	VALVE ASSEMBLY	0.00
117231	FILTER, HYDRAULIC, BOTH LOADERS	0.00
117232	SEAL, OIL, 520C LOADER	0.00
117233	O-RING, HYD., 520C LOADER	0.00
117234	BOLT, 520C LOADER	0.00
117235	CAP, 520C LOADER	0.00
117425	ABSORBANT, 30" X 150' ROLL	3.00
117463	VALVE, CHECK, AIR COMPRESSORS	1.00
117464	TUBE, AIR COMPRESSORS	3.00
117465	VALVE, AIR COMPRESSORS	1.00
117466	MUFFLER, AIR COMPRESSORS	4.00
117467	VALVE, RELIEF, AIR COMPRESSORS	4.00
117468	VALVE, VENT R-1/2", AIR COMPRESSORS	3.00
117469	FILTER, BLUE, AIR COMPRESSORS	4.00
117470	VALVE, INLET II, SOLENOID VALVE	3.00

117471	FITTING, PIPE R-1/4", AIR COMPRESSOR	4.00
117472	TUBE, SUCTION, AIR COMPRESSORS	5.00
117473	FITTING, AIR COMPRESSORS	2.00
117474	HOUSING, AIR COMPRESSORS	2.00
117475	VALVE, CHECK PISTON, AIR COMPRESSORS	3.00
117476	PLATE, AIR COMPRESSORS	4.00
117477	FITTING, AIR COMPRESSORS	3.00
117478	VALVE, SWING CHECK 3/4", COMPRESSORS	3.00
117479	VALVE, SWING CHECK 1-1/2", COMPRESSORS	1.00
117480	GASKET, TANK, AIR COMPRESSORS	18.00
117481	GASKET, INLET VALVE, AIR COMPRESSORS	12.00
117482	SPRING, AIR COMPRESSORS	3.00
117483	SPRING, COMPRESSION, AIR COMPRESSORS	5.00
117484	SPRING, AIR COMPRESSORS	1.00
117485	SPRING, AIR COMPRESSORS	5.00
117486	COUPLER, CLOSE M/M, AIR COMPRESSORS	3.00
117487	GASKET, DIAPHRAGM, AIR COMPRESSORS	5.00
117488	CLAMP, AIR COMPRESSORS	6.00
117489	GASKET, AIR COMPRESSORS	11.00
117490	O-RING, AIR COMPRESSORS	3.00
117491	O-RING, 3/4X1/2"	3.00
117492	O-RING, AIR COMPRESSORS	4.00
117493	O-RING, AIR COMPRESSORS	11.00
117494	O-RING, AIR COMPRESSORS	4.00
117495	SEAL, INLET VALVE, NEW COMPRESSOR	1.00
117496	FITTING, AIR COMPRESSORS	2.00
117497	FITTING, PIPE R-1/8", AIR COMPRESSORS	41.00
117498	FILTER, BLUE, AIR COMPRESSORS	1.00
117499	FITTING, ANGLE R 1/4", AIR COMPRESSORS	8.00
117500	FITTING, AIR COMPRESSORS	3.00
117501	FITTING, ANGLE R-1/8", AIR COMPRESSORS	6.00
117502	FITTING, AIR COMPRESSORS	6.00
117503	FITTING, AIR COMPRESSORS	2.00
117504	FERRULE, AIR COMPRESSORS	0.00

117505	FITTING, R-1/4", AIR COMPRESSORS	16.00
117506	WASHER, AIR COMPRESSORS	0.00
117507	COUPLER, M/M, AIR COMPRESSORS	2.00
117508	FITTING, STREET ELBOW, AIR COMPRESSORS	6.00
117509	GASKET, AIR COMPRESSORS	11.00
117510	CARTRIDGE, FILTER OIL, AIR COMPRESSORS	0.00
117511	FILTER, OIL, NEW COMPRESSOR	2.00
117512	CARTRIDGE, FILTER AIR, AIR COMPRESSOR	0.00
117513	SEPERATOR, OIL, AIR COMPRESSOR	2.00
117514	BELT, AIR COMPRESSORS	1.00
117515	SEPARATOR, NEW COMPRESSOR	1.00
117516	FILTER, AIR, NEW COMPRESSOR	0.00
117517	BELT SET, NEW COMPRESSOR	0.00
117518	SWITCH, DIFFERENTIAL PRESSURE, AIR COMPRESSORS	3.00
117519	SEAL, DIAPHRAGM, AIR COMPRESSORS	4.00
117520	RELAY, TIME DELAY, AIR COMPRESSORS	4.00
117521	RELAY, AIR COMPRESSORS	1.00
117522	VALVE, STOP OIL, AIR COMPRESSORS	1.00
117523	VALVE, SOLENOID, AIR COMPRESSORS	4.00
117524	BRACKET, AIR COMPRESSORS	1.00
117525	CONTACTOR, AIR COMPRESSORS	0.00
117526	CONTACTOR, AIR COMPRESSORS	2.00
117527	STARTER, MOTOR, AIR COMPRESSORS	1.00
117528	CONTACT, OVERLOAD	1.00
117529	THERMOSTAT, AIR COMPRESSORS	2.00
117530	THERMOSTAT, INLINE, NEW COMPRESSOR	1.00
117531	TRANSDUCER, NEW COMPRESSOR	1.00
117532	GAUGE, PRESSURE, AIR COMPRESSORS	1.00
117533	VALVE, SHUT-OFF, AIR COMPRESSORS	2.00
117534	VALVE, CHECK, AIR COMPRESSORS	0.00
117535	HOSE, 1/2", AIR COMPRESSORS	2.00
117536	HOSE, R 1/4"X27-9/16", AIR COMPRESSORS	2.00

117537	HOSE, 3/4", AIR COMPRESSORS	3.00
117538	VALVE, PRESSURE RELIEF, AIR COMPRESSORS	4.00
117539	VALVE, RELIEF, AIR COMPRESSORS	3.00
117540	HOSE, OIL INJECTION, NEW COMPRESSOR	2.00
117541	HOSE, AIR COMPRESSORS	1.00
117542	HOSE, #3 AIR COMPRESSOR	1.00
117543	HOSE, R3 X 25-25/64", AIR COMPRESSORS	1.00
117544	CONTACTOR, AIR COMPRESSORS	1.00
117545	CONTACTOR, AIR COMPRESSORS	1.00
117546	VALVE, PURGE, AIR COMPRESSOR	4.00
117548	BEARING, ACC FANS	2.00
117549	DISC, RUPTURE, ACC	0.00
117550	BUSHING, TAPER-LOCK, ACC FANS	1.00
117551	SEAL, OIL, ACC PUMPS	3.00
117552	SEAL, OIL, ACC FANS	2.00
117553	SEAL, OIL, ACC FANS	1.00
117554	SEAL, OIL, ACC FANS	2.00
117555	RING, RETAINING, ACC FANS	2.00
117556	COUPLER, ACC FANS	1.00
117557	BEARING, ACC FANS	6.00
117558	BEARING, ACC FANS	1.00
117559	JOINT, EXPANSION, ACC	1.00
117560	RING, COUPLING, ACC FANS	1.00
117561	GAUGE, 200 PSI, ACC FANS	0.00
117562	SEAL, OIL 180X210X15MM, ACC FANS	1.00
117563	BEARING, ACC FANS	4.00
117564	O-RING, CUNO FILTER HOUSING	1.00
117565	BEARING, FAG, ACC FANS	5.00
117566	PINION, ACC FANS	0.00
117567	PINION, ACC FANS	1.00
117568	SEAL, LOCKTITE #572, ACC FANS	0.00
117569	FILTER.CUNO, HOGGER HOUSE	12.00
117570	BEARING, SKF, ACC FANS	2.00
117571	SPRING, CUNO FILTER HOUSING	2.00
117572	TIP, CONTACT	0.00
117573	RING, ACC FANS	0.00
117574	SET, FASTENER, ACC FANS	1.00
117575	HUB, FLEX TYPE H, ACC FANS	1.00
117576	SLEEVE, TYPE HM, ACC FANS	1.00
117577	DISC, RUPTURE;ACC	2.00
117578	SEAT, VITON O-RING, ACC PUMPS	2.00
117579	ROTOR, ACC PUMPS	2.00

117580	COUPLING, FEMALE 2.375X5/8X5/16 BORE, ACC FANS	1.00
117581	COUPLER, 1.875X1/2X1/4, ACC FANS	1.00
117582	RING, RETAINING, ACC FANS	2.00
117583	CONTACTOR, AIR COMPRESSORS	2.00
117584	KIT, CONTACT, CUTLER HAMMER	2.00
117585	KIT, CONTACT, CUTLER HAMMER	3.00
117586	INSERT, RUBBER, ACC FANS	1.00
117587	INSERT, RUBBER SIZE 200 08, ACC FANS	0.00
117588	FILTER	3.00
117589	MOTOR, MARATHON, ACC FANS 100/25 HP	1.00
117590	FUSE, 200 AMP, ACC FANS	4.00
117591	FILTER, COALESCING	1.00
117592	GEARBOX, FLENDER, ACC	0.00
117593	MOTOR, SHORCH, AIR COMPRESSORS	1.00
117594	MUFFLER, GAS DRYING INC	1.00
117595	VALVE, SWING CHECK BRONZE, AIR DRYERS	2.00
117596	FILTER, CERAMIC, AIR DRYERS	2.00
117642	FILTER, AIR DRYER	0.00
117643	FILTER, AIR DRYER	0.00
117682	BOLT, 1"-8 X 6-1/2", VIBRATORY CONVEYORS	7.00
117683	BOLT, 1"-8 X 7", VIBRATORY CONVEYORS	7.00
117684	SPRING, GALV 15" X 1-1/4", ASH AISLE	3.00
117685	SPRING, GRIZZLY REACTOR KIT (SMALL), ASH AISLE	5.00
117686	SPRING, MARSHMELLOW	4.00
117687	SPRING, GALVENIZED, LARGE REACTOR KIT	4.00
117688	SPRING, GALV., ASH AISLE	3.00
117689	PLATE, SHEARMOUNT, MAIN VIBE	4.00
117690	KIT, ROCKER LEG, VIBRATING PAN CONVEYOR	4.00
117691	TORIO, RUBBER MARSHMELLOW, ASH AISLE CONVEYOR	4.00
117692	MOTOR, 5HP FEEDER	0.00
117693	BEARING, SEALMASTER, MAIN VIBE	1.00
117694	BEARING, SEALMASTER, MAIN VIBE	1.00
117695	SPROCKET, ASH AISLE MAGNET DRIVEN CHAIN	0.00
117696	LINK, MASTER 100RIV, ASH AISLE MAGNET	10.00

117697	LINK, OFFSET 100RIV, ASH AISLE MAGNET	1.00
117698	CHAIN, ROLLER, ASH AISLE MAGNET	10.00
117699	BOLT, ASH AISLE CONVEYORS	11.00
117700	BOLT, PLOW	16.00
117701	NUT, 1", ASH AISLE	0.00
117702	NUT, VIBRATING PAN CONV.	4.00
117703	NUT, LOCK, ASH AISLE CONVEYORS	52.00
117704	WASHER, 1" HARD STEEL S.A.E.	12.00
117705	WASHER, MS, 3"X1-1/16"X1/2" ASH AISLE	13.00
117706	WASHER, ASH AISLE CONVEYORS	72.00
117707	KIT, BELT FASTENER, BOTTOM ASH BELT	3.00
117708	BUSHING, REDUCER, BOTTOM ASH BELT	1.00
117709	BELT, GOODYEAR, MAIN VIBRATORY CONVEYOR	1.00
117710	BOLT, 1" X 4-1/2"	3.00
117711	BOLT, 1"- 8 X 10", DOUBLE ROCKER ARMS	9.00
117712	SHIELD, POLY	3.00
117713	J-BOLT KIT	0.00
117714	SPRING, TENSION	2.00
117715	CASTER, RANGER SWIVEL, ASH AISLE	0.00
117716	CASTER, RANGER RIGID, ASH AISLE CARTS	0.00
117717	SKIRTBOARD, 10" X 3/8" RUBBER (50 FOOT ROLL)	0.00
117718	BELT, 30"W X 55'11"L R5S SS FASTENER GRADE 2	0.00
117719	BELT, 30"W X 35' 4" L 2PLY, FLYASH BELT CONVEYOR	1.00
117720	BELT, 30" 2PLY 220PIW 3/16" X 1/16" COVER 56'-6"	1.00
117721	BELT, DRIVE, BOTTOM ASH BELT	3.00
117722	IDLER, TROUGHING, BA & FA BELT	0.00
117723	IDLER, TROUGHING, BOTTOM ASH BELT	0.00
117724	PLATE, TORIOS, ASH AISLE CONVEYORS	4.00
117725	SPACER, PIPE, GRIZZLY	4.00
117726	ROD, THRU, ASH AISLE CONVEYORS	4.00



117727	IDLER, RETURN, BOTTOM ASH BELT	0.00
117728	IDLER, RETURN, BOTTOM ASH BELT	0.00
117729	GEARBOX, FOOTE-JONES, ASH AISLE MAGNET	0.00
117730	MOTOR, FERROUS CONVEYOR	1.00
117731	SKIRTBOARD	0.00
117732	CLEANER, BELT BRUSH, LG BELT CONVEYOR	1.00
117733	ASSEMBLY, TAKE-UP DODGE, SM BELT CONVEYOR	2.00
117734	TIP, X-SMALL, TRAILOR BELT	0.00
117735	TIP, PRIMARY CLEANER, BOTTOM ASH BELT	3.00
117736	CUSHION, TIP, CONVEYOR BELT	6.00
117737	TIP, SECONDARY CLEANER, BOTTOM ASH BELT	10.00
117738	BRACKET, MOUNTING, LG BELT CONVEYOR	8.00
117739	MOTOR, 25HP, MAIN VIBE	1.00
117740	MAGNET, STEARNS	1.00
117741	MOTOR, BALDOR, MAGNET	1.00
117742	BEARING, TAIL, BOTTOM ASH BELT	0.00
117743	BUSHING	2.00
117744	BUSHING, BEARING, MARTIN 2-1/8" BORE	2.00
117745	BUSHING, TAPERLOCK, FINES FEEDER	2.00
117746	BEARING, 2-3/16", FLYASH BELT TAIL PULLEY	2.00
117747	ASSEMBLY, WHEEL FRONT, STREET SWEEPER	0.00
117748	CONNECTOR, FEMALE	1.00
117749	BROOM, SIDE, AMERICAN SWEEPER	1.00
117750	BROOM, MAIN, AMERICAN SWEEPER	1.00
117751	FILTER, PANEL, AMERICAN SWEEPER	1.00
117752	CARTRIDGE, SUCTION VALVE, NEPTUNE PUMPS	0.00
117753	PIN, ACID PUMPS	0.00
117754	NUT, DISCHARGE VALVE, NEPTUNE PUMPS	0.00
117755	WASHER, ACID PUMPS	0.00
117756	HOUSING, ADJ. HANDLE, ACID PUMPS	0.00
117757	KNOB, ADJUSTING, ACID PUMPS	0.00
117758	KIT, REBUILD, NEPTUNE PUMPS	2.00
117759	PUMP, CAUSTIC	1.00

117760	ASSEMBLY, AIR VALVE, ACID PUMPS	1.00
117761	PIN, DOWEL, ACID PUMPS	0.00
117762	O-RING, ACID PUMPS	0.00
117763	SCREW, SET, ACID PUMPS	0.00
117764	SPRING, ANTI-SIPHON, NEPTUNE PUMPS	0.00
117765	GASKET, ACID PUMPS	0.00
117766	BALL, CHECK, ACID PUMPS	0.00
117767	PACKING, ACID PUMPS	0.00
117768	O-RING, ACID PUMPS	0.00
117769	CONNECTOR	0.00
117771	ELBOW	0.00
117825	BOLT, 7/8"-9 X 2-1/4" GR 8	0.00
117826	BOLT, 7/8"-9 X 2-1/2" GR 8	80.00
117827	NUT, 7/8"-9 GR 8	100.00
117839	SPROCKET, ASH AISLE MAGNET DRIVE CHAIN	1.00
117840	CONNECTOR - FEMALE #266-P-04X04	133.00
117841	BEARING, PILLOW-BLOCK LINKBELT, BA CONVEYOR	0.00
117842	ROLLER, TROUGH 20 DEG, SM BELT CONVEYOR	1.00
117843	ROLLER, FLAT, SM BELT CONVEYOR	1.00
117844	BEARING, SKF, BOTTOM ASH CONVEYOR	0.00
117845	CHAIN, 698, BOTTOM ASH	24.00
117846	SPROCKET, TAIL, BOTTOM ASH CONVEYOR	2.00
117847	ATTACHMENT, S-22 698 CHAIN, BOTTOM ASH	36.00
117848	BELT, POWERBAND, BAC	1.00
117849	BELT, POWERBAND, BAC	0.00
117850	BALL, FLOAT 8", BAC	1.00
117851	BELT, 5/B144, BALTIMORE AIRCOIL	0.00
117852	VALVE, ASCO, BAC FILL LINE	0.00
117853	BELT, GOODYEAR	0.00
117854	MOTOR, BALDOR 1HP	1.00
117855	SENSOR, FLOW, DEMIN SYSTEM	0.00
117856	KIT, FLOAT VALVE 1", BAC	1.00
117857	KIT, COIL NOZZLE AND GROMMET, BALTIMORE AIRCOIL	7.00
117858	KIT, BEARING, BAC	4.00
117859	MOTOR, BAC SPRAY WATER PUMP	1.00
117860	ASSEMBLY, TAKE-UP, BOTTOM ASH & SIFTING CONVEYOR	0.00

117861	BEARING, FLANGE 2-15/16, A MODE	1.00
117862	BEARING, FLANGE BLOCK, B MODE	1.00
117863	REDUCER, SUMITOMO	1.00
117864	RAIL, BOTTOM ASH CONVEYORS	1.00
117865	RAIL, ANGLED HOLD DOWN, BOTTOM ASH CONVEYORS	1.00
117866	TRACK, BOTTOM ASH CONVEYORS	1.00
117867	RING, RETAINING, BOTTOM ASH CONVEYORS	0.00
117868	MOTOR, BOTTOM ASH CONVEYORS	1.00
117869	BLOCK, FILLER 698 CHAIN, BOTTOM ASH	40.00
117870	WHEEL, TRACTION BA CONVEYORS	0.00
117871	SHAFT, HEAD, BOTTOM ASH CONVEYOR	1.00
117872	SHAFT, SUBMERGED, BOTTOM ASH CONVEYOR	0.00
117873	SHAFT, LOWER TURN, BA CONVEYORS	1.00
117874	SHAFT, TAKE UP, BA & SIFT CONVEYOR	0.00
117875	FLIGHT, BOTTOM ASH CONVEYORS	22.00
117876	PIN, COUPLER THD 698 CHAIN, BOTTOM ASH CONVEYORS	5.00
117877	SPROCKET, HEAD SPLIT, BOTTOM ASH CONVEYORS	0.00
117878	CONTROLLER, LOAD, BOTTOM ASH	1.00
117879	WHEEL, SPLIT/RESESSED TRACTION, BOTTOM ASH CONVEYORS	0.00
117882	BEARING, SKF HEAD SECTION, BOTTOM ASH CONVEYOR	0.00
117883	ADAPTER, BEARING, BOTTOM ASH CONVEYOR	0.00
117884	FRAME, TAKEUP BEARING, BOTTOM ASH CONVEYORS	0.00
117885	MANIFOLD, SDAF-20 GAS MANIFOLD W/ 6 NOZZLES	0.00
117886	ASSEMBLY, PILOT 36"NOM, SST HEAD, BOILER BURNERS	0.00
117887	ASSEMBLY, SPARK PLUG, BOILER BURNERS	2.00
117888	POWER SUPPLY, BOILER BURNERS	1.00
117889	CONTROL, ACTUATOR, GAS BURNERS	1.00
117890	TRANSMITTER, EAI #MM6010 ISO, BOILER BURNERS	1.00

117891	SCANNER, #UV1A6 W/6' LEAD FIRE EYE, BOILER BURNERS	1.00
117892	CARD, PROGRAM EP160, BOILER BURNERS	1.00
117893	SWITCH, #B424VXFMG6-30PSI ASH, BOILER BURNERS	2.00
117894	SWITCH, #B424VXFMG6-30PSI ASH, BOILER BURNERS	1.00
117895	RELAY, EAI #RH2B-U-DC24V DPDT, BOILER BURNERS	2.00
117896	RELAY, EAI #RH2B-U-AC120V DPDT, BOILER BURNERS	6.00
117897	RELAY, EAI #RH1B-U-AC120V SPDT, BOILER BURNERS	3.00
117898	RELAY, EAI #RH3B-U-AC120V 3PDT, BOILER BURNERS	1.00
117899	POTENTIOMETER, EAI #800H-UR4, BOILER BURNERS	1.00
117900	GAUGE, 3-30PSI 2.5" FACE, BOILER BURNERS	5.00
117901	RELAY, TIME DELAY EAI #GT5Y-2SN3A100, BOILER BURNERS	2.00
117902	RELAY, EAI #K10P-11A15-120, BOILER BURNERS	2.00
117903	TRANSFORMER, IGNITION, BOILER BURNERS	1.00
117904	POTENTIOMETER, EAI MM4003IS0, BOILER BURNERS	1.00
117905	BUTTON, 3SB03-PFR, BOILER BURNERS	4.00
117906	LENS, BLUE #3SB1910-1JF, BOILER BURNERS	4.00
117907	LENS, GREEN #3SB1910-1JE, BOILER BURNERS	4.00
117908	LENS, AMBER #3SB1910-1JD, COEN BURNERS	4.00
117909	LAMP, OPERATOR #3SB03-L, BOILER BURNERS	0.00
117910	LAMP, MODULE #3SB1400-2K, BOILER BURNERS	2.00
117911	LENS, RED #3SB1910-1JC, BOILER BURNERS	4.00
117912	ASSEMBLY, WIRE, BOILER BURNERS	1.00
117913	GAUGE, 0-30PSI 1/4" BOTTOM CONNECTION	4.00

117914	GASKET, FYR-LYTER MTG PLATE, BOILER BURNERS	8.00
117915	GASKET, 3-4" AC VALVE BONNET, BOILER BURNERS	3.00
117916	KIT, REPAIR AC GAS FCV	1.00
117917	PLUG, 3" AC GAS VALVE	1.00
117918	VALVE, 2" NPT FIG 611	1.00
117919	VALVE, SOLENOID 2-WAY, BOILER BURNERS	2.00
117920	VALVE, SOLENOID 3-WAY, BOILER BURNERS	2.00
117921	VALVE, SOLENOID 1/4", BOILER BURNERS	1.00
117922	VALVE, 3" THREADED MAXON	2.00
117923	NOZZLE, GAS BURNER	1.00
117924	SPINNER, ISO, BOILER BURNERS	1.00
117925	TRANSMITTER, LEVEL, BCW TANK	0.00
117926	SEAL, OIL CHICAGO RAWHIDE, BCW PUMPS	3.00
117927	MOTOR, SIEMENS, BCW PUMPS	1.00
117928	ELEMENT, FLEX SPACER	1.00
117929	IMPELLER, BCW PUMPS	1.00
117930	SCREW	0.00
117931	BUSHING, STUFFING BOX	2.00
117932	GRID, DODGE, BOILER FEEDWATER PUMPS	1.00
117933	HUB, RB, BOILER FEEDWATER PUMPS	2.00
117934	RING, SEAL, BOILER FEEDWATER PUMPS	3.00
117935	NUT, SS, BOILER FEEDWATER PUMPS	0.00
117936	BUSHING, SPLIT, BOILER FEEDWATER PUMPS	3.00
117937	COLLAR, THRUST, BOILER FEEDWATER PUMPS	0.00
117938	RING, OIL, BOILER FEEDWATER PUMPS	2.00
117939	SHOES, KTB, BOILER FEEDWATER PUMPS	6.00
117940	SHOES, KTB, BOILER FEEDWATER PUMPS	6.00
117941	MOTOR, BFW PUMPS	0.00
117942	GASKET, BOILER FEEDWATER PUMPS	0.00

117943	SLEEVE, SPACER, BOILER FEEDWATER PUMPS	1.00
117944	BUSHING, BOILER FEEDWATER PUMPS	6.00
117945	PIN, BOILER FEEDWATER PUMPS	10.00
117946	KIT, FLANGE ASSEMBLY, BFW PUMPS	1.00
117947	GASKET, BOILER FEEDWATER PUMPS	2.00
117948	GASKET, RED FIBER, BOILER FEEDWATER PUMPS	2.00
117949	RING, CASING, BOILER FEEDWATER PUMPS	8.00
117950	HOSE, BRAIDED, BFW COOLING WATER (19")	0.00
117951	SHIM, BFW STEAM PUMP	3.00
117952	SHIM, BFW STEAM PUMP	3.00
117953	SHIM, BFW STEAM PUMP	1.00
117954	PIN, GROOVE, BFW STEAM PUMP	20.00
117955	PACKING, BOILER FEEDWATER PUMPS	2.00
117956	HOLDER, HI-PRESSURE 316SS 442HP-20, BOILER FEEDWATER	1.00
117957	SEAL, MECHANICAL 442-20, BOILER FEEDWATER PUMPS	1.00
117958	KIT, SPARE PARTS, BOILER FEEDWATER PUMPS	1.00
117959	VALVE, FISHER, BFW STATION	0.00
117960	COUPLER, SHAFT THD, BOILER FEEDWATER PUMPS	1.00
117961	O-RING, BFW STEAM PUMP	1.00
117962	SHIM, BFW STEAM PUMP	1.00
117963	NUT, BFW STEAM PUMP	1.00
117964	WASHER, LOCK, BFW STEAM PUMP	1.00
117965	WASHER, LOCK, BFW STEAM PUMP	0.00
117966	SHIM, BFW STEAM PUMP	2.00
117967	SHIM, BFW STEAM PUMP	1.00
117968	SHIM, BFW STEAM PUMP	1.00
117969	SWITCH, PRESSURE, ASHCROFT;BFW PUMPS	1.00
117970	SLEEVE, WO/O-RING, BFW PUMPS	1.00
117971	COUPLING, HALF, BFW PUMPS	1.00
117972	COUPLING, HALF, BFW PUMPS	1.00
117973	SPRING, BLU WHITE PUMPS	1.00
117974	VALVE, CHECK, BLUE WHIYE PUMPS	4.00
117975	O-RING, BLUE WHITE PUMPS	4.00

117976	PIN, ROLLER, P&H CRANES	10.00
117977	BUSHING, VALVE STEM OUTER 1015	1.00
117978	RING, OIL 2366	1.00
117979	RING, OIL 218	1.00
117980	VALVE, GOVERNOR 1018	1.00
117981	LINK, VALVE 437	1.00
117982	BAFFLE, OIL 2360	2.00
117983	GASKET, STEAM CHEST	1.00
117984	ASSEMBLY, BUSHING & VALVE 1019	1.00
117985	GASKET,424	1.00
117986	SPRING, CARBON RING 141/191	10.00
117987	GASKET,1023	1.00
117988	BUSHING, VALVE STEM INNER 1016	1.00
117989	RING, CARBON 140/190	10.00
117990	KIT, GOVERNOR PARTS 90-97	0.00
117991	PACKING, VALVE STEM	6.00
117992	SPINDLE, VALVE 441	1.00
118040	WHEEL, FLYASH RETURN CONVEYORS	0.00
118041	MUFFLER, SCHRADER BELLOWS, BAGHOUSE	12.00
118042	CYLINDER, AIR, BAGHOUSE	0.00
118043	LUBRICATOR, PARKER 1/2", BAGHOUSE	0.00
118044	SPRING, CONICAL, BAGHOUSE BAG	0.00
118045	WASHER, LOWER TENSION SPRING, BAGHOUSE BAG	0.00
118046	WASHER, UPPER TENSION SPRING, BAGHOUSE BAG	0.00
118047	CLIP, BAG TENSION, BAGHOUSE BAG	0.00
118048	PLATE, MOUNTING	2.00
118049	EXTENTION, 6"	2.00
118050	PULLEY, DRIVE, REVERSE AIR FANS	0.00
118051	HANGER, BEARING BEARING, MARTIN, BAGHOUSE	0.00
118052	HANGER, BEARING BEARING, MARTIN, BAGHOUSE	0.00
118053	PADDLE	2.00
118054	KIT, CONNECTOR, OPACITY MONITORS	1.00
118055	MOTOR, PACK	2.00
118056	ARM, DDD ACTUATING ASSEMBLY, BAGHOUSE	1.00
118057	FLAPPER, DDD, BAGHOUSE	2.00
118058	GASKET, DDD COVER, BAGHOUSE	0.00

118059	GASKET, DDD FLANGE, BAGHOUSE	1.00
118060	GASKET, DDD SEAT, BAGHOUSE	2.00
118061	LINK, DDD ACTUATING ASSEMBLY, BAGHOUSE	1.00
118062	PIN, DDD WRIST FLAPPER, BAGHOUSE	3.00
118063	SEAT, DDD, BAGHOUSES	2.00
118064	SHAFT, DDD LOWER ACTUATING, BAGHOUSE	2.00
118065	GAUGE, MAGNEHELIC (0-30" H2O)	4.00
118066	BEARING, DDD ROD END, BAGHOUSE	6.00
118067	BEARING, DDD SHAFT ACTUATING, BAGHOUSE	2.00
118068	KEY, DDD SHAFT, BAGHOUSE	2.00
118069	NUT, DDD SEAT, BAGHOUSE	4.00
118070	PADDLE, FLY ASH DRAG, FLY ASH DRAG CONVEYORS	0.00
118071	PIN, DDD COTTER FLAPPER	4.00
118072	SCREW, DDD FRONT COVER, BAGHOUSE	4.00
118073	SCREW, DDD BEARING, BAGHOUSE	2.00
118074	SCREW, DDD ROD END BEARING, BAGHOUSE	1.00
118075	SCREW, DDD SEAT, BAGHOUSE	4.00
118076	SEAL, DDD SHAFT ACTUATING, BAGHOUSE	4.00
118077	WASHER, DDD FLAPPER PIN, BAGHOUSE	4.00
118078	WASHER, DDD SHIM SEAL, BAGHOUSE	16.00
118079	ASSEMBLY, DDD AIR CYLINDER, BAGHOUSE	0.00
118080	WHEEL, CHAIN W/45' CHAIN, BAGHOUSE	1.00
118081	PAPER, CHART	8.00
118082	GAURD, BELT, BAGHOUSE SCREW	0.00
118083	REDUCER, DODGE, BAGHOUSE SCREW	0.00
118084	PEN, HONEYWELL PK/6 , BAGHOUSE CHART RECORDER	0.00
118085	KIT, CHART HYB, HONEYWELL	2.00
118086	SEAL, OIL, BAGHOUSE GEAR REDUCERS	2.00
118087	ADAPTER, DODGE, BAGHOUSE SCREW	1.00



118088	MOUNT, MOTOR, BAGHOUSE SCREW	1.00
118089	SHAFT, DRIVE, DODGE, BAGHOUSE SCREW 3-7/16"	1.00
118090	SEAL, OIL, BAGHOUSE GEARBOXS	0.00
118091	CLAMP, BOOT, BAGHOUSE	0.00
118092	SWITCH, KEY, OPACITY MONITORS	1.00
118093	FUSE, 5 AMP, OPACITY MONITORS	6.00
118094	FUSE, 2 AMP, OPACITY MONITORS	6.00
118095	FUSE, 1.25 AMP, OPACITY MONITORS	6.00
118096	SWITCH, PURGE, OPACITY MONITORS	2.00
118097	FILTER, PURGE AIR, OPACITY MONITORS	12.00
118098	FLUID, LENS CLEANING, OPACITY MONITORS	1.00
118099	WIPE, LINT FREE, OPACITY MONITORS	1.00
118100	BATTERY, BACKUP, OPACITY MONITORS	1.00
118101	GAUGE, LED "DWYER"	2.00
118102	COUPLING, DOUBLE LOOP (1/2" X 1/2")	0.00
118103	ASSEMBLY, TAKE UP SPRING	97.00
118104	VALVE, DIRECTIONAL, BAGHOUSE DD	1.00
118105	REGULATOR, 0-125PSI, BAGHOUSE	2.00
118106	PULLEY, DRIVEN, REVERSE AIR FANS	0.00
118107	GEARBOX, FOOTE-JONES, BAGHOUSE	1.00
118108	PEN, CHART RECORDER, RED	12.00
118109	CONTROLLER, EXEC ID5, BAGHOUSE	1.00
118110	ROD, DRILL, FLYASH RETURN SHAFT	1.00
118111	BOOT, ROD, BAGHOUSE	41.00
118112	JOINT, EXPANSION, SPARK BOX	0.00
118113	CLAMP, BAGHOUSE BAG	88.00
118114	HOSE, PURGE 1", OPACITY MONITORS	2.00
118115	CLAMP, PURGE HOSE, OPACITY MONITORS	2.00
118116	HEAD, DESICATOR, OPACITY MONITORS	1.00
118117	VALVE, PNEUMATIC SOLINOID, BAGHOUSE	2.00
118118	VALVE, SOLINOID, BELLOWS	1.00
118119	BELT, GOODYEAR, BAGHOUSE	4.00
118120	BELT, BAGHOUSE SCREW	0.00
118121	BELT, BAGHOUSE SCREW	2.00
118122	BELT, REVERSE AIR FANS	4.00

118123	SHAFT, END, BAGHOUSE SCREW 3-7/16"	0.00
118124	DOOR, COMPARTMENT	0.00
118125	DAMPER, REVERSE AIR 26", BAGHOUSE	0.00
118126	PLATE, STIFFENER 16", BAGHOUSE	0.00
118127	ASSEMBLY, LIFTING SHAFT, BAGHOUSE	8.00
118128	PIN, COTTER, BAGHOUSE	11.00
118129	BUSHING, BRASS	1.00
118130	WASHER, FLAT, BAGHOUSE	8.00
118131	WASHER, LOCK, BAGHOUSE	7.00
118132	NUT, HEX, BAGHOUSE	29.00
118133	NUT, CASTLE, BAGHOUSE	7.00
118134	SOLINOID, LIME SILO BAGHOUSE	3.00
118135	OILER, AIRLINE, BAGHOUSE	1.00
118136	BEARING, DODGE, FLYASH RETURN	0.00
118137	DETECTOR, LEAK ORANGE, BAGHOUSE	7.00
118138	CYLINDER, BAGHOUSE DAMPER, BAGHOUSE	0.00
118139	BAG, BAGHOUSE, BAGHOUSE	29.00
118140	BAG, BAGHOUSE, MEMBRANE TYPE	0.00
118141	MOTOR, SIEMENS, REVERSE AIR FANS	1.00
118142	BOLT, BAGHOUSE BAG	0.00
118143	KIT, DIAPHRAGM REPLACEMENT, LIME SILO BAGHOUSE	3.00
118144	KIT, REBUILD, BAGHOUSE DD RELAYS	0.00
118145	VALVE, PNEUMATIC, BAGHOUSE DAMPERS	4.00
118146	MOTOR, LINCOLN, BAGHOUSE SCREW	0.00
118147	BEARING, SUPERPACK, DRIVE END PLATE (BAGHOUSE) SEAL ONLY	1.00
118148	DAMPER, OUTLET 30", BAGHOUSE	3.00
118149	FILTER, DONALDSON, OPACITY MONITOR	4.00
118150	MOTOR, 5HP, BAGHOUSE	1.00
118151	CONNECTOR, BAGHOUSE AIR DAMPERS	4.00
118152	CONNECTOR, BAGHOUSE CONTROL VALVES	2.00
118153	BEARING, LINKBELT, REVERSE AIR FANS	2.00
118154	BUSHING, DRIVE, REVERSE AIR FANS	1.00

118155	BUSHING, DRIVEN, REVERSE AIR FANS	1.00
118156	KIT, SEAL, PLATTCO 15545 CYLINDER	0.00
118157	PLATE, STIFFENER 22", BAGHOUSE	10.00
118158	BEARING, SUPERPACK STUFFING BOX (BAGHOUSE ONLY)	1.00
118159	BOX, GEAR DODGE, BAGHOUSE	2.00
118168	GASKET, 1/2 IN 3-600 LB FLEXITALLIC, BOILER PARTS	10.00
118169	GASKET, 1/2 IN 9-1500 LB FLEXITALLIC, BOILER PARTS	7.00
118170	GASKET, 3/4 IN 600 LB FLEXATALLIC, BOILER PARTS	6.00
118171	GASKET, 3/4 IN 9-1500 LB FLEXITALLIC, BOILER PARTS	8.00
118172	GASKET, KIT, ATTEMPERATOR VALVE, BOILERS	1.00
118173	GASKET, FLEXITALLIC, BOILERS	8.00
118174	GASKET, FLEXITALLIC, BOILER PARTS	5.00
118175	VALVE, 1.5" 800# RISING STEM GATE A105 SOCKET WELD	1.00
118176	TRAP, 1-1/2" FLOAT	0.00
118177	GASKET, FLEXITALLIC, BOILER PARTS	7.00
118178	GASKET, FLEXITALIC, 1-1/2" 300/400/600# FLEX	12.00
118179	GASKET, FLEXITALLIC, BOILER PARTS	7.00
118180	VALVE, FISHER, SOOTBLOWERS	0.00
118181	HATCH, INSPECTION, SCREW CONVEYORS	0.00
118182	GASKET, FLEXITALLIC, BOILER PARTS	10.00
118183	GASKET, FLEXITALLIC	12.00
118184	GASKET, FLEXITALLIC	12.00
118185	GASKET, FLEXITALLIC	11.00
118186	GASKET, FLEXITALLIC	14.00
118187	VALVE, 1" 800# RISING STEM GATE A105 SOCKET WELD	3.00
118188	VALVE, CHECK 3", BOILERS	1.00
118189	VALVE, CHECK 4", BOILERS	1.00
118190	GASKET, FLEXITALLIC	5.00
118191	GASKET, FLEXITALLIC	7.00
118192	GASKET, FLEXITALLIC	11.00

118193	GASKET, FLEXITALLIC	7.00
118194	GASKET, FLEXITALLIC	9.00
118195	GASKET, FLEXITALLIC	18.00
118196	GAUGE, DWYER -3/0/3 (H2O)	4.00
118197	GAUGE, DP	4.00
118199	GAUGE, DWYER -1/0/1 (H2O)	2.00
118200	GAUGE, DP	3.00
118201	GAUGE, DP	4.00
118202	CABLE, PROBE INTERCONNECT 40', BOILERS	1.00
118203	DIAPHRAGM, FISHER VALVE, SOOTBLOWER	3.00
118204	GASKET, FLEXITALLIC	6.00
118205	GASKET, FLEXITALLIC	4.00
118206	GASKET, FLEXITALLIC	9.00
118207	VALVE, 3/4" 800# RISING STEM GATE A105 SOCKET WELD	2.00
118208	VALVE, SAFETY, KUNKLE	1.00
118209	PLATE, ADAPTER W/HARDWARE, BOILERS	1.00
118210	VALVE, BUTTERFLY S.S. 3"	1.00
118211	GASKET, MANWAY 12 X 16, STEAM&MUD DRUMS (SET/4)	1.00
118212	POWER SUPPLY, CARD	0.00
118213	CONTROL, CARD	1.00
118214	POWER SUPPLY, WC 3000 (REBUILT)	0.00
118215	BOARD, POWER SUPPLY, O2 MONITOR	1.00
118216	PROBE, OXYGEN ANALYZER ROSEMOUNT, BOILERS	0.00
118217	GASKET, FLEXITALLIC	23.00
118218	GASKET, FLEXITALLIC	6.00
118219	GASKET, FLEXITALLIC	8.00
118220	SEAL, GORE-TEX 1/4" X 3/32" X 20' ROLL	4.00
118221	SEAL, GORE-TEX 3/8" X 1/8" X 12' ROLL	1.00
118222	SEAL, GORE-TEX 1/2" X 7/32" X 5' ROLL	2.00
118223	SEAL, GORE-TEX 3/4" X 19/64" X 7' ROLL	2.00
118224	DIAPHRAGM, FISHER 45-50 FOR 667 VALVE, SOOTBLOWERS	3.00
118225	DIAPHRAGM, FISHER 657 VALVE	1.00
118226	VALVE, VENT FISHER, SUPERHEATERS	0.00

118227	VALVE, PRESSURE RELIEF WATTS, BOILERS	2.00
118228	PROBE, BOILER CLASS 3000, BOILERS	2.00
118229	VALVE, BRASS , BOILERS	2.00
118230	GASKET, FLEXITALLIC	8.00
118231	GASKET, FLEXITALLIC	10.00
118232	GASKET, FLEXITALLIC	10.00
118233	GASKET, FLEXITALLIC	3.00
118234	GASKET, FLEXITALLIC	16.00
118235	GAUGE, ASHCROFT TEMP (0-250)	1.00
118236	GAUGE, ASHCROFT BIMETALS BOILERS	4.00
118237	GAUGE, ASHCROFT BIMETALS, BOILERS	0.00
118238	GAUGE, ASHCROFT BIMETALS, BOILERS	2.00
118239	TRANSDUCER, FISHER CONTROLS (6-30 PSI)	1.00
118240	TRANSDUCER, FISHER VALVES (0-15 PSI)	1.00
118241	METER, FLOW S10F, BOILERS	1.00
118242	METER, FLOW S31F, BOILERS	1.00
118243	GASKET, FLEXITALLIC	13.00
118244	GASKET, FLEXITALLIC	12.00
118245	GASKET, FLEXITALLIC	10.00
118246	LENS, AUTO IRIS 3.5-8 MM	1.00
118247	KIT, FILTER REPLACEMENT, BOILERS	2.00
118248	VALVE, SAFETY RELIEF, SUPERHEATERS	1.00
118249	GASKET, FLEXITALLIC	4.00
118250	GASKET, FLEXITALLIC	5.00
118251	GASKET, FLEXITALLIC	6.00
118252	GASKET, FLEXITALLIC	14.00
118253	VALVE, SAFETY RELIEF, BOILER	0.00
118254	VALVE, SAFETY RELIEF, BOILER	0.00
118255	STRIP, 4" ADHESIVE BACK FIBERGLASS (50' ROLL)	2.00
118257	STRIP, 2" FIBERGLASS (50' ROLL)	0.00
118258	STRIP, 6" FIBERGLASS (50' ROLL)	3.00
118259	GASKET, FLEXITALLIC	8.00
118260	GASKET, FLEXITALLIC	8.00
118261	GASKET, FLEXITALLIC	2.00
118262	GASKET, FLEXITALLIC	16.00
118263	VALVE, YARWAY 2"	1.00

118264	REDUCER, WINSMITH, BOILER SCREW	1.00
118265	CAMERA, COLOR, COMBUSTION CONTROL	1.00
118266	VALVE, STRAIGHT BLOWDOWN, EDWARDS	1.00
118267	VALVE, Y TYPE BLOWDOWN, EDWARDS	0.00
118268	WASHER, BOILER SIGHT GLASS, BOILERS	118.00
118269	VALVE, BOILERS	1.00
118270	PLUG, TUBE, AIR HEATERS	26.00
118271	PLUG, TUBE, BOILERS	47.00
118272	HANDLE, BUTTERFLY VALVE	4.00
118273	CLIP FOR BL-TUBSHLD-C	493.00
118274	CLIP FOR BL-TUBSHLD-FL	954.00
118275	GASKET, BOILER DOOR	0.75
118276	TUBE, ECON, "J" BEND, 3-1/2" RADIUS BEND	38.00
118277	TUBE, ECON, "J" BEND, 6" RADIUS BEND	11.00
118278	VALVE, GATE 3"X600#	3.00
118279	KIT, FLANGE, BOILERS	2.00
118280	VALVE, FISHER, FEEDWATER STATION	0.00
118281	GLASS, CAMERA, 2-7/8" DIA X 1/8" THK HIGH TEMP	5.00
118282	GLASS, CAMERA, 4.2" DIA X 1/4" THK HIGH TEMP	6.00
118283	PROBE, THERMOCOUPLER, FURNASS	4.00
118284	VALVE, BUTTERFLY 8"	2.00
118285	VALVE, BRASS, BOILERS	4.00
118286	VALVE, VALVETECH 1/2"	1.00
118287	BEARING, NTA	2.00
118288	VALVE, PCV420	1.00
118289	WINDOW, BOILER SIGHT GLASS, BOILERS	3.00
118290	NUT, SIGHT GLASS, P3105	1.00
118365	RING, JOINT, BOILER SITE GLASS	2.00
118388	HANDLE, DOOR RIGHT, BOILERS	4.00
118389	PIPE, PRIMARY SUPERHEATER MATERIAL	0.00
118390	STRIP, COLOR BLUE, SIMPLIPORT SIGHTGLASS	2.00
118391	STRIP, COLOR RED SIMILIPORT SIGHTGLASS, BOILERS	2.00

118392	BEARING, SKF, SOOTBLOWERS	4.00
118393	VALVE, GATE 2"-800#, BOILERS	1.00
118394	VALVE, CHECK BRONZE 1-1/2"	2.00
118395	PROBE, BOILER 36"	2.00
118396	THERMOCOUPLE, AIR HEATER	1.00
118397	TRANSDUCER, E-P, INPUT 4-20MA, OUTPUT 3-15PSI	1.00
118398	DRIVE, WOODS	0.00
118399	BUSHING, TAPER-LOCK DODGE, TRAVELING GRATE	6.00
118400	BUSHING, TAPER-LOCK, TRAVELING GRATE	1.00
118401	BUSHING, TAPER-LOCK, TRAVELING GRATE	4.00
118402	BUSHING, TAPER-LOCK DODGE, TRAVELING GRATE	2.00
118403	BAR, GRATE LEFT-HANDED, TRAVELING GRATE CASTING	0.00
118404	PIN, GRATE BAR, TRAVELING GRATE CASTING	0.00
118405	BAR, GRATE RIGHT-HANDED, TRAVELING GRATE CASTING	5.00
118406	HANDLE, DOOR, TRAVELING GRATE	0.00
118407	PIN	47.00
118408	ROLLER	93.00
118409	SPOOL, GUIDE ROLLER	91.00
118410	ASSEMBLY, GRATE BAR;W/O REMOVABLE KEYS	27.00
118411	BAR, ASSEMBLED GRATE (LH)	0.00
118412	BAR, ASSEMBLED GRATE (RH)	0.00
118413	PULLEY, BEARING, MARTIN, TRAVELING GRATE	0.00
118414	BOLT,	210.00
118415	BOLT, 1/2"-13 X 2-1/2" 18-8 SS, T GRATE	200.00
118416	NUT, 1/2"-13 18-8 SS, T GRATE AND ARMOR BLOCK	69.00
118417	WASHER, LOCK, 1/2" 18-8 SS, T GRATE AND ARMOR BLOCK	500.00
118418	BOLT, 1/2"-13 X 5-1/2" 18-8 SS, T GRATE	250.00
118419	BEARING, SKF, TRAVELING GRATE	3.00
118420	BEARING, SKF, TRAVELING GRATE	11.00
118421	TUBE, WATERWALL	4.00
118422	PROBE, MILTRONICS, TR GRATE	0.00

118423	INSERT, ATROFLEX COUPLING, TRAVELING GRATE	1.00
118424	COUPLING, HALF, 110MM, TRAVELING GRATE GEARBOX	1.00
118425	COUPLING, A&R ENGINEERED, TRAVELING GRATE	0.00
118426	RING, ATROFLEX COUPLING,	1.00
118427	SEAL, 24" LEDGE PLATE	2.00
118428	PLATE, 24" SIDE WALL LEDGE	2.00
118430	BAR, SPACER, LH REAR GRATE	0.00
118432	REDUCER, GEAR US MOTOR, TRAVELING GRATE	1.00
118433	SEAL, 36" LEDGE PLATE	0.00
118434	36" OVERHANGING LEDGE PLATE	0.00
118435	42" LEDGE PLATE SEAL	2.00
118436	SEAL, OIL CHICAGO RAWHIDE, TRAVELING GRATE	4.00
118437	SPROCKET, TRAVELING GRATES	3.00
118438	BLOCK, ARMOR HH SS, TRAVELING GRATE	11.00
118439	BLOCK, ARMOR HH SS, TRAVELING GRATE	4.00
118440	BLOCK, ARMOR HH SS, TRAVELING GRATE	0.00
118441	BLOCK, ARMOR HH SS, TRAVELING GRATE	0.00
118442	BLOCK, ARMOR HH SS, TRAVELING GRATE	0.00
118443	BLOCK, ARMOR HH SS, TRAVELING GRATE	0.00
118444	BLOCK, ARMOR HH SS, TRAVELING GRATE	0.00
118445	BAR, ARMOR BLOCK BACKING	30.00
118446	BAR, ARMOR BLOCK BACKING	30.00
118447	COUPLING, ROTORY, TRAVELING GRATE	1.00
118448	CAP, TRUNION BODY, TRAVELING GRATE	1.00
118449	INSERT, L95, TRAVELING GRATE	4.00
118450	GEARBOX, FALK, TRAVELING GRATE	1.00
118451	MOTOR, 1 HP, TRAVELING GRATE	1.00
118452	FRAME, SAF-T-EYE, TRAVELING GRATE	4.00
118453	PORTS, SAF-T-EYE, TRAVELING GRATE	9.00
118454	LENS, QUARTZ SAF-T-EYE, TRAVELING GRATE	4.00



118455	BEARING, REXNORD	1.00
118456	MOTOR, WEG 56356, TRAVELING GRATE	1.00
118457	LINK, CENTER, TRAVELING GRATE CASTING, NEW MATERIAL	67.00
118458	LINK, FILLER LEFT-HANDED, TRAVELING GRATE CASTING	107.00
118459	LINK, LOCKING LEFT-HAND, TRAVELING GRATE CASTING	32.00
118460	LINK, REGULAR LEFT-HANDED, TRAVELING GRATE CASTING	3.00
118461	LINK, SIDE LEFT HANDED, TRAVELING GRATE CASTING	0.00
118462	LINK, SIDE LEFT-HANDED, TRAVELING GRATE CASTING	48.00
118463	LINK, FILLER RIGHT-HANDED, TRAVELING GRATE CASTING	132.00
118464	LINK, LOCKING RIGHT-HANDED, TRAVELING GRATE CASTING	0.00
118465	LINK, RIGHT-HANDED, TRAVELING GRATE	0.00
118466	LINK, SIDE RIGHT-HANDED, TRAVELING GRATE CASTING	40.00
118467	ROLLER, GUIDE, TRAVELING GRATE CASTING	41.00
118468	ROLLER, TRAVELING GRATE CASTING	0.00
118469	TUBE, FOR ARI PN T-50829N-36FK9ACA-4	1.00
118470	SHIELD, TUBE, 2" 210DEG WRAP 10GA 304SS 8' LENGTH	0.00
118471	SHIELD, 2" 210DEG WRAP 10GA 304SS 4' BELLED ONE END	232.00
118476	BEARING, FAG	2.00
118477	BEARING, LINKBELT	1.00
118524	ADAPTER	5.00
118525	MIRROR	1.00
118528	COUPLER, MALE, CAPACITY	0.00
118529	FITTING, STRAIGHT, CAPACITY	1.00
118530	HOSE, HYDRAULIC, CAPACITY YARD TRUCK	1.00
118531	VALVE, 1" BALL	1.00
118574	BOARD, CONTROL, MOORE	0.00
118575	POWER SUPPLY, ROSEMOUNT	0.00
118576	BOARD, CONTROL, MOORE PRODUCTS	1.00

118577	CONTROLLER, MOORE PRODUCTS	1.00
118578	MONITOR, B&W 12", COMBUSTORS	1.00
118579	MONITOR, 14" COLOR, CONTROL BOARD	1.00
118580	PAPER, CHART RECORDER, CONTROL BOARD	8.00
118581	RELAY	6.00
118582	RELAY	6.00
118601	SEAL, MECHANICAL, CONDENSATE PUMPS	0.00
118602	MOTOR, 20HP, CONDINSATE	1.00
118603	SEAL, OIL CHICAGO RAWHIDE	1.00
118604	MOTOR, 7-1/2HP, BALTIMORE AIRCOIL	0.00
118605	MOTOR, CONDENSATE PUMPS	1.00
118629	FILTER, 5 MICRON PARKER, CEM SYSTEM	7.00
118639	METER, PANEL DIGITAL, CEM SYSTEM	0.00
118640	FILTER, 10 MICRON PARKER, CEM SYSTEM	3.00
118641	INTERFACE, AB ETHERNET, CEM SYSTEM	1.00
118706	HEATER, RTD, GAS ANAYLIZER, CEM SYSTEM	0.00
118717	CONNECTOR, CEM SYSTEM	0.00
118784	GAUGE, VACUUM 2-1/2" DIAL, CEM SYSTEM	0.00
118785	GAUGE, VACUUM 4-1/2", CEM SYSTEM	0.00
118831	O-RING, METAL, CEM SYSTEM	0.00
118832	VALVE, SOLINOID 2-WAY, CEM SYSTEM	4.00
118833	VALVE, SOLINOID 3-WAY, CEM SYSTEM	4.00
118834	ASSEMBLY, LAMP HOLDER, CEM SYSTEM	0.00
118835	TUBING, TEFLON, CEM SYSTEM	0.00
118836	FILTER, 5UM, CEM SYSTEM	1.00
118837	FILTER, GRADE 6, CEM SYSTEM	1.00
118838	FILTER, 5UM PARTICULATE, CEM SYSTEM	1.00
118839	RELAY, K10P, CEM	0.00
118840	ASSEMBLY, FURNACE WDG3 ASSM, CEM SYSTEM	0.00
118841	CELL, CERAMIC O2 6", 1/4" W/O-RING, CEM SYSTEM	0.00

118842	CELL, O2, CEM SYSTEM	0.00
118843	MODULE, TEMP. CONTROL, CEM SYSTEM	0.00
118844	KIT, SM SPARE PARTS, CEM SYSTEM	0.00
118845	CONTROL, AUTO TUNING, CEM SYSTEM	0.00
118846	CARD, DRIVE MOTOR/ SIGNAL PROCESS, CEM SYSTEM	0.00
118847	CONTROL, HEAT LPM04, CEM SYSTEM	0.00
118848	ASSEMBLY, SIGNAL OUTPUT LPM06, CEM SYSTEM	0.00
118849	DEVICE, DIGITAL I/O LPM 08, CEM SYSTEM	0.00
118850	DISPLAY, LED LPM09, CEM SYSTEM	0.00
118851	DEVICE, POWER-ON LPM10, CEM SYSTEM	0.00
118852	BOARD, ANALOG, CEM SYSTEM	0.00
118853	BOARD, LPM21, CEM SYSTEM	0.00
118854	DEVICE, POWER-ON NEW VERSION, CEM SYSTEM	0.00
118855	WHEEL, CHOPPER STEPPER MOTOR, CEM SYSTEM	0.00
118856	INSERT, IR LIGHT SOURCE, CEM SYSTEM	0.00
118857	CELL, SENSOR TEMP. PT100, CEM SYSTEM	0.00
118858	GASKET, WINDOW 32MM KALREZ, CEM SYSTEM	0.00
118859	O-RING, VITON, CEM SYSTEM	0.00
118860	WINDOW, REPLACEMENT BAF2, CEM SYSTEM	0.00
118861	MOTOR, STEPPER, CEM SYSTEM	0.00
118862	WHEEL, CHOPPER STEPPER WHEEL, CEM SYSTEM	0.00
118863	GASKET, LEAD RETAINING, CEM SYSTEM	0.00
118864	FILTER, SINTERED INLET 10MIC, CEM SYSTEM	0.00
118865	HEATER, RTD, 100OHM, CEM SYSTEM	0.00
118866	CELL, CEM SYSTEM	1.00
118867	HEATER, (120V), CEM SYSTEM	1.00
118868	CARD, COMBI-ALARM(FLOW&LIQUID), CEM SYSTEM	0.00
118869	HEATER, RTD, HEATED SAMPLE LINE, CEM SYSTEM	0.00

118870	VALVE, CHECK, CEM SYSTEM	0.00
118871	UNION, BULKHEAD PVDF 1/4", CEM SYSTEM	0.00
118872	HEAT EXCHANGER, CEM SYSTEM	0.00
118873	CAP, HEAT EXCHANGE GLT8, CEM SYSTEM	0.00
118874	CAP, RETAINING RING 8MM PTFE GL18, CEM SYSTEM	0.00
118875	CONNECTOR, ADAPTER PVDF 1/4 STDGL18, CEM SYSTEM	0.00
118876	CAP, HEAT EXCHANGE GL25, CEM SYSTEM	0.00
118877	RING, RETAINING 10MM PTFE GL25 CAP, CEM SYSTEM	0.00
118878	CONNECTOR, ADAPTER PVDF STR 1/4 GL25, CEM SYSTEM	0.00
118879	PUMP, COMPLETE COLD DRY, CEM SYSTEM	0.00
118880	DIAPHRAGM, CEM SYSTEM	0.00
118881	VALVE, I/O TEFLON, CEM SYSTEM	0.00
118882	DIAPHRAGM, TEFLON, CEM SYSTEM	0.00
118883	PLATE, FLAPPER VALVE TEFLON, CEM SYSTEM	0.00
118884	SENSOR, TEMP. PT100, CEM SYSTEM	0.00
118885	ELEMENT, HEATER, CEM SYSTEM	0.00
118886	PUMP, PERISTALTIC 115V, CEM SYSTEM	0.00
118887	TUBING, PUMP PERISTALTIC SR25, CEM SYSTEM	0.00
118888	SENSOR, LIQUID, CEM	0.00
118889	ALARM, CEM	0.00
118890	CARD, CONTROL TEMP HC100, CEM SYSTEM	0.00
118891	POWER SUPPLY, CEM SYSTEM	0.00
118892	FILTER, INLET, CEM SYSTEM	0.00
118893	FLOWMETER, CEM CAL SAMPLE GAS	0.00
118894	TUBE, FLOWMETER 250 L/H, CEM SYSTEM	0.00
118895	TUBE, FLOWMETER 500 L/H, CEM SYSTEM	0.00
118896	O-RING, HEATED FLOWMETER, CEM SYSTEM	0.00
118897	VALVE, BELLOWS COMPLETE, CEM SYSTEM	0.00

118898	TIP, BELLOWS VALVE, CEM SYSTEM	0.00
118899	SPRING, BELLOWS VALVE, CEM SYSTEM	0.00
118900	O-RING, TEFLON 28X2MM, CEM SYSTEM	0.00
118901	SENSOR, TEMP, CEM SYSTEM	0.00
118902	GASKET, FILTER BODY, CEM SYSTEM	0.00
118903	FILTER, OUTER, CEM SYSTEM	4.00
118904	FILTER, INNER PROBE, CEM SYSTEM	0.00
118905	TUBE, SAMPLE, CEM SYSTEM	1.00
118906	PUMP, COMPLETE HOT WET, CEM SYSTEM	0.00
118907	STABLIZER POWER SUPPLY	1.00
118908	POWER SUPPLY, CEM SYSTEM	1.00
118909	BOARD.MOTHER, CEM SYSTEM	1.00
118910	RS41 BOARD, CEM SYSTEM	1.00
118911	CARD, SG2M ELECTRONICS CARD, CEM SYSTEM	1.00
118912	BOARD, EQUIPPED, CEM SYSTEM	1.00
118913	BOARD, MAIN CONTROL, CEM SYSTEM	1.00
118914	SENSOR, TEMP W/CABLE, CEM SYSTEM	1.00
118915	IR MOTOR WITH CABLE, CEM SYSTEM	1.00
118916	SENSOR, W/CABLE, CEM SYSTEM	1.00
118917	FORK, OPTICAL, WIRED, CEM SYSTEM	1.00
118918	VALVE, TYPE 127T, CEM SYSTEM	1.00
118919	VALVE, CEM SYSTEM	1.00
118921	FILTER, SS INLINE, CEM SYSTEM	0.00
118922	SENSOR, PRESSURE, 350MB, CEM SYSTEM	1.00
118923	FLOWMETER, 30-300NI/H, CEM SYSTEM	1.00
118924	FILTER	0.00
118925	FILTER, CERAMIC, AIR DRYERS	0.00
118926	DRYER, PERMEATION, 288" (6M)	1.00
118927	GASKET, FLANGE, CEM SYSTEM	0.00
118928	BELT, TRANSMISSION, CEM SYSTEM	2.00
118929	O-RING, DIAM12, CEM SYSTEM	6.00
118930	O-RING, DIAM15, CEM SYSTEM	10.00
118931	ORING, FILTER DOOR, CEM SYSTEM	0.00
118932	CARD, HEAT CONTROL, CEM	0.00
118933	DISPLAY, LCD, CEM SYSTEM	1.00
118934	ASSEMBLY, INLET TUBE	0.00

118935	BLOWER, LAND COMBUSTION	0.00
118936	RELAY, MERCURY, CEM SYSTEM	0.00
118937	SWITCH, LINKYS EZXS55W, CEM SYSTEM	1.00
118938	DETECTOR, IR WIRED, CEM SYSTEM	1.00
118939	POWER SUPPLY, CEM SYSTEM	0.00
118940	EJECTOR, EQUIPPED	1.00
118941	SENSOR, EQUIPPED	1.00
118942	KIT, REPLACEMENT, CEM SYSTEM	0.00
118943	FUSE KIT, CEM SYSTEM	1.00
118944	SOURCE, IR W/ CABLE, CEM SYSTEM	1.00
118945	HEATER, CEM SYSTEM	1.00
118946	TEMPERATURE REGULATOR, CEM SYSTEM	0.00
118947	CONTROLLER, TEMP 100-240VAC, CEM	2.00
118948	PUMP, SUCTION W/ CABLE, CEM SYSTEM	1.00
118949	KIT, MAINTENANCE	1.00
118951	BEARING	0.00
118952	HANGER BEARING	0.00
118955	PROBE, PH/ORP, CLEARWELL TANK	1.00
118956	HUB, 1-3/8" BORE, CLEARWELL TANK	4.00
118957	HUB, STD. 1-1/8" BORE, CLEARWELL PUMPS	0.00
118958	NUT, HEX IMPELLER 304SS, CLEARWELL&TRANSFER PUMPS	4.00
118959	KEY, SQ, CLEARWELL&TRANSFER PUMPS	4.00
118960	FACE, STATIONARY MS, CLEARWELL&TRANSFER PUMPS	1.00
118961	FACE, ROTARY MECH. SEAL, CLEARWELL&TRANSFER PUMPS	0.00
118962	FACE, STATIONARY MECH. SEAL, CLEARWELL&TRANSFER PUMP	0.00
118963	CARTRIDGE, MOUNTED SINGLE SEAL	0.00
118964	CARTRIDGE, SEAL 155-14 REBIULD	0.00
118965	O-RING, CLEARWELL&TRANSFER PUMPS	3.00
118966	SLEEVE, SHAFT, CLEARWELL PUMPS	0.00
118967	SLEEVE, CLEARWELL&TRANSFER PUMPS	4.00
118968	O-RING, IMPELLER, CLEARWELL TRANSFER PUMPS	5.00
118969	ELEMENT, HI-SPEED, CLEARWELL TANK	3.00

118970	METER, LEVEL ALARM, CLEARWELL TANK	1.00
118971	KIT, REBUILD 3196MTX PUMPS	1.00
121219	BELT, GOODYEAR, COMPRESSOR ROOM A/C	7.00
121230	CAP, RETAINING	0.00
121238	FILTER, 16 X 25 X 1	30.00
121297	COUPLING, SHROUDS AND BOLT KITS	1.00
121565	VALVE, SPRAY, 316SS, DA TANK	3.00
121566	ASSEMBLY, TRAY 16GA. 37"LNG, DA TANK	7.00
121570	REGULATOR, PRES/PRES, FISHER	0.00
121668	SPRING, RELIEF VALVE, NEPTUNE PUMPS	0.00
121669	SPRING, RELIEF VALVE (HP), NEPTUNE PUMPS	0.00
121670	DIAPHRAGM, DEMIN VALVES	0.00
121671	SPRING, 1300, DEMIN SYSTEM	0.00
121672	SPRING, 525, DEMIN SYSTEM	0.00
121673	SPRING, 850, DEMIN SYSTEM	0.00
121674	DIAPHRAGM, OPERATING #1, DEMIN SYSTEM	0.00
121675	DIAPHRAGM, OPERATING #2, DEMIN SYSTEM	0.00
121676	DIAPHRAGM, VITON B2 3", DEMIN SYSTEM	0.00
121677	VALVE, SAUNDERS 1"	0.00
121678	VALVE, SAUNDERS 2"	0.00
121679	VALVE, SAUNDERS 3"	0.00
121681	CABLE, TRANSMITTER	0.00
121682	CABLE, TRANSMITTER	0.00
121683	RECEPTACLE, CUTLER HAMMER	6.00
121684	RECEPTACLE, CUTLER HAMMER	5.00
121685	BODY, CUTLER HAMMER	1.00
121686	BODY, CUTLER HAMMER	1.00
121689	FIXTURE, WESTINGHOUSE	0.00
121690	BULB, SYLVANIA	0.00
121691	BULB, SYLVANIA	40.00
121692	LIGHT, PAR 20	16.00
121693	LAMP, CONTROL ROOM PANEL	100.00
121694	BULB, GE	80.00
121695	RELAY, CF-1, WESTINGHOUSE	0.00
121696	BULB, PHILLIPS	96.00
121697	SPLICE, 3M MOTOR LEAD PIGTAIL	6.00
121698	LUG	0.00

121699	LUG	0.00
121700	LUG	0.00
121701	LUG	0.00
121702	LAMP, CONTROL ROOM PANEL	40.00
121703	BULB, #949 FOR 800T-QT10 BUSHBUTTON	66.00
121704	GLOBE, BLUE, PLANT LIGHTING	12.00
121705	MOTOR, 3HP, FLYASH BELT	1.00
121706	GLOBE, HAZLUX, PLANT LIGHTING	0.00
121707	SHAFT, HOLLOW, EQ TANK	1.00
121708	SEAL, OIL, EQ TANK	1.00
121709	RING, RETAINING, EQ TANK	1.00
121710	SPACER, SHAFT, EQ TANK	1.00
121711	CONE, DRIVING, EQ TANK	8.00
121712	DISC, FRICTION, EQ TANK	3.00
121713	SHAFT, OUTPUT COMPLETE, EQ TANK	1.00
121714	HOUSING, DISC, EQ TANK	0.00
121715	GEAR, 12MM 40-90, EQ TANK	1.00
121716	GEAR, EQ TANK	1.00
121717	BEARING, EQ TANK	4.00
121718	BEARING, EQ TANK	1.00
121719	BEARING, EQ TANK	2.00
121720	INSERT, COUPLING, EQ TANK	2.00
121721	SHAFT, PINION SM, EQ TANK	1.00
121722	GEAR, EQ TANK	1.00
121723	GEAR, EQ TANK	1.00
121724	BEARING, EQ TANK	2.00
121725	SENSOR, CARBON MONOXIDE	0.00
121729	LINK, CONNECTING SIZE 120	0.00
121730	LINK, OFFSET SIZE 120	1.00
121745	HATCH, INSPECTION, SCREW CONVEYORS	1.00
121748	BUSHING, A MODE CONDITIONER	0.00
121749	PULLEY, A MODE CONDITIONER	0.00
121750	PULLEY, A MODE CONDITIONER	0.00
121751	BUSHING, A MODE CONDITIONER	0.00
121752	BUSHING, TAPER LOCK 1-1/4", ASH CONDITIONERS	2.00
121753	BUSHING, SDX1-1/8	0.00
121754	BUSHING, DODGE, FLYASH CONVEYORS	0.00
121755	BEARING, PILLOW BLOCK 1-15/16"	1.00
121756	BEARING, HEAD, BOTTOM ASH BELT	2.00
121757	BEARING, DODGE 2-7/16 4BOLT FLANGE, SH SCREW	0.00



121758	BEARING, DODGE, FLYASH SCREW	0.00
121759	HANGER, BEARING, ECON. SCREW CONVEYORS	1.00
121760	HANGER, BEARING GREASABLE, ECON SCREW CONV.	1.00
121761	HANGER, BEARING, MARTIN, ECONOMISER SCREW 3- 7/16	1.00
121762	SCREW, 11'7" X12"DIA, SCREW CONVEYORS	0.00
121763	LINK, CONNECTING, FLYASH RETURN CONVEYOR DRIVE CHAIN	0.00
121764	LINK, OFFSET, FLYASH RETURN CONVEYORS DRIVE CHAIN	0.00
121765	SPROCKET, FLYASH RETURN CONVEYORS DRIVE CHAIN	0.00
121766	SPROCKET, FLYASH RETURN CONVEYORS DRIVEN CHAIN	0.00
121767	CHAIN, FLYASH RETURN CONVEYOR DRIVE	0.00
121768	BEARING, ROLLER TAPERED TIMKEN, FA CROSS CONVEYOR	5.00
121769	RACE, BEARING TIMKEN, FLY ASH CROSS CONVEYOR	6.00
121770	VALVE, ROTARY, SUPERHEATER SCREW CONVEYOR	0.00
121771	PULLEY, DODGE, FLYASH CONVEYORS	0.00
121773	CYLINDER, FLYASH DIVERter GATES	1.00
121774	INSERT, BEARING SEALMASTER, ROTARY AIRLOCKS	2.00
121778	CONDUIT, SENSING ELEMENT	1.00
121779	BELT, GOODYEAR, FLY ASH CONDITIONER	4.00
121780	PULLEY, BEARING, MARTIN, FLYASH CONVEYORS	1.00
121781	CHAIN, ROLLER SIZE 40, B MODE	0.70
121782	CHAIN, ROLLER, ANSI SIZE 80	1.00
121783	NOZZLE, ASH TECH CONDITIONER	0.00
121785	ASSEMBLY, ADAPTER DODGE, ECON. SCREW CONVEYORS	1.00
121786	MOUNT, MOTOR DODGE, FLY ASH SCREW CONVEYORS	1.00
121787	SHAFT, END, ECON. SCREW CONVEYOR	1.00
121788	SHAFT, DODGE 2" FA CONVEYORS	2.00

121789	MOTOR, 5HP BALDOR, A-MODE ROTARY VALVE	1.00
121790	KIT, CABLE END TERMINATION, DREXELBROOK	6.00
121791	BELT, A MODE CONDITIONER	7.00
121792	BELT, GOODYEAR, ASH TECH CONDITIONER	3.00
121793	CHASSIS, DREXELBROOK, FLYASH SYSTEM	1.00
121794	TRANSMITTER	1.00
121795	PULLEY, 18" SINGLE "B" GROOVE	1.00
121796	CHAIN, ROLLER SIZE 50	20.00
121797	LINK, SIZE 40 CONNECTING	1.00
121798	LINK, SIZE 40 OFFSET	6.00
121799	SPROCKET, ROTARY VALVES	1.00
121800	LINK, MASTER 60RIV, LANE ASH CONDITIONER	7.00
121801	LINK, OFFSET 60RIV, LANE ASH CONDITIONER	4.00
121802	CHAIN, ROLLER SIZE 60	10.00
121803	SPROCKET, ROTARY VALVES	1.00
121804	LINK, CONNECTING RS880, ASH TECH CONDITIONER	6.00
121805	LINK, CONNECTING SIZE 80	2.00
121806	LINK, OFFSET SIZE 80	3.00
121807	BUSHING, BEARING, MARTIN, FLYASH CONVEYORS	1.00
121808	ELEMENT, SENSOR, FLY ASH CONDITIONER	1.00
121809	PROBE, HI-HI BIN ALARM A MODE	1.00
121810	COUPLER, TAPERLOCK, REXNORD	2.00
121811	COUPLER, TAPERLOCK, REXNORD	2.00
121812	ALARM, MOTION FAILURE	1.00
121813	SWITCH, ZERO SPEED, FLY ASH CONDITIONERS	0.00
121814	VALVE, AIR THREE-WAY, ASH CONDITIONERS	1.00
121815	BUSHING, BEARING, MARTIN 3-1/2" QD, ECON. SCREW CONVEYOR	2.00
121816	BELT, LANE ASH CONDITIONER	4.00
121817	BELT, LANE ASH CONDITIONER	6.00
121818	BELT, SUPERHEATER CONVEYORS	13.00
121819	BELT, FLY ASH CROSS SCREW CONVEYOR	2.00
121820	BELT, FLY ASH CROSSOVER SCREW CONVEYOR	4.00

121821	BELT, GOODYEAR, FLY ASH CROSS FEED CONVEYOR	1.00
121822	SHAFT, COUPLING, 3", SCREW CONVEYORS	1.00
121823	SHAFT, CONNECTING, SCREW CONVEYORS	1.00
121824	BEARING, MARTIN END SHAFT 2"	2.00
121825	SHAFT, END 3", SCREW CONVEYORS	1.00
121826	BEARING, ECON. SCREW CONVEYORS	2.00
121827	BEARING, HANGER, FLYASH CROSS CONVEYORS	4.00
121828	BEARING, HANGER GREASABLE, SUPERHEATER SCREW	1.00
121829	BEARING, HANGER, GREASABLE SH SCREW	2.00
121830	BEARING, 3" HANGER, CROSS SCREW	6.00
121831	BEARING, HANGER 3-7/16"	1.00
121832	BEARING, MARTIN HANGER SHAFT 2"	2.00
121833	SWITCH, SPEED ZERO, FLY ASH CONDITIONER	0.00
121834	COLLAR	0.00
121835	BEARING	2.00
121836	MOTOR, 1.5HP, B MODE CONDITIONER	1.00
121837	MOTOR, BALDOR 5HP	1.00
121841	BEARING, SEALMASTER	2.00
121842	SPACER, OMEGA 5,	1.00
121843	SHAFT, END 2-7/16", ECON. SCREW CONVEYOR	1.00
121844	SHAFT, CONNECTOR, ECON. SCREW CONVEYOR	6.00
121845	BEARING, LINKBELT 3" , SUPERHEATER SCREW	2.00
121846	VARIATOR, BEIER, FLYASH RETURN CONVEYORS	0.00
121847	COUPLING, LOVEJOY, A MODE ROTARY VALVE	0.00
121848	MOTOR, LINCOLN 2HP, SUPERHEATER SCREW	2.00
121849	RACE, BEARING TIMKEN, FLY ASH CROSS CONVEYOR	0.00
121850	BEARING, ROLLER TAPERED TIMKEN, FA CROSS CONVEYOR	0.00
121851	RACE, BEARING TIMKEN, FLY ASH CROSS CONVEYOR	6.00

121852	BEARING, ROLLER TAPERED TIMKEN, FA CROSS CONVEYOR	8.00
121853	SPROCKET, HEAD 4-TOOTH, FLY ASH DRAG CHAIN CONVEYOR	2.00
121854	SPROCKET, TAIL 4-TOOTH, FLY ASH DRAG CHAIN CONVEYORS	2.00
121855	BEARING, SEALMASTER, FLYASH CROSS CONVEYOR	1.00
121856	ACTUATOR, AIR SPRING RETURN, FLYASH SYSTEM	1.00
121857	BEARING, SUPERPACK, DRIVE END PLATE (SH / EC) SEAL ONLY	1.00
121858	MOTOR, ROTARY VALVES 2HP	0.00
121859	MOTOR, RELIANCE, A MODE ROTARY VALVE	0.00
121860	MOTOR, 3/4HP, LANE CONDITIONER	0.00
121861	MOTOR, B MODE 1-1/2HP 56HC FRAME	1.00
121862	PADDLE, B MODE CONDITIONER (SET OF 27 PCS)	0.00
121863	PADDLE, ASH	5.00
121864	BEARING, LINKBELT, LANE ASH CONDITIONER	1.00
121865	BEARING, PILLOW BLOCK 2-7/16, LANE, FLYASH BELT	1.00
121866	BEARING, PILLOW BLOCK, ASH TECH CONDITIONER	2.00
121867	BUSHING, QD 2" BORE	2.00
121868	LINK, MASTER RC60 CHAIN, LIME/PRECOAT SYSTEM	24.00
121900	BEARING, SEALMASTER, ASH CONDITIONERS	4.00
121901	BEARING, SEALMASTER, ECON. SCREW CONVEYOR	1.00
121902	SHAFT, LH, LANE CONDITIONER	0.00
121903	BUSHING, 1-1/8" BORE, ASH CONDITIONER	2.00
121904	BUSHING, BEARING, MARTIN 7/8" BORE	3.00
121905	DRIVE, RELIANCE, A MODE ASH CONDITIONER	1.00
121947	METER, FLOW	0.00
121948	CAP, END W/GUIDE, WES-PHIX SYSTEM	0.00
121949	CAP, END W/O GUIDE, WES-PHIX SYSTEM	0.00

121950	RING, RETAINING END CAP, WES-PHIX SYSTEM	0.00
121951	GASKET, AIR VALVE, WES-PHIX SYSTEM	0.00
121952	O-RING, END CAP, WES-PHIX SYSTEM	0.00
121953	SHAFT, WES-PHIX SYSTEM	0.00
121954	O-RING, VALVE SEAT, WES-PHIX SYSTEM	0.00
121955	VALVE, TEFLON BALL, WES-PHIX SYSTEM	0.00
121956	O-RING, CENTER BLOCK, WES-PHIX SYSTEM	0.00
121957	GASKET, MUFFLER PLATE, WES-PHIX SYSTEM	0.00
121958	DIAPHRAGM, TEFLON, WES-PHIX SYSTEM	0.00
121959	MUFFLER, AIR EXHAUST, WES-PHIX SYSTEM	0.00
121960	KIT, COUPLING, BOLT, ELEC.FC PUMPS	2.00
121961	RING, RETAINING EXTENSION, ELEC. FORCE CIRC. PUMPS	0.00
121962	RING, RETAINING RADIAL BRG., ELEC. FORCE CIRC. PUMPS	8.00
121963	O-RING, ELEC. FORCE CIRC. PUMPS	0.00
121964	GASKET, BEARING COVER	3.00
121965	KIT, COUPLER SHIM, FC PUMPS	4.00
121966	SLEEVE, SPACER, DBL. SUCT., ELEC. FORCE CIRC. PUMPS	0.00
121967	RETAINER, OIL RING, THR., ELEC. FORCE CIRC. PUMPS	0.00
121968	RING, RETAINING RADIAL, ELEC. FORCE CIRC. PUMPS	1.00
121969	BUSHING, THROAT, ELEC. FORCE CIRC. PUMPS	1.00
121970	BUSHING, THROAT, ELEC. FORCE CIRC. PUMPS	0.00
121971	NUT, IMPELLER, ELEC. FORCE CIRC. PUMPS	0.00
121972	DEFLECTOR, INBOARD END, FORCE CIRC. PUMPS	0.00
121973	DEFLECTOR, COUPLING, END, ELEC. FORCE CIRC. PUMPS	0.00
121974	RING, WEAR, IMPELLER CCW, ELEC. FORCE CIRC.	0.00

	PUMP	
121975	RING, WEAR, COVER, ELEC. FORCE CIRC. PUMPS	0.00
121976	RING, WEAR, IMPELLER, ELEC. FORCE CIRC. PUMPS	0.00
121977	RING, WEAR, COVER, ELEC. FORCE CIRC. PUMPS	0.00
121978	THERMOMETER, 1/2" 0-250 DEG., INSTRUMENTATION	0.00
121979	PLUG, SITE, FC PUMPS	6.00
121980	GAUGE, 3-D 0-15, ST FC PUMPS	0.00
121981	BEARING, SKF, FORCE CIRC. PUMPS	3.00
121982	PIN, SEAL HOUSING, ELEC. FORCE CIRC. PUMPS	0.00
121983	BUSHING, BRONZE, ELEC. FORCE CIRC. PUMPS	0.00
121984	RING, RETAINING SLINGER, ELEC. FORCE CIRC. PUMPS	2.00
121985	GASKET, SPIRAL WOUND, ELEC. FORCE CIRC. PUMP	1.00
121986	RING, SLINGER BRONZE OIL, ELEC. FORCE CIRC. PUMPS	1.00
121987	GLAND, MECH SEAL, FC PUMPS	0.00
121988	KIT, REBUILD, FC 155 SEAL	1.00
121989	O-RING, FORCE CIRCULATION PUMPS	0.00
121990	O-RING, FORCE CIRCULATION PUMPS	0.00
121991	O-RING, FORCE CIRCULATION PUMPS	2.00
121992	O-RING, REAR SEAL GLAND	4.00
121993	FACE, STATIONARY M.S., ELEC. FORCE CIRC. PUMP	0.00
121994	SLEEVE, SHAFT, ELECTRIC FC PUMP	0.00
121995	O-RING, FORCE CIRCULATION PUMPS	0.00
121996	MOTOR, MARATHON, FORCE CIRC PUMPS	1.00
121997	BEARING, SKF, ELEC. FORCE CIRC. PUMPS	4.00
121998	SEAL, MECHANICAL, FC PUMPS	0.00
121999	THERMOMETER, BI-METAL 3", ELEC. FORCE CIRC. PUMPS	0.00
122000	NUT, LOCKING, ELEC. FORCE CIRC. PUMPS	2.00
122101	WASHER, LOCK, FORCE CIRCULATION PUMPS	19.00
122128	NUT, CASTLE, P&H CRANES	12.00
122136	LEVER, OPERATING AB, CRANES	3.00

122137	ASSEMBLY, REACTOR TROLLEY, P&H CRANES	1.00
122138	ASSEMBLY, BRIDGE REACTOR, P&H CRANES	0.00
122139	GEARBOX, HOIST, P&H CRANES	1.00
122140	ASSEMBLY, LEFT HAND JOYSTICK	0.00
122141	ASSEMBLY, RIGHT HAND JOYSTICK	0.00
122142	BOARD, BRAKE, P&H CRANES	0.00
122143	BOARD, BRAKE, P&H CRANES	1.00
122144	SWITCH, CONTACTOR	0.00
122145	TRANSFORMER VARIABLE	0.00
122146	CAM, LIMIT AB, CRANES	3.00
122147	KIT, CONTACT, P&H CRANES	12.00
122148	SET, CONTACT, P&H CRANES	23.00
122149	KIT, CONTACT, P&H CRANES	12.00
122150	KIT, CONTACT, P&H CRANES	12.00
122151	BUSHING, BRONZE, P&H CRANES	2.00
122152	SHAFT, INTERMEDIATE, P&H CRANES	3.00
122153	SHAFT, 13SB, P&H CRANES	1.00
122154	SHAFT, 13SB, P&H CRANES	3.00
122155	SHAFT	0.00
122156	SHAFT, P&H CRANES	0.00
122158	PIN, CLOSING LINE BECKETT	6.00
122159	FILTER, 12 X 12 X 1	0.00
122160	WHEEL, BRAKE 13" P&H CRANES	1.00
122161	WHEEL, BRAKE, 10" P&H CRANES	1.00
122162	ROLLER, 13SB, P&H CRANES	1.00
122163	BRAKE, COMPLETE	0.00
122164	CAM FOLLOWER	0.00
122165	CAM FOLLOWER	0.00
122166	CAM FOLLOWER	0.00
122167	CABLE, HOLDING LINE, WIRE ROPE, CRANES	8.00
122168	GEARBOX, TYPE 404H	0.00
122169	HOLDER, SHOE, P&H CRANES	3.00
122170	BLOCK, PIVOT, P&H CRANES	2.00
122171	HOUSING, END WALL SPACER, P&H CRANES	0.00
122172	LINK, PIVOT, P&H CRANES	3.00
122173	BAR, P&H CRANES	4.00
122174	BAR, P&H CRANES	5.00
122175	HOUSING, SPACER SIDEWALL, P&H CRANES	4.00
122176	SPRING, P&H CRANES	0.00
122177	WASHER, SPRING	12.00
122178	WASHER, BELLVILLE 5/8"ID, P&H CRANES	17.00

122179	SPRING, P&H CRANES	1.00
122180	SPRING	3.00
122181	SPRING, P&H CRANES	0.00
122182	SPRING	0.00
122183	SPRING, BRAKE ASSEMBLY, CRANES	1.00
122184	SPRING, P&H CRANES	5.00
122185	SPRING, END STOP, P&H CRANES	8.00
122186	CABLE, CLOSING LINE, WIRE ROPE, CRANES	4.00
122187	CAM	0.00
122188	CAM, SPRING RETURN	0.00
122189	SPACER, ADJUSTMENT, P&H CRANES	8.00
122190	GUIDE, SPRING, P&H CRANES	1.00
122191	SPACER, P&H CRANES	13.00
122192	SPACER, P&H CRANES	8.00
122193	SEAT, TORQUE SPRING, P&H CRANES	2.00
122194	ARMATURE, SPACER, P&H CRANES	2.00
122195	SPACER, 10 SB	4.00
122196	SEAL, OIL, P&H CRANES	0.00
122197	SEAL, OIL, P&H CRANES	2.00
122198	SEAL, OIL, P&H CRANES	1.00
122199	COUPLING, SEMI FLEX, CRANE HOIST MOTOR	1.00
122200	COUPLING, TROLLEY, P&H CRANES	1.50
122201	COUPLING, BRIDGE GEARBOX TO MOTOR, P&H CRANES	0.00
122202	WASHER	3.00
122203	WASHER, LOCK, P&H CRANES	37.00
122204	RING, RETAINING	0.00
122205	RING, RETAINING, P&H CRANES	9.00
122206	COUPLING, P&H CRANES	6.00
122207	PIN, MOUNTING, P&H CRANES	3.00
122208	PIN	0.00
122209	SPRING, PIN, P&H CRANES	6.00
122210	PIN, ROLL	2.00
122211	PINION, P&H CRANES	0.00
122212	GEAR, P&H CRANES	0.00
122213	GEAR, INTERNAL, P&H CRANES	0.00
122214	SHAFT, P&H CRANES	0.00
122215	GEAR, DRUM, P&H CRANES	0.00
122216	GEAR, INTERMEDIATE, P&H CRANES	0.00
122217	HANDLE, GEAR, P&H CRANES	0.00
122218	GEAR, BEVEL	0.00



122219	RACK, ROUND, P&H CRANES	1.00
122220	GEAR, P&H CRANES	0.00
122221	GEAR, SPUR, CRANES	0.00
122222	BOLT, BASE FRICTION STOP, P&H CRANES	4.00
122223	BOLT, 13 SB, P&H CRANES	1.00
122224	ROD, BOLT, P&H CRANES	3.00
122225	BOLT, P&H CRANES	41.00
122226	BOLT, SHOE, P&H CRANES	8.00
122227	BOLT, 10SB	8.00
122228	NUT, LOCK, P&H CRANES	11.00
122229	SCREW, HX HD CAP, P&H CRANES	12.00
122230	ASSEMBLY, BOLT BRAKE, P&H CRANES	1.00
122231	SCREW, HX HD CAP, P&H CRANES	0.00
122232	NUT, HX, P&H CRANES	9.00
122233	NUT, CASTLE 10SB	6.00
122234	BOLT, P&H CRANES	3.00
122235	BOLT, P&H CRANES	8.00
122236	NUT, P&H CRANES	8.00
122237	NUT, TORQUE, P&H CRANES	7.00
122238	NUT, TORQUE, P&H CRANES	0.00
122239	NUT, CASTLE, P&H CRANES	16.00
122240	BEARING, TROLLEY GEAR CASE	4.00
122241	BEARING, SKF, P&H CRANES	0.00
122242	PIN, ROLLER, P&H CRANES	5.00
122243	PIN, ROLLER, P&H CRANES	8.00
122244	SEAL, OIL GARLOCK, P&H CRANES	4.00
122245	TROLLEY W/ SWIVEL, FESTOON, P&H CRANES	0.00
122246	TROLLEY, FESTOON, P&H CRANES	0.00
122247	TROLLEY, INTERMEDIATE, P&H CRANES	1.00
122248	TROLLEY, SWIVEL 2 TIER, P&H CRANES	3.00
122251	MOTOR, TROLLEY, P&H CRANES	0.00
122252	STOP, BRAKE ROD, P&H CRANES	3.00
122253	BOLT, PIVOT 10SB	0.00
122254	LATCH, P&H CRANES	7.00
122255	CLAMP, ROPE, P&H CRANES	0.00
122259	PLATE, DISC, P&H CRANES	1.00
122260	PLATE, SPACER, P&H CRANES	3.00
122261	MOTOR, BRIDGE, P&H CRANES	0.00
122262	STRIP, WEATHER, P&H CRANES	2.00
122263	CLIP, 3/4" CROSBY FORGED STEEL WIRE ROPE	0.00

122266	WASHER, BRAKE ASSEMBLY	11.00
122267	WASHER, P&H CRANES	54.00
122268	CONNECTOR, CHAIN THD, P&H CRANES	24.00
122269	LEAD, MOTOR, P&H CRANES	2.00
122270	KIT, CONTACT, P&H CRANES	8.00
122271	KIT, CONTACT, P&H CRANES	3.00
122272	MOTOR, HOIST, P&H CRANES	1.00
122273	O-RING, P&H CRANES	2.00
122274	O-RING, P&H CRANES	7.00
122275	O-RING, P&H CRANES	1.00
122276	COIL, P&H CRANES	6.00
122277	COIL, SHROUDED, P&H CRANES	4.00
122278	RELAY, THERMAL OVERLOAD	2.00
122279	STARTER, MAIN LINE, P&H CRANES	0.00
122280	RELAY, P&H CRANES	6.00
122281	CONTACT SET, NORMALLY OPEN	2.00
122282	KIT, AUX INTERLOCK FURNAS, P&H CRANES	4.00
122283	STARTER, P&H CRANES	0.00
122284	CONTACTOR, REVERSING SIZE 1, TROLLEY	0.00
122285	CONTACTOR, SIZE 2, BRIDGE	1.00
122286	CONTACTOR, SIZE 3 REVERSING ASSEMBLY	1.00
122287	CONTACT, OVERLOAD, HOIST, P&H CRANES	1.00
122288	RELAY, CONTACTOR, P&H CRANES	1.00
122289	HEATER, TROLLEY	0.00
122290	FILTER, 12X12X1, CRANE CAB	24.00
122291	WASHER, LOCK	3.00
122292	BOX, TERMINAL, P&H CRANES	1.00
122293	BUSHING	0.00
122294	NUT, CASTLE, P&H CRANES	10.00
122295	CAM LEVER	0.00
122296	LINK, P&H CRANES	1.00
122297	LINK, P&H CRANES	0.00
122298	LINK, LH, P&H CRANES	1.00
122299	LINK, RH, P&H CRANES	1.00
122300	LATCH LEVER	0.00
122301	LEVER, FORK	0.00
122302	BRUSH, CARBON	6.00
122303	BRUSH, CARBON	3.00
122304	BRUSH, CARBON, P&H CRANES	12.00
122305	HOLDER, BRUSH, P&H CRANES	3.00

122306	O-RING, P&H CRANES	1.00
122307	COIL, P&H CRANES	0.00
122308	COIL, P&H CRANES	1.00
122309	TRANSFORMER, P&H, TROLLEY BRAKE	2.00
122310	TRANSFORMER, P&H CRANES	1.00
122311	RECTIFIER, BRIDGE & HOIST, P&H CRANES	2.00
122312	RECTIFIER, P&H CRANES	0.00
122313	SHUNT, AC, P&H CRANES	6.00
122314	TIP, CONTACT, P&H CRANES	12.00
122315	MODULE, MAG AMP FIRING CONTROL	1.00
122316	MODULE, BIAS	1.00
122317	MODULE, PLUGGING CONTROL	2.00
122318	BREAKER, CIRCUIT, P&H CRANES	1.00
122319	BREAKER, CIRCUIT, P&H CRANES	0.00
122320	BREAKER, CIRCUIT, P&H CRANES	1.00
122321	SWITCH, AB LIMIT, P&H CRANES	0.00
122322	GRID, RESISTOR HOIST	2.00
122323	RESISTOR, FORCING, CRANES	2.00
122324	ARMATURE, P&H CRANES	0.00
122325	ARMATURE, P&H CRANES	3.00
122326	CARRIAGE, FESTOON, P&H CRANES	0.00
122327	COVER, SPACER HOUSE, P&H CRANES	2.00
122328	CLAMP, CABLE, P&H CRANES	5.00
122329	SHOE, BRAKE 10", P&H CRANES	6.00
122330	ASSEMBLY, COLLAR SUB, P&H CRANES	0.00
122331	HOLDER, BRUSH, P&H CRANES	0.00
122332	ASSEMBLY, ARC CHUTE, P&H CRANES	6.00
122333	SPRING, RETURN	0.00
122334	POT, TROLLEY BRAKE	1.00
122335	SHOE, 13" RELIGNED, CRANES	6.00
122336	FOLLOWER, CAM, P&H CRANES	2.00
122337	SEAL, OIL CHICAGO RAWHIDE	3.00
122338	SEAL, OIL CHICAGO RAWHIDE, P&H CRANES	8.00
122339	SHAFT, UPPER BECKETT	3.00
122340	PIN, SPRING AB, CRANES	0.00
122341	HEATER, P&H CRANES	17.00
122342	SPRING, CRANES	0.00
122343	HEATER, HOIST OVERLOAD, P&H CRANES	6.00

122344	PIN, EQUALIZATION BAR, GRAPPLES	0.00
122345	KIT, FLANGE BOLT, FD FAN MOTOR	1.00
122346	BLOCK, RUBBER INSERT, FD FAN MOTOR	16.00
122347	BEARING, FD FAN MOTOR	1.00
122348	BEARING, FD FAN MOTOR	1.00
122349	FUSE, 400A FD FANS	1.00
122350	FUSE, 125A FD FANS	3.00
122351	BREAKER, CIRCUIT, P&H CRANES	1.00
122352	BEARING, LINKBELT, FD FANS	1.00
122353	MOTOR, FORCED DRAFT FANS	1.00
122354	BEARING, LINKBELT, FD FANS	2.00
122355	COUPLING, HALF, HOLSET PM6, FD FAN MOTOR	1.00
122356	MODULE, IGBT, 200HP, FD FANS	2.00
122357	CARD, GATE DRIVER, FD FANS	1.00
122358	BUSHING, SWIVEL SKF, P&H CRANES	4.00
122359	GRAPPLE, MACK	0.00
122360	BEARING, TORRINGTON, P&H CRANES	3.00
122361	RECTIFIER, P&H CRANES	1.00
122362	BEARING, MCGILL, P&H CRANES	1.00
122363	BEARING, MCGILL, P&H CRANES	7.00
122364	PIN, CLOSING LINE BECKETT	0.00
122365	PIN, HOLDING LINE BECKETT	0.00
122366	PIN, TYNE, GRAPPLE	0.00
122367	BEARING, PILLOW BLOCK LINK-BELT 2", P&H CRANES	4.00
122368	CONNECTOR, DEAD END WEDGE, MACK GRAPPLE	4.00
122369	WEDGE, HOLDING LINE CONNECTOR, MACK GRAPPLE	1.00
122370	DISC, BRAKE, P&H CRANES	2.00
122371	CONTACTOR, P&H CRANES	1.00
122372	MODULE, SCR, P&H CRANES	2.00
122373	LOCK, ROPE, P&H CRANES	4.00
122374	RESISTOR, TROLLEY P&H CRANES	1.00
122375	SHAFT, LIMIT AB, CRANES	6.00
122376	BELT, SCALEHOUSE ARM	1.00
122377	BELT, SCALEHOUSE ARM	2.00
122378	BOARD, FALCON, FRONT GATE	0.00
122379	KEYPAD, FRONT GATE	1.00
122380	RELAY, FRONT GATE	1.00
122381	BOARD, PC (OPEN, CLOSE, RUN)FRONT GATE	0.00

122410	FUSE	0.00
122411	FUSE	0.00
122533	HEATER	0.00
122534	HEATER	0.00
122535	PLUG	0.00
122536	BOOT	0.00
122537	PAN, BOTTOM ASH HEAD SECTION	0.00
122549	ADAPTER, STRAIGHT THREAD, HYDRAULIC SYSTEM	1.00
122562	STARTER, CITATION SERIES 2, HYDRAULIC SYSTEM	0.00
122567	FILTER, BREATHER, HYDRAULIC SKIDS	2.00
122568	POWER SUPPLY, F24-12-A, HYDRAULIC SYSTEM	2.00
122569	O-RING	12.00
122571	FITTING, HYDRAULIC HOSE	2.00
122572	REXROTH HYDRAULIC DIRECTIONAL VALVE	2.00
122573	VALVE, REXROTH	0.00
122574	VALVE, REXROTH DIRECTIONAL HYDRAULIC	1.00
122575	VALVE, HYD. REXROTH, HYD. SKID	0.00
122576	VALVE, REXROTH, HYD PUMPS	2.00
122577	VALVE, VICKERS	0.00
122578	GAUGE, 2-1/2" FACE 0-2000LB BOTTOM MOUNT	1.00
122579	FITTING, 1-1/4", HYDRAULIC SKIDS	1.00
122580	KIT, ELEMENT, HYD. SKIDS	2.00
122581	VALVE, CHECK ASSEMBLY, HYDRAULIC	0.00
122582	PUMP, HYDRAULIC LEFT SIDE	1.00
122583	PUMP, HYDRAULIC, RIGHT SIDE	1.00
122584	VALVE, VICKERS	1.00
122585	VALVE, VICKERS	1.00
122586	CARTRIDGE, CHECK VALVE, HYD. SKIDS	1.00
122587	VALVE, DIRECTIONAL VALVES, HYD. RAMS	0.00
122588	VALVE, DIRECTIONAL, VICKERS	0.00
122589	VALVE, VICKERS	2.00
122590	VALVE, DIRECTIONAL, HYD PUMPS	2.00
122591	VALVE, DIRECTIONAL, HYD PUMPS	1.00
122592	MOUNT, MOTOR, HYD PUMPS	2.00
122593	VALVE, SHUTTLE VICKERS, HYD. SKIDS	1.00

122594	VALVE, FLOW CONTROL, HYD. SKIDS	1.00
122595	FILTER	1.00
122596	HOSE, HYDRAULIC, RAM & COMBUSTOR	3.00
122597	INSERT, SPIDER RUBBER	4.00
122598	INSERT, SPIDER, HYD PUMPS	4.00
122599	COUPLING, LOVEJOY, HYD PUMPS	1.00
122600	COUPLING, LOVEJOY, HYD PUMPS	1.00
122601	COUPLER, LOVEJOY, HYD PUMPS	2.00
122602	COUPLER, LOVEJOY, HYD PUMPS	1.00
122603	INSERT, SPIDER LOVEJOY, HYD PUMPS	5.00
122604	INSERT, SPIDER LOVEJOY, HYD PUMPS	4.00
122605	O-RING, HYDRAULIC PUMPS	14.00
122606	FILTER, HYD. SKIDS	5.00
122607	FILTER, HYD. ROTATION, HYD. SKIDS	3.00
122608	FILTER, DONALDSON, HYD SKIDS	4.00
122609	FILTER, DONALDSON, HYD PUMPS	3.00
122610	FILTER, DONALDSON, HYD SKIDS	4.00
122611	FILTER, SUCTION, HYDRAULIC SKIDS	2.00
122612	FILTER, HYD, HYD. SKIDS	3.00
122613	CONNECTOR, HYDRAULIC VALVES	4.00
122614	THERMOMETER, HYD. SKIDS	1.00
122615	VALVE, CHECK, HYD SYSTEM	1.00
122616	FILTER	3.00
122617	CONTROLLER, RAM SPEED, COMBUSTORS	2.00
122625	TRAP, STEAM, IBM STEAM LINE	0.00
122764	BOARD, CHANNEL ALARM, ROSEMOUNT	5.00
122765	POWER SUPPLY, ROSEMOUNT	1.00
122766	BOARD, CHANNEL RELAY, ROSEMOUNT	0.00
122767	CARD, CHANNEL ALARM, ROSEMOUNT	0.00
122768	INDICATOR, ROSEMOUNT	0.00
122780	MODULE, SMABC RECTIFIER	3.00
122785	INDICATOR, ROSEMOUNT	0.00
122786	TRANSMITTER, ROSEMOUNT 0-30" H2O	1.00
122787	INDICATOR, ROSEMOUNT	0.00
122788	INDICATOR, ROSEMOUNT	1.00
122789	INDICATOR, ROSEMOUNT	1.00
122790	INDICATOR, ROSEMOUNT	0.00

122791	INDICATOR, ROSEMOUNT	1.00
122810	INDICATOR, ROSEMOUNT	0.00
122811	BOARD, CONTROL, MOORE PRODUCTS (REPAIRED)	2.00
122812	FAN, 12 VDC, MODICON	1.00
122813	GAUGE, MAGNEHELIC PRESSURE, OUTAGE	10.00
122814	GAUGE, DWYER (-1-0-1)	6.00
122815	GAUGE, DWYER (-2-0-2)	4.00
122816	GAUGE, PRESSURE 0-(-)30 PSI, PLANT INSTRUMENTATION	3.00
122817	GAUGE, 3D 0-15PSI	2.00
122818	GAUGE, 0-60	0.00
122819	GAUGE, 0-100	2.00
122820	GAUGE, 0-300	3.00
122821	GAUGE, 0-300	1.00
122822	GAUGE, 0-600 PSI 1/4" BOTTOM MOUNT	2.00
122823	GAUGE, 0-1500 PSI 1/2" BOTTOM MOUNT	4.00
122824	GAUGE, 0-1500	3.00
122825	GAUGE, 0-160	3.00
122826	MODULE	3.00
122829	TRANSMITTER	1.00
122830	TRANSMITTER, DIFFERENTIAL PRESSURE	0.00
122831	GAUGE, PHOTOHELIC	1.00
122832	GAUGE, 4", I&C	12.00
122833	CONTROLLER, MOORE	3.00
122834	POSITIONER, I/P TYPE 3722	1.00
122836	ASSEMBLY, SENSOR, DEMIN	1.00
122837	COOLER, CABINET, MODEL 4025	1.00
122838	GAUGE, MCDANIEL	0.00
122839	BOARD, CHANNEL, ROSEMOUNT	1.00
122840	CARD, CHANNEL, ROSEMOUNT	1.00
122841	CARD, CHANNEL T/C&MV INPUT, INSTRUMENTATION	1.00
122842	CARD, CHANNEL ROSEMOUNT, CONTROL RM	1.00
122843	COOLER, SYSTEM CAMERA, BOILERS	0.00
122844	POSITIONER, I/P TYPE 582I	0.00
122845	GAUGE, 0-30 PSI	1.00
122846	REGULATOR, 5-35 PSI	0.00
122847	RELAY, 110VAC	8.00
122848	TRANSFORMER, CAMERAS	1.00

122849	CONTROLLER, MOORE, P/P 3-15 PSI	0.00
122850	VALVE, SOLENOID 1/4" 3-WAY	0.00
122851	SWITCH, VS104, CONTROL BOARD	2.00
122852	POWER SUPPLY, CAMERAS	3.00
122853	SWITCH, PRESSURE, ASHCROFT, SUMP PUMPS	1.00
122854	PAPER, YOKOGAWA CHART	12.00
123420	FUSE, CONTROL, 13.8 KV BREAKER	2.00
123421	SWITCHGEAR, 13.8KV SIEMENS	0.00
123422	POSITIONER, 3-15PSIG FISHER	1.00
123423	POSITIONER, 6-30PSIG FISHER	1.00
123424	POSITIONER, 4-20MA FISHER	1.00
123425	CARD, GE OUTPUT	1.00
123426	POWER SUPPLY, GE	1.00
123427	PEN, VIOLET, CONTROL ROOM	9.00
123428	PEN, BLUE, CONTROL ROOM	11.00
123429	PEN, RED CONTROL ROOM CHART RECORDERS	12.00
123430	PEN, GREEN, CONTROL ROOM	12.00
123431	LENS, CAMERA 2.5" DIAMETER	11.00
123432	LENS, CAMERA 3" DIAMETER	6.00
123433	TRANSMITTER, ULTRASONIC LEVEL, PLT ACID TANKS	0.00
123434	CONTROLLER, MOORE 352	1.00
123435	COIL, ASCO VALVE, PLANT INSTRUMENTATION	1.00
123436	FUSE, POWER CONTROL, 13.8 KV BREAKER	2.00
123437	POWER SUPPLY, OPTO 22	1.00
123438	BOARD, CONTROL, ROSEMOUNT	0.00
123439	POWER SUPPLY, ROSEMOUNT	1.00
123440	BLOCK, TERMINAL, 13.8 KV BREAKER	4.00
123441	BLOCK, TERMINAL, 13.8 KV BREAKER	3.00
123442	BLOCK, TERMINAL, 13.8KV BREAKER	8.00
123465	BEARING, INBOARD, ID FANS	2.00
123466	INSERT, COUPLING, ID FANS	16.00
123467	KIT, FLANGE BOLT, ID FAN MOTOR	1.00
123468	FUSE, 800A / 700V SEMICONDUCTOR, ID FAN DRIVES	1.00
123469	FUSE, 300A/ 600V, ID FAN DRIVES	4.00
123470	BEARING, LINKBELT, ID FANS	2.00
123471	BEARING, LINKBELT, ID FANS	2.00
123472	MOTOR, INDUCED DRAFT FANS	1.00
123473	BRUSH, GROUNDING, ID FAN MOTORS	5.00
123474	COUPLING, HALF, HOLSET PM8, ID FAN MOTOR	1.00



123475	MODULE, IGBT, 450HP, ID FANS	4.00
123476	CARD, GATE DRIVER, ID FANS	1.00
123477	BOARD, MAIN CONTROL, ID & FD FANS	1.00
123478	FILTER, 16 X 30 X 2, ID FAN CONTROL ROOM	25.00
123479	FUSE	0.00
123481	ADAPTER, KNOCKER VALVES	2.00
123482	GLAND, PACKING, KNOCKER VALVES	2.00
123483	HANDLE, KNOCKER VALVES	0.00
123484	BOLT, EYE, KNOCKER VALVES	2.00
123485	NUT, LOCKING, KNOCKER VALVES	3.00
123582	FILTER, 12 X 12 X 2 PLEATED	11.00
123583	FILTER, 20 X 12 X 2 PLEATED	24.00
123584	BAG, NYLON SATIN, LP SYSYTEM	4.00
123585	BELT, GATES, LP BLOWERS	3.00
123586	CLAMP	0.00
123588	FUSE, HUMIDIFIER, LP SYSTEM	8.00
123589	BUSHING, SHOULDER, LP SYSTEM	3.00
123590	SLEEVE	2.00
123591	RELAY, SOLID STATE, LP DEHUMIDIFIER	1.00
123629	PUMP, LIFT STATION	1.00
123631	RELAY, OVERLOAD, CUTLER HAMMER	3.00
123632	PAPER, CHART	12.00
123633	PAPER, CHART	24.00
123634	PAPER, CHART	22.00
123635	PAPER, CHART	22.00
123636	BLOWER, SHADED POLE, MCC ROOM	5.00
123638	FUSE, GE, MCC ROOM	3.00
123639	FRQUENCY CHECK AUX. RELAYS	0.00
123640	DRIVE, BENSHAW	0.00
123641	KIT, MIR9000	0.00
123642	ASSEMBLY, FLUID TIP, SDA NOZZLES	5.00
123643	SEAL, RADIAL, 301SS FULL HARDENED	456.00
123645	PIN, HINGE	0.00
124346	BELT, CONVEYOR, LG BELT CONVEYOR	0.00
124347	SEAL, MECHANICAL	0.00
124348	BELT, CONVEYOR, TRAILER BELT CONVEYOR	0.00
124360	PAN, PIG, OUTDOOR	1.00
124361	VALVE, CHECK BOTTOM DISCHARGE, PHOS ACID	0.00

	PUMPS	
124362	VALVE, CHECK DISCHARGE, PHOS ACID PUMPS	0.00
124363	RETAINER, BALL, PHOS ACID PUMPS	0.00
124364	O-RING, 1", PHOS ACID PUMPS	0.00
124365	BALL, S.S. 1/2", PHOS ACID PUMPS	0.00
124366	SPRING, ANTI-SYPHON, PHOS ACID PUMPS	0.00
124367	BUSHING, SLIDE, PHOS ACID PUMPS	0.00
124368	SET, PACKING 1" BORE, PHOS ACID PUMPS	0.00
124369	O-RING, PHOS ACID PUMPS	0.00
124370	PIN, SLIDE, PHOS ACID PUMPS	0.00
124371	NUT, ADJUSTMENT SCREW, PHOS ACID PUMPS	0.00
124372	SCREW, ADJUSTMENT, PHOS ACID PUMPS	0.00
124373	CLIP, COVER, PHOS ACID PUMPS	0.00
124374	ASSEMBLY, DRIVE MOTOR & GEAR, PHOS. ACID PUMPS	0.00
124375	SLIDE, PHOS ACID PUMPS	0.00
124376	PLATE, BASE SIMPLEX, PHOS ACID PUMPS	0.00
124377	PLATE, COUPLING, DRIVE BASE, PHOS ACID PUMPS	0.00
124378	GUARD, COUPLING, PHOS ACID PUMPS	0.00
124379	ASSEMBLY, GEAR INTERMEDIATE, PHOS ACID PUMPS	0.00
124380	BREAKER, CIRCUIT, SIEMENS	1.00
124406	MODULE, CPU 16-BIT, PLC PARTS	1.00
124407	MODULE, MEMORY, PLC PARTS	1.00
124408	MODULE, PROCESSOR INPUT/OUTPUT, PLC PARTS	0.00
124409	MODULE, OUTPUT, PLC PARTS	1.00
124410	MODULE, OUTPUT, PLC PARTS	0.00
124411	MODULE, INPUT, PLC PARTS	2.00
124412	MODULE, OUTPUT, PLC PARTS	4.00
124413	RELAY, POWER, PLC PARTS	1.00
124414	MULTIPLEXER, ANALOG VOLTAGE U6 CHANNEL, PLC PARTS	2.00
124415	MODULE, ANALOG, PLC PARTS	1.00
124416	MODULE, ANALOG, PLC PARTS	1.00
124417	HOUSING, 11 SLOT, MODICON	1.00
124418	HOUSING, 8 SLOT, MODICON	1.00

124419	MODULE, ANALOG, PLC PARTS	2.00
124420	POWER SUPPLY,, PLC PARTS	2.00
124421	MODULE, ANALOG, PLC PARTS	1.00
124422	MODULE, OUTPUT, MODICON	1.00
124475	DAMPER, RC OVERFIRE&UNDERFIRE DAMPERS	0.00
124491	SEAL, RUBBER, ROTARY COMBUSTOR	10.00
124492	CALIPER, BRAKE, ROTARY COMBUSTORS	1.00
124497	NUT, PACKING, RC OVERFIRE&UNDERFIRE DAMPERS	12.00
124498	BOARD, INTERFACE, ROTORY COMBUSTOR	4.00
124499	SHAFT, ROTARY COMBUSTOR DRIVE	3.00
124500	BUSHING, INBOARD, RC OVERFIRE&UNDERFIRE DAMPERS	11.00
124501	SET, PACKING, RC OVERFIRE&UNDERFIRE DAMPERS	12.00
124502	BEARING, THRUST ROLLER, ROTARY COMBUSTOR	1.00
124503	BEARING, ROLLER SKF, ROTARY COMBUSTOR	3.00
124504	BEARING, THRUST ROLLER SKF, ROTARY COMBUSTOR	1.00
124505	BEARING, ROLLER TRUNION, ROTARY COMBUSTOR	2.00
124506	LINK, CONNECTING, ROTARY COMBUSTOR	2.00
124507	LINK, OFFSET, ROTARY COMBUSTOR	1.00
124508	WHEEL, RAM, 10"X2-3/4"	0.00
124509	CARD, CONTROL	1.00
124510	FILTER, ELEMENT ****FOR 3/4" NPT MALE BREATHER***	12.00
124511	BEARING, CONSOLIDATED, ROTARY COMBUSTOR	3.00
124512	SWITCH, PUSH-BUTTON, RC BURNERS	0.00
124513	NUT, LOCKING, ROTARY COMBUSTOR DRIVE	2.00
124514	GASKET,KIT, HAGGLAND DRIVE	0.00
124515	HOUSING	0.00
124516	BAND, STAINLESS STEEL	1.00
124517	POSITIONER, ZONE DAMPERS	0.00
124518	JOINT, EXPANSION, ROTARY COMBUSTOR AIR	0.00

	DAMPERS	
124519	MATERIAL, FIBERGLASS FABRIC (40" X 25')	0.00
124520	LENS, FILTER ADAPTER, CAMERAS	3.00
124521	O-RING, DASH #158, RAM CYLINDERS	25.00
124522	O-RING, DASH #256, RAM CYLINDERS	10.00
124523	RING, BEARING, ROTARY COMBUSTOR	3.00
124524	RING, LOCK, ROTARY COMBUSTOR	2.00
124525	SEAL	0.00
124526	SEAL, PLATE, AXIAL, COMBUSTORS	120.00
124527	SEAL	0.00
124528	BAR, BACKING, AXIAL SEAL 3/16 X 1-1/2 X 17-1/2	100.00
124529	BAR, BACKING, AXIAL SEALS 3/16 X 1-1/2 X 9-3/4	82.00
124530	BELT, TRANS, 10"-5 PLY, RAM SEALS	0.00
124531	BAR, BACKING, AXIAL SEALS	0.00
124532	WASHER, BELLEVILLE	19.00
124533	LENS, CAMERA, ROTARY COMBUSTORS	6.00
124534	SWITCH, PROXIMITY	1.00
124535	BEARING, TRUNION, ROTARY COMBUSTOR	1.00
124536	MATERIAL, RADIAL SEAL	0.00
124537	BEARING, FLANGE TWO-BOLT SKF, ROTARY COMBUSTORS	2.00
124538	METER, RED LION	1.00
124539	SEAL, OIL, THRUST ROLLER	0.00
124540	SEAL, OIL THRUST ROLLER	0.00
124541	SEAL, OIL, THRUST ROLLER	0.00
124542	MOTOR, HIGH TORQUE HAGGLUND, ROTARY COMBUSTOR	0.00
124543	MEMBRANE, COMBUSTOR W/ 5/8" HOLES AT 3" CENTERS	0.00
124544	MEMBRANE, COMBUSTOR (NO HOLES)	200.00
124546	CYLINDER, HYDRAULIC, ROTARY COMBUSTOR	0.00
124547	RAM, PIN HANDLE	2.00
124548	SEAL, OIL CLIPPER, ROTARY COMBUSTOR	3.00
124549	SEAL, OIL CLIPPER, ROTARY COMBUSTOR	6.00
124550	RAM, PIN	1.00

124551	FLANGE, ROTARY JOINT	0.00
124552	JOINT	0.00
124553	SEAL, RADIAL GAUGE 301 FULL HARDENED, COMBUSTORS	208.00
124554	LINK, MASTER, ROTARY COMBUSTOR	0.00
124555	SEGMENT, RADIAL SEAL, COMBUSTORS	54.00
124556	BEARING, MOUNTED TRUNION, ROTARY COMBUSTOR	2.00
124557	HOUSING, SKF, THRUST ROLLER	0.00
124558	HOUSING, SKF, THRUST ROLLER	0.00
124559	BAR, SEAL, COMBUSTORS	176.00
124560	RING, SPACER, ROTARY COMBUSTOR	3.00
124561	HOSE, 1/4" SS, COMBUSTOR BRAKES	2.00
124562	ROLLER, THRUST, COMBUSTORS	1.00
124563	RING, LOCK, ROTARY COMBUSTOR	2.00
124564	RING, ROTARY COMBUSTOR	2.00
124565	DIAPHRAGM, OVER/UNDER FIRE ACTUATORS	3.00
124566	LAMP AND BATTERY RECYCLING SERVICE	0.00
124569	BALLAST	0.00
124570	ASSEMBLY, LANCE & NOZZLE 132"	0.00
124571	ASSEMBLY, LANCE & NOZZLE 158"	1.00
124572	BEARING, RETRACTABLE SOOTBLOWERS	3.00
124573	BEARING, MRC, RETRACTABLE SOOTBLOWERS	6.00
124574	RING, RETAINING, RETRACTABLE SOOT BLOWERS	0.00
124575	GASKET, FEED TUBE, RETRACTABLE SOOTBLOWERS	6.00
124576	LEVER, ACTUATING, RETRACTABLE SOOT BLOWERS	4.00
124577	SPACER, RETRACTABLE SOOTBLOWERS	4.00
124578	CAP, RETRACTABLE SOOTBLOWERS	6.00
124579	NUT, DRIVE BRACKET, RETRACTABLE SOOTBLOWERS	0.00
124580	DIVIDER, TERMINAL BOX, RETRACTABLE SOOTBLOWERS	2.00
124581	BRACKET, TERMINAL BOX, RETRACTABLE SOOTBLOWERS	1.00
124582	GASKET, MOTOR, RETRACTABLE SOOTBLOWERS	23.00

124583	ASSEMBLY, VALVE, RETRACTABLE SOOTBLOWERS	1.00
124584	ASSEMBLY, ROLLER WHEEL, RETRACTABLE SOOTBLOWERS	2.00
124585	ASSEMBLY, ROLLER FRONT, RETRACTABLE SOOTBLOWERS	0.00
124586	HOUSING, GEAR REDUCER, RETRACTABLE	2.00
124587	PLATE, COVER CARRIAGE, RETRACTABLE SOOTBLOWERS	1.00
124588	GEAR, SPUR 65 TEETH, RETRACTABLE SOOTBLOWERS	2.00
124589	GEAR, SPUR 34 TEETH, RETRACTABLE SOOTBLOWERS	0.00
124590	SHAFT, WORM, RETRACTABLE SOOTBLOWERS	3.00
124591	SHAFT, PINION, RETRACTABLE SOOTBLOWER	1.00
124592	PLATE, CLAMPING FEED, RETRACTABLE SOOTBLOWERS	1.00
124593	TUBE, FEED, RETRACTABLE SOOTBLOWERS	0.00
124594	SHAFT, FRONT SUPPORT, RETRACTABLE SOOTBLOWERS	2.00
124595	HUB, LANCE(VERT.), RETRACTABLE SOOTBLOWERS	3.00
124596	GEAR, SPUR 17 TEETH, RETRACTABLE SOOTBLOWERS	1.00
124597	SHAFT, SQUARE 1-1/2" X 131", RET SOOTBLOWERS	0.00
124598	PINION, DRIVE CARRIAGE, RETRACTABLE SOOTBLOWERS	0.00
124599	GEAR, WORM BRASS, RETRACTABLE SOOTBLOWERS	1.00
124600	GEAR, WORM REDUCER, RETRACTABLE SOOTBLOWERS	7.00
124601	GASKET, RETRACTABLE SOOTBLOWERS	0.00
124602	PACKING, RETRACTABLE SOOT BLOWERS	2.00
124603	SHAFT, DRIVE REDUCER, RETRACTABLE SOOTBLOWERS	1.00
124604	SLEEVE, DRIVE REDUCER, RETRACTABLE SOOTBLOWERS	0.00
124605	FLANGE, HUB, RETRACTABLE SOOTBLOWERS	0.00

124606	BUSHING, PACKING, RETRACTABLE SOOTBLOWERS	4.00
124607	GASKET, LANCE TUBE, RETRACTABLE SOOTBLOWERS	17.00
124608	STUD, TRIP POPPET VALVE CAM, RETRACTABLE SOOTBLOWERS	3.00
124609	BLOCK, STOP REAR, RETRACTABLE SOOTBLOWERS	2.00
124610	SHAFT, UP. ROLLER, RETRACTABLE SOOTBLOWERS	1.00
124611	ROLLER, RETRACTABLE SOOTBLOWERS	0.00
124612	GEAR, WORM (6, 1), RETRACTABLE SOOTBLOWERS	1.00
124613	SHIM, WORM GEAR, RETRACTABLE SOOTBLOWERS	15.00
124614	GASKET, SHIM, RETRACTABLE SOOTBLOWERS	9.00
124615	GASKET, SHIM, RETRACTABLE SOOTBLOWERS	4.00
124616	SHIM, WORM GEAR, RETRACTABLE SOOTBLOWERS	0.00
124617	SPACER, PINION SHAFT, RETRACTABLE SOOTBLOWERS	3.00
124618	ASSEMBLY, ROLLER, RETRACTABLE SOOTBLOWERS	0.00
124619	ROLLER, PINION SHAFT, RETRACTABLE SOOTBLOWERS	3.00
124620	GASKET, COVER PLATE, RETRACTABLE SOOTBLOWERS	2.00
124621	COVER, PLATE GASKET, RETRACTABLE SOOTBLOWERS	1.00
124622	GASKET, PLATE COVER IK4M, RETRACTABLE SOOTBLOWERS	0.00
124623	ASSEMBLY, SHAFT, RETRACTABLE SOOTBLOWERS	5.00
124624	KEY, SQUARE 6MM, RETRACTABLE SOOTBLOWERS	6.00
124625	KEY, SQUARE 6MM, RETRACTABLE SOOTBLOWERS	15.00
124626	KEY, SQUARE 5MM, RETRACTABLE SOOTBLOWERS	4.00
124627	KEY, SQUARE 8MM, RETRACTABLE SOOTBLOWERS	4.00
124628	GASKET, FEED TUBE, RETRACTABLE SOOTBLOWERS	10.00

124629	CAP, RETRACTABLE SOOTBLOWERS	4.00
124630	SPACER, TRIP STUD	16.00
124631	SPACER, TRIP STUD, RETRACTABLE SOOTBLOWERS	3.00
124632	HOUSING, CARRIAGE, RETRACTABLE SOOTBLOWERS	0.00
124633	ASSEMBLY, CAM&ARM, RETRACTABLE SOOTBLOWERS	2.00
124634	ASSEMBLY, INDEX COLLAR, RETRACTABLE SOOTBLOWER	1.00
124635	GEAR, 65 TOOTH W/GROOVE, SOOTBLOWERS	0.00
124636	HUB, LANCE, RETRACTABLE SOOT BLOWERS	0.00
124637	LABEL, CAUTION, SOOT BLOWERS	2.00
124638	ADAPTER, RETRACTABLE SOOTBLOWERS	3.00
124639	POPPET, RETRACTABLE SOOTBLOWERS	1.00
124640	ASSEMBLY, POPPET IK4M REBUILD	0.00
124641	MOTOR, 1HP, RETRACTABLE SOOTBLOWERS	1.00
124642	NOZZLE, LANCE, RETRACTABLE SOOT BLOWERS	2.00
124643	BEARING, MRC, RETRACTABLE SOOTBLOWERS	13.00
124644	PIPE, WALLBOX 5X12.5, RETRACTABLE SOOTBLOWERS	2.00
124645	NUT, HEX JAM, RETRACTABLE SOOTBLOWERS	26.00
124646	PIN, COTTER, RETRACTABLE SOOTBLOWERS	4.00
124647	PIN, CLEVIS, RETRACTABLE SOOTBLOWERS	7.00
124648	BOLT, RETRACTABLE SOOTBLOWERS	0.00
124649	WASHER, LOCK TYPE 5, RETRACTABLE SOOTBLOWERS	2.00
124650	NUT, JAM, RETRACTABLE SOOTBLOWERS	24.00
124651	NUT, JAM HEX, RETRACTABLE SOOTBLOWERS	4.00
124652	NUT, HEX, RETRACTABLE SOOTBLOWERS	0.00
124653	NUT, HEX STOP, RETRACTABLE SOOTBLOWERS	83.00



124654	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	4.00
124655	SCREW, CAPHX HD, RETRACTABLE SOOTBLOWERS	4.00
124656	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	6.00
124657	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	4.00
124658	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	6.00
124659	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	455.00
124660	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	23.00
124661	SCREW, CAP HX HD, RETRACTABLE SOOTBLOWERS	6.00
124662	WASHER, STD M10, RETRACTABLE SOOTBLOWERS	10.00
124663	WASHER, LOCK M10, RETRACTABLE SOOTBLOWERS	0.00
124664	WASHER, LOCK SPLIT, RETRACTABLE SOOTBLOWERS	11.00
124665	WASHER, LOCK M16, RETRACTABLE SOOTBLOWERS	21.00
124666	FOLLOWER, CAM, RETRACTABLE SOOTBLOWER	0.00
124667	RING, GASKET, RETRACTABLE SOOTBLOWERS	14.00
124668	LATCH, CATCH DRAW PULL, RETRACTABLE SOOTBLOWERS	2.00
124669	FITTING, GREASE, RETRACTABLE SOOTBLOWERS	6.00
124670	PLUG, EXPANSION, RETRACTABLE SOOTBLOWERS	11.00
124671	RING, RETAINING, RETRACTABLE SOOTBLOWERS	40.00
124672	RING, RETAINING, RETRACTABLE SOOTBLOWERS	27.00
124673	RING, RETAINING, RETRACTABLE SOOTBLOWERS	10.00
124674	RING, RETAINING, RETRACTABLE SOOTBLOWERS	19.00
124675	RING, RETAINING, RETRACTABLE SOOTBLOWERS	8.00
124676	RING, RETAINING, RETRACTABLE SOOTBLOWERS	8.00

124677	RING, RETAINING, RETRACTABLE SOOTBLOWERS	6.00
124678	RING, RETAINING, RETRACTABLE SOOTBLOWERS	41.00
124679	RING, RETAINING, RETRACTABLE SOOTBLOWERS	0.00
124680	RING, RETAINING, RETRACTABLE SOOTBLOWERS	0.00
124681	RING, RETAINING, RETRACTABLE SOOTBLOWERS	51.00
124682	RING, RETAINING, RETRACTABLE SOOTBLOWERS	0.00
124683	RING, RETAINING, RETRACTABLE SOOTBLOWERS	7.00
124684	RING, RETAINING, RETRACTABLE SOOTBLOWERS	6.00
124685	SEAL, OIL, RETRACTABLE SOOTBLOWER	0.00
124686	SEAL, OIL, RETRACTABLE SOOTBLOWERS	2.00
124687	SEAL, OIL, ROTARY SOOTBLOWERS	0.00
124688	SEAL, OIL, RETRACTABLE SOOTBLOWERS	0.00
124689	SEAL, OIL, RETRACTABLE SOOTBLOWERS	4.00
124690	SEAL, OIL, RETRACTABLE SOOTBLOWER	7.00
124691	BUSHING, PLAIN, RETRACTABLE SOOTBLOWERS	3.00
124692	TUBE, LANCE, SOOTBLOWERS	1.00
124693	SEAL, OIL CHICAGO RAWHIDE	1.00
124694	SWITCH, CUTLER HAMMER LIMIT, RET SOOTBLOWERS	0.00
124695	HEAD, CUTLER HAMMER	1.00
124696	BODY, CUTLER HAMMER LIMIT SWITCH, RET SOOTBLOWERS	0.00
124697	TUBE, FEED 157", RETRACTABLE SOOTBLOWERS	1.00
124698	TUBE, FEED 114", RETRACTABLE SOOTBLOWERS	0.00
124699	TUBE, FEED 130", RETRACTABLE SOOTBLOWERS	1.00
124700	SHAFT, SQUARE 1-1/2" X 158", RET SOOTBLOWERS	1.00
124713	BELT, AIR COMPRESSOR ROOF FAN	1.00

124714	MOTOR, 10HP, ROOF FANS	0.00
124715	BELT, ROOF FAN#6	4.00
124716	PULLEY, TIPPING FLOOR ROOF FAN	1.00
124717	BELT, GOODYEAR, TIPPING ROOF FAN#10	3.00
124718	BUSHING, TIPPING FLOOR ROOF FAN	0.00
124719	BUSHING, TAPERED BROWNING, ROOF FANS	2.00
124720	BEARING, PILLOWBLOCK, ROOF FANS	2.00
124721	RING, PACKING 1"X44-1/2", ROTARY JOINT	15.00
124722	RING, PAPER PACKING, ROTARY JOINT	14.00
124723	BREAKER, SIEMENS	1.00
124724	SPRING, PLATE SEAL, ROTARY SOOTBLOWERS	2.00
124725	COUPLER, MOTOR, ROTARY SOOTBLOWERS	3.00
124726	YOKE, ROTARY SOOTBLOWERS	9.00
124727	PIN, TRIGGER, ROTARY SOOTBLOWERS	16.00
124728	WASHER, VALVE STEM, ROTARY SOOTBLOWERS	11.00
124729	WASHER, THRUST, ROTARY SOOTBLOWERS	29.00
124730	PIN, YOKE VALVE, ROTARY SOOTBLOWERS	44.00
124731	RETAINER, VALVE SPRING, ROTARY SOOTBLOWERS	9.00
124732	GEAR, ROTARY SOOTBLOWERS	0.00
124733	CAM, HI-PRESS TRIGGER, ROTARY SOOTBLOWERS	4.00
124734	WASHER, PACKING VALVE SEAT, ROTARY SOOTBLOWERS	10.00
124735	NUT, PACKING VALVE STEM, ROTARY SOOTBLOWERS	1.00
124736	PACKING, VALVE STEM, ROTARY SOOTBLOWERS	4.00
124737	PLUG, LOCK PIN, ROTARY SOOTBLOWERS	0.00
124738	PLUG, LOCK PIN, ROTARY SOOTBLOWERS	6.00
124739	GLAND, PACKING, ROTARY SOOTBLOWERS	2.00
124740	TRIGGER, STD BLOWING, ROTARY SOOTBLOWERS	17.00

124741	SPRING, ROTARY SOOTBLOWERS	3.00
124742	STUD, BRACKET, ROTARY SOOTBLOWERS	4.00
124743	STUD, STD 3/125, ROTARY SOOTBLOWERS	4.00
124744	STUD, STD 2-3/4", ROTARY SOOTBLOWERS	75.00
124745	CLAMP, ROTARY SOOTBLOWERS	2.00
124746	BUSHING, ROTARY SOOTBLOWERS	27.00
124747	BOLT, ROTARY SOOTBLOWER	4.00
124748	PINION, REDUCING GEAR, ROTARY SOOTBLOWERS	0.00
124749	GEAR, SOOT BLOWERS	1.00
124750	TRIGGER, ROTARY SOOTBLOWERS	2.00
124751	BRACKET, ROTARY SOOTBLOWERS	2.00
124752	BOX, FLOATING STUFFING, ROTARY SOOTBLOWERS	0.00
124753	PACKING, ROTARY SOOTBLOWERS	3.00
124754	BOLT, ROTARY SOOTBLOWERS	9.00
124755	ASSEMBLY, RETAINER, ROTARY SOOTBLOWERS	6.00
124756	DISC, VALVE, ROTARY SOOTBLOWERS	1.00
124757	VALVE, POPPET, RETRACTABLE SOOTBLOWERS	2.00
124758	PACKING, LANCE, ROTARY SOOTBLOWER	8.00
124759	VALVE, POPPET, ROTARY SOOTBLOWERS	2.00
124760	DISC, LAPPING	0.00
124761	DISC, LAPPING(FINISH), ROTARY SOOTBLOWERS	1.00
124762	COUPLING, ELEMENT, ROTARY SOOTBLOWERS	1.00
124763	ASSEMBLY, FLANGE&GASKET, ROTARY SOOTBLOWERS	6.00
124764	SEAL, PLATE, ROTARY SOOTBLOWERS	3.00
124765	GASKET, GEAR REDUCER, ROTARY SOOTBLOWERS	4.00
124766	WASHER, LOCKING TAB, ROTARY SOOTBLOWERS	19.00
124767	STEM, VALVE, ROTARY SOOTBLOWERS	3.00
124768	KEY, SQ 6MM, ROTARY SOOTBLOWERS	4.00

124769	FITTING, BULKHEAD, REAR IK4M	2.00
124770	ADAPTER, PLUG, ROTARY SSOTBLOWERS	9.00
124771	GASKET, SOOTBLOWERS	0.00
124772	PACKING, SWIVEL TUBE, ROTARY SOOTBLOWERS	7.00
124773	KIT, VALVE&PACKING, ROTARY SOOTBLOWERS	1.00
124774	ASSEMBLY, WALLBOX SPLIT, ROTARY SOOTBLOWERS	4.00
124775	BLOCK, TERMINAL, ROTARY SOOTBLOWERS	0.00
124776	PLUG, LOCK, ROTARY SOOTBLOWERS	6.00
124777	ASSEMBLY, GOOSENECK G9B REBUILD	0.00
124778	GASKET, 600#, ROTARY SOOTBLOWERS	2.00
124779	PACKING, ROTARY SOOTBLOWER	35.00
124780	TUBE, SWIVEL 28" WO/THREADS	1.00
124781	SIPHON, PIGTAIL 180DEG, ROTARY SOOTBLOWERS	2.00
124782	FLANGE, BLIND 4", ROTARY SOOTBLOWERS	4.00
124783	SEAL, OIL, ROTARY SOOTBLOWERS	5.00
124784	VALVE, GATE THREADED 1/2, SOOTBLOWERS	0.00
124785	ELEMENT, ROTARY SOOT BLOWERS	1.00
124786	ASSEMBLY, ELEMENT, ROTARY SOOTBLOWERS	1.00
124787	SEAL, OIL, ROTARY SOOTBLOWERS	5.00
124788	PIPE, WALLBOX 5X24.125, RETRACTABLE SOOTBLOWERS	3.00
124789	ASSEMBLY, GOOSENECK, G9B SOOTBLOWERS	1.00
124790	VALVE, 120V AC ASCO 3-WAY HIGH-TEMP, BOILERS	1.00
124791	HOLDER, LAMP DIALCO, ROTARY SOOTBLOWERS	0.00
124792	BULB, LAMP 07A 28V, ROTARY SOOTBLOWER	4.00
124793	MOTOR, ROTORY SOOT BLOWERS	1.00
124794	RELAY, CONTROL, ROTARY SOOTBLOWERS	2.00

124795	RELAY, ROTARY SOOT BLOWERS	1.00
124796	SWITCH, LIMIT CH, SOOTBLOWERS	1.00
124797	SWITCH, LIMIT, ROTARY SOOTBLOWERS	2.00
124798	SWITCH, CUTLER-HAMMER, ROTARY SOOTBLOWERS	2.00
124799	SWITCH, TOGGLE, ROTARY SOOTBLOWERS	6.00
124800	BLOCK, TERMINAL, ROTARY SOOTBLOWERS	0.00
124801	BLOCK, TERMINAL, ROTARY SOOTBLOWERS	3.00
124802	HUB, CONDUIT, ROTARY SOOTBLOWERS	2.00
124803	CONNECTOR, SEALTITE, ROTARY SOOTBLOWERS	2.00
124804	RESISTOR, ROTARY SOOTBLOWERS	0.00
124805	NUT, ROTARY SOOTBLOWERS	0.00
124806	NUT, HEX STEEL JAM, ROTARY SOOTBLOWERS	42.00
124807	NUT, HX CD PL STEEL, ROTARY SOOTBLOWERS	19.00
124808	PIN, COTTER, ROTARY SOOTBLOWERS	1.00
124809	PIN, COTTER, ROTARY SOOTBLOWERS	1.00
124810	PIN, ROLL, ROTARY SOOTBLOWERS	4.00
124811	PIN, ROLL, SOOTBLOWERS	8.00
124812	SCREW, CAP FLAT-HEAD, ROTARY SOOTBLOWERS	0.00
124813	SCREW, CAP, ROTARY SOOTBLOWERS	16.00
124814	BOLT, SOOTBLOWERS	10.00
124815	SCREW, SET SOCKET HD FLAT PT7-8, ROTARY SOOTBLOWERS	1.00
124816	SCREW, SET HD1-2, ROTARY SOOTBLOWERS	0.00
124817	WASHER, SOOTBLOWERS	9.00
124818	WASHER, SOOTBLOWERS	9.00
124819	WASHER, TRIP STUD	11.00
124820	BOLT, TRIP STUD	11.00
124821	WASHER, LOCK PIN, ROTARY SOOTBLOWERS	6.00
124822	RING, RETAINING, SOOTBLOWERS	12.00
124823	O-RING, ROTARY SOOTBLOWERS	3.00

124824	SEAL, OIL, ROTARY SOOTBLOWERS	15.00
124825	PLUG, HEX SS, ROTARY SOOTBLOWERS	8.00
124826	PLUG, SOCKET HD, ROTARY SOOTBLOWERS	7.00
124827	PAD, FRICTION, REACTION TANK AGITATOR	0.00
124828	BEARING, SKF, REACTION TANK	2.00
124829	GEAR, REDUCER DRIVE, REACTION TANK	0.00
124830	BEARING, SKF, REACTION TANK	4.00
124831	BEARING, SKF, TRAVELING GRATE	6.00
124832	BEARING, SKF, REACTION TANK	1.00
124833	BEARING, SKF, REACTION TANK	1.00
124834	BEARING, SKF, REACTION TANK	3.00
124835	BEARING, SKF, REACTION TANK	1.00
124883	BREATHER, TUBE GASKET,(5/CASE)	0.00
125041	BOLT, 5/8"-11 X 2-1/2" GR 8	0.00
125042	NUT, 5/8"-11 GR 8	0.00
125043	COLLAR, CLAMPTITE 2-5/16", SIFTINGS CONV.& BA CONV.	1.00
125044	LINK, CONNECTING, SIFTINGS CONVEYOR DRIVE CHAIN	0.00
125045	LINK, OFFSET, SIFTINGS CONVEYOR DRIVE CHAIN	0.00
125046	SPROCKET, SIFTINGS DRIVE CHAIN	0.00
125047	SPROCKET, SIFTINGS DRIVEN CHAIN	0.00
125048	CHAIN, SIFTINGS CONVEYOR DRIVE	0.00
125049	PIN, (DOGBONE), SIFTING CONVEYORS	16.00
125050	MOTOR, 5HP BALDOR, SIFT CONVEYOR	1.00
125053	DRIVE, SUMITOMO, SIFTINGS CONVEYOR	0.00
125054	SPROCKET, SIFTINGS TAKEUP	4.00
125055	ATTACHMENT, 678 CHAIN, CAST STEEL	16.00
125056	WHEEL, TRACTION SPLIT 17", SIFTINGS CONVEYOR	4.50
125057	SHAFT, HEAD, SIFTINGS CONVEYOR	1.00
125058	SHAFT, SUBMERGED, SIFTING CONVEYORS	2.00
125059	SHAFT, LOWER TURN, SIFTING CONVEYORS	1.00
125060	SHAFT, TAKE UP, SIFTING CONVEYORS	1.00

125061	FLIGHT, SIFTING CONVEYOR	28.00
125062	PIN, THD COUPLER, SIFTING CONVEYOR	15.00
125063	SPROCKET, HEAD 5-TOOTH, SIFTINGS CONVEYOR	4.00
125064	BEARING, FLOATING, SIFTING CONVEYOR	3.00
125065	COVER, FAN, SIFTING CONVEYORS	1.00
125066	FAN, SIFTING CONVEYOR	1.00
125067	CHAIN, RIVETLESS, SIFTING & FLY ASH DRAG CONVEYORS	19.00
125212	POWER SUPPLY	1.00
125213	BOARD, AB MEMORY CONTROLLER, SDA	1.00
125214	MODULE, AB THERMOCOUPLE, SDA	1.00
125215	MODULE, INPUT 120V AC, SDA	2.00
125216	MODULE, AB INPUT, SDA	1.00
125217	MODULE, AB INPUT, SDA	1.00
125218	MODULE, AB THERMOCOUPLE, SDA	1.00
125219	MODULE, AB INPUT, SDA	1.00
125220	MODULE, AB INPUT, SDA	1.00
125221	BEARING, ROD END, SDA DOUBLE DUMP VALVES	6.00
125222	SCREW, ROD END UPPER, SDA DOUBLE DUMP VALVES	12.00
125223	SCREW, ROD END LOWER	4.00
125224	LIMITER, TORQUE, SDA DOUBLE DUMP VALVES	1.00
125225	REDUCER, SPEED, SDA DD VALVES	0.00
125227	GAUGE, 0-300PSI, SDA	3.00
125233	KIT, OIL SAMPLE, SDA SYSTEM	3.00
125234	ELEMENT, FILTER AIREND INLET (125-150 HP/90-110KW)	0.00
125235	ELEMENT, COOLANT FILTER	0.00
125236	ELEMENT, SEPERATOR	0.00
125237	MONITOR, FLOW, SDA	1.00
125238	O-RING, NOZZLE, SDA	16.00
125239	BELT, SDA, WALL FANS	1.00
125240	BELT, SDA	2.00
125241	O-RING, SLURRY PUMPS	9.00
125242	WASHER, DAMPENING, SLURRY PUMPS	12.00
125243	KIT, REPLACEMENT PARTS, SLURRY PUMPS	1.00
125244	KIT, REPLACEMENT PARTS, SLURRY PUMPS	0.00



125245	KIT, REPLACEMENT PARTS, SLURRY PUMPS	0.00
125246	NOZZLE, FLOMAX 316SS W/ 316SS WEAR PARTS	0.00
125247	CAP, NOZZLE, SDA	0.00
125248	BOLT, SLURRY PUMPS	25.00
125249	WASHER, LOCK, 10MM, SLURRY PUMPS	37.00
125250	BOLT, SOCKET HEAD M12X1.25X114MM, SLURRY PUMPS	2.00
125251	FITTING, 1" QUICK CONNECT, SDA	2.00
125252	KIT, MAINTENANCE	6.00
125253	INSERT, M4 HIGH TEMP, SECONDARY AIR FANS	1.00
125254	BEARING, DODGE 2-3/16"	0.00
125255	BEARING, SKF, FD FANS	2.00
125256	KIT, MAINTENANCE	0.00
125257	MOTOR, FAN	1.00
125258	KIT	0.00
125259	MOTOR, SEVERE DUTY, SECONDARY AIR FANS	0.00
125260	HOUSING, BEARING SKF, FD FANS	2.00
125261	ADAPTER, BEARING, FD FANS	2.00
125262	RING, SPACER, FD FANS	7.00
125264	CLIP, TUBING	0.00
125265	SHIELD, TUBE, 2" 210DEG WRAP 10GA 304SS 8' LENGTH	0.00
125272	PISTON, INNER, SLUDGE PUMPS	2.00
125273	DIAPHRAGM, SLUDGE PUMPS	0.00
125274	O-RING, SLUDGE PUMPS	4.00
125275	SCREEN, AIR VALVE, SLUDGE PUMPS	5.00
125276	SHAFT, SLUDGE PUMPS	1.00
125277	PISTON, OUTER, SLUDGE PUMPS	2.00
125278	INLET, HOUSING, SLUDGE PUMPS	2.00
125279	BOLT, SMALL, SLUDGE PUMPS	8.00
125280	BOLT, CARRAIGE, SLUDGE PUMPS	8.00
125281	STUD, SHAFT, SLUDGE PUMPS	2.00
125282	NUT, SMALL, SLUDGE PUMPS	8.00
125283	NUT, LARGE, SLUDGE PUMPS	8.00
125284	ASSEMBLY, SMALL BAND CLAMP, SLUDGE PUMPS	8.00
125285	CLAMP, LARGE, SLUDGE PUMPS	4.00
125286	DIAPHRAGM, SLUDGE PUMPS	2.00
125287	PISTON, INNER, SLUDGE PUMPS	0.00

125289	BUSHING, TAPER-LOCK BEARING, MARTIN	1.00
125290	BUSHING, QD	2.00
125291	BEARING, MRC	3.00
125292	BEARING, MRC	3.00
125293	BEARING, SKF	2.00
125294	BEARING, SKF	2.00
125295	BEARING, SKF	1.00
125296	BEARING, SKF	6.00
125297	BEARING, SKF	1.00
125298	BUSHING, TAPERED DODGE	1.00
125299	BUSHING, TAPERED DODGE	2.00
125300	BEARING, INPUT COUNTER BEARING MRC	3.00
125301	BEARING, ADAPTER MRC	3.00
125302	BEARING, TIMKEN	2.00
125303	BEARING, SKF	4.00
125304	BELT, GATES	11.00
125305	FLANGE, COUPLING, 5/8"	5.00
125306	COUPLING, HALF 5/8 5S	4.00
125307	VALVE, REGULATING	2.00
125308	VALVE, CHECK WAFER 4"	2.00
125309	LINK, OFFSET	8.00
125310	CHAIN, ROLLER	10.00
125311	BELT, BROWNING	1.00
125312	HUB, STRAIGHT 1-1/8" BORE	4.00
125313	BEARING, SKF	2.00
125314	BEARING, SKF	6.00
125315	BEARING, SKF	4.00
125316	BEARING, SKF	6.00
125317	BEARING, SKF	4.00
125318	JOINT, EXPANSION	2.00
125319	BELT	4.00
125320	BELT	1.00
125321	BELT	6.00
125322	BELT	3.00
125323	BELT	8.00
125324	BELT	4.00
125325	BELT	3.00
125326	BELT	4.00
125327	BELT, GOODYEAR	5.00
125328	PULLEY, BROWNING	1.00
125329	PULLEY, BROWNING	1.00
125330	PULLEY, BROWNING	0.00
125331	PULLEY, BROWNING	0.00
125332	BELT	5.00

125333	BELT, FLYASH BELT MOTOR	4.00
125334	BELT	4.00
125335	BELT	4.00
125336	SEAL, OIL CHICAGO RAWHIDE	1.00
125337	SEAL, OIL CHICAGO RAWHIDE	4.00
125338	SEAL, OIL CHICAGO RAWHIDE	2.00
125339	SEAL, OIL CHICAGO RAWHIDE	3.00
125340	SEAL, OIL CHICAGO RAWHIDE	2.00
125341	SEAL, OIL CHICAGO RAWHIDE	2.00
125342	SEAL, OIL CHICAGO RAWHIDE	6.00
125343	SEAL, OIL CHICAGO RAWHIDE	7.00
125344	SEAL, OIL CHICAGO RAWHIDE	4.00
125345	SEAL, OIL CHICAGO RAWHIDE	2.00
125346	SEAL, OIL CHICAGO RAWHIDE	3.00
125347	SEAL, OIL CHICAGO RAWHIDE	3.00
125348	SEAL, OIL CHICAGO RAWHIDE	2.00
125349	SEAL, OIL CHICAGO RAWHIDE	3.00
125350	SEAL, OIL CHICAGO RAWHIDE	5.00
125351	SEAL, OIL CHICAGO RAWHIDE	5.00
125352	SEAL, OIL CHICAGO RAWHIDE	6.00
125353	SEAL, OIL CHICAGO RAWHIDE	2.00
125354	SEAL, OIL CHICAGO RAWHIDE	8.00
125355	SEAL, OIL CHICAGO RAWHIDE	2.00
125356	SEAL, OIL CHICAGO RAWHIDE	4.00
125357	SEAL, OIL CHICAGO RAWHIDE	3.00
125358	SEAL, OIL CHICAGO RAWHIDE	3.00
125359	BELT, REVERSE AIR FANS	3.00
125360	BEARING, FAG	2.00
125361	BEARING, FAG	1.00
125362	BEARING, FAG	1.00
125363	BEARING, FLANGE 2" 4-BOLT	2.00
125364	BEARING, SKF TWO BOLT FLANGE	4.00
125365	SEAL, OIL GARLOCK	3.00
125366	SEAL, OIL GARLOCK	5.00
125367	BUSHING, TAPERLOCK	1.00
125368	HOUSING, BEARING	2.00
125369	BEARING, KOYO	1.00
125370	COUPLING, LOVEJOY	2.00
125371	COUPLING, LOVEJOY	6.00
125372	COUPLING, LOVEJOY	2.00
125373	COUPLING, LOVEJOY	5.00
125374	COUPLING, LOVEJOY	2.00
125375	COUPLING, LOVEJOY	2.00
125376	COUPLING, LOVEJOY	3.00
125377	COUPLING, LOVEJOY	4.00

125378	INSERT, SPIDER RUBBER	2.00
125379	COUPLING, LOVEJOY	4.00
125380	COUPLING, LOVEJOY	5.00
125381	COUPLING, LOVEJOY	4.00
125382	COUPLING, LOVEJOY 1-1/4	3.00
125383	COUPLING, LOVEJOY 1-1/2"	3.00
125384	INSERT, SPIDER RUBBER	2.00
125385	COUPLING, MAGMALOY 1-7/8"X1/2"	2.00
125386	SEAL, OIL NATIONAL	6.00
125387	SEAL, OIL NATIONAL	2.00
125388	BEARING, NEEDLE INA	2.00
125389	COUPLING, FLEX OMEGA	1.00
125390	BEARING, DRIVE FIXED LINKBELT, SIFTINGS CONVEYOR	2.00
125391	BEARING, SEALMASTER	4.00
125392	KIT, REBUILD	2.00
125393	BEARING, FAFNIR	1.00
125394	BEARING, SST	0.00
125395	CYLINDER, TILT, 1845C	0.00
125396	O-RING, 1845C SKIDSTEER	0.00
125397	SEAL, OIL, 1845C SKIDSTEER	0.00
125398	WASHER, 1845C SKIDSTEER	0.00
125399	BRACKET, 1845C SKIDSTEER	0.00
125400	BOLT, MM, 1845C SKIDSTEER	0.00
125401	CABLE, 1845C SKIDSTEER	0.00
125402	FUSE, 1845C SKIDSTEER	0.00
125403	FILTER, PRIMARY, 1845C SKIDSTEER	0.00
125404	FILTER, SECONDARY, 1845C SKIDSTEER	0.00
125405	CAP, 1845C SKIDSTEER	0.00
125406	TERMINAL, 1845C SKIDSTEER	0.00
125407	RING, RETAINING, 1845C SKIDSTEER	0.00
125408	FILTER, FUEL, 1845C SKIDSTEER	0.00
125409	HANDLE, 1845C SKIDSTEER	0.00
125410	HANDLE, 1845C SKIDSTEER	0.00
125411	CLAMP, 1845C SKIDSTEER	0.00
125412	BRACKET, ANGLE, 1845C SKIDSTEER	0.00
125413	PIN, BUCKET ATTACHMENT, 1845C SKIDSTEER	0.00
125414	HOSE, 1845C SKIDSTEER	0.00
125415	GASKET, COVER, 1845C SKIDSTEER	0.00
125416	FILTER, AS, 1845C SKIDSTEER	0.00
125417	CABLE, 1845C SKIDSTEER	0.00
125418	ROD, 1845C SKIDSTEER	0.00
125419	CABLE, 1845C SKIDSTEER	0.00

125420	CHAIN, 1845C SKIDSTEER	0.00
125421	CLIP, 1845C SKIDSTEER	0.00
125422	PIN, 1845C SKIDSTEER	0.00
125423	ASSEMBLY, HYD. PUMP, 1845C SKIDSTEER	0.00
125424	PANEL, 1845C SKIDSTEER	0.00
125425	PIN, BUCKET ATTACHMENT, 1845C SKIDSTEER	0.00
125426	LINK, CONNECTING, 1845C SKIDSTEER	0.00
125427	BUSHING, 1845C SKIDSTEER	0.00
125428	PIN, 1845C SKIDSTEER	0.00
125429	BUSHING, 1845C SKIDSTEER	0.00
125430	PIN, 1845C SKIDSTEER	0.00
125431	BOOT, RUBBER, 1845C SKIDSTEER	0.00
125432	STUD, WHEEL, 1845C SKIDSTEER	0.00
125433	LINK, MASTER LEFT-HANDED, 1845C SKIDSTEER	0.00
125434	SPRING, 1845C SKIDSTEER	0.00
125435	END, ROD COUPLING, 1845C SKIDSTEER	0.00
125436	KIT, SEAL, 1845C SKIDSTEER	0.00
125437	CYLINDER, TILT, 1845C SKIDSTEER	0.00
125438	BUSHING, 1845C SKIDSTEER	0.00
125439	BOLT, 1845C SKIDSTEER	0.00
125440	WASHER, 1845C SKIDSTEER	0.00
125441	SPACER, 1845C SKIDSTEER	0.00
125442	BLOCK, SPACER, 1845C SKIDSTEER	0.00
125443	BLOCK, ADJUSTABLE, 1845C SKIDSTEER	0.00
125444	COVER, CHAIN ACCESS, 1845C SKIDSTEER	0.00
125445	LINK, MASTER, 1845C SKIDSTEER	0.00
125446	LINK, MASTER, 1845C SKIDSTEER	0.00
125447	STOP, CABLE, 1845C SKIDSTEER	0.00
125448	HOSE, 1845C SKIDSTEER	0.00
125449	FILTER, OIL, 1845C SKIDSTEER	0.00
125450	BELT, 1845C SKIDSTEER	0.00
125451	TENSIONER, 1845C SKIDSTEER	0.00
125452	SPRING, 1845C SKIDSTEER	0.00
125453	SPRING, 1845C SKIDSTEER	0.00
125454	CLAMP, SPACER, 1845C SKIDSTEER	0.00
125455	CLIP, SHIELD	0.00
125456	SCREW, SOCKET HEAD, FORCE CIRC. PUMP TURBINE	6.00

125457	THERMOCOUPLE, FC STEAM PUMPS	2.00
125458	SPRING, TRIP RESET, TERRY TURBINES	1.00
125459	GASKET, FORCE CIRC. PUMP TURBINE	6.00
125460	GASKET, FORCE CIRC. PUMP TURBINE	2.00
125461	CANNISTER, FORCE CIRC. PUMP TURBINE	2.00
125462	TACHOMETER, DIGITAL, FC STEAM PUMPS	0.00
125463	COVER, EQUALIZING TANK, FORCE CIRC. PUMPS	2.00
125464	FLANGE, FORCE CIRC. PUMP TURBINE	4.00
125465	PLATE, ORIFICE, FORCE CIRC. PUMP TURBINE	4.00
125466	KEY, FORCE CIRC. PUMP TURBINE	2.00
125467	GEAR, DRIVEN SPUR, FORCE CIRC. PUMP TURBINE	2.00
125468	BREATHER, AIRMAZE, FORCE CIRC. PUMP TURBINE	2.00
125469	CONNECTOR, MALE 1/2, FORCE CIRC. PUMP TURBINE	8.00
125470	CONNECTOR, MALE, FORCE CIRC PUMP TURBINE	2.00
125471	PIN, COTTER 1-1/2, FORCE CIRC. PUMP TURBINE	1.00
125472	O-RING, FORCE CIRC. PUMP TURBINE	4.00
125473	ELBOW, MALE, FORCE CIRC. PUMP TURBINE	2.00
125474	ELBOW, MALE, FORCE CIRC. PUMP TURBINE	2.00
125475	PUMP, TUTHILL OIL, FORCE CIRC. PUMP TURBINE	2.00
125476	GEAR, SPUR DRIVING, FORCE CIRC. PUMP	2.00
125477	KEY, FORCE CIRC. PUMP TURBINE	2.00
125478	SCREW, CAP HX HD, TERRY TURBINE	5.00
125479	NUT, FORCE CIRC. PUMP TURBINE	2.00
125480	WASHER, LOCK, FORCE CIRC. PUMP TURBINE	16.00
125481	SCREW, SOCKET HD, FORCE CIRC. PUMP TURBINE	4.00
125482	CONNECTOR, PIPE MALE, FORCE CIRC. PUMP	2.00

	TURBINE	
125483	ELBOW, MALE PARKER 8-8, FORCE CIRC. PUMP TURBINE	4.00
125484	NIPPLE, PIPE, FORCE CIRC. PUMP TURBINE	4.00
125485	SCREW, SOCKET HD CAP, FORCE CIRC. PUMP TURBINE	8.00
125486	SCREW, SOCKET HD CAPS, FORCE CIRC. PUMP TURBINE	11.00
125487	SCREW, HX HD CAP, FORCE CIRC. PUMP TURBINE	8.00
125488	SCREW, HX HD, FORCE CIRC. PUMP TURBINE	4.00
125489	TUBING, SS 3/4X6-1/2', FORCE CIRC. PUMP TURBINE	2.00
125490	TUBING, SS 3/8 X1/2X10', FORCE CIRC. PUMP TURBINE	2.00
125491	TEE, THD, FORCE CIRC. PUMP TURBINE	3.00
125492	ELBOW, STREET, FORCE CIRC. PUMP TURBINE	2.00
125493	BUSHING, HEX, FORCE CIRC. PUMP TURBINE	4.00
125494	PLUG, PIPE, FORCE CIRC. PUMPS	2.00
125495	PLUG, PIPE, FORCE CIRC. PUMP TURBINE	2.00
125520	TUBING, SUFLEX ACRY FLEX F	1.00
125521	CYLINDER, VALTEK, TURBINE GENERATOR	0.00
125522	GASKET	0.00
125524	KIT, REBUILD, VALTEK ACTUATOR	1.00
125535	FILTER, AIR, TURBINE GENERATOR	6.00
125536	SUPPRESSOR, SURGE	2.00
125538	JOINT, EXPANSION, TURBINE BYPASS	1.00
125539	POSITIONER, BETA, TG V1 & V2	1.00
125540	PROXIMETER	1.00
125541	COUPLING, TURBINE	0.00
125542	WASHER, T/G	1.00
125543	TRANSDUCER	4.00
125544	CABLE, EXTENSION; 8MM	3.00
125545	NUT, T/G	1.00
125546	PAN, PIG, INDOOR	3.00
125547	FILTER, AIR, MCC & BAGHOUSE CONTROL ROOMS	0.00
125548	O-RING	0.00

125549	SEAL	0.00
125550	CONE, PACKING RING	0.00
125551	PACKING, RING SET	0.00
125567	KIT, REBUILD 3196MTX PUMPS	0.00
125568	KIT, REBUILD 3196MTX PUMPS	0.00
125569	RECTIFIER, FORWARD	3.00
125570	RECTIFIER, REVERSE	3.00
125571	O-RING	2.00
125572	SHAFT, FFVFB 6-300 IBS	0.00
125573	WASHER, DISCPOST, TURBINE GENERATOR	1.00
125574	BUSHING, 1.263 ID X 1.06 LG	0.00
125575	GASKET	0.00
125576	GASKET	0.00
125577	GASKET	0.00
125578	GASKET	0.00
125579	GASKET	0.00
125580	FILTER, SOLBERG T/G	26.00
125581	SEAL, OIL NATIONAL, TURBINE GENERATOR	4.00
125582	RELAY, SOLID STATE, LIQUID MOVER	1.00
125583	RING, RETAINING	0.00
125584	SHAFT, COUPLING, TG OIL PURIFIER	5.00
125585	HOLDER, ELECTRODE, LIQUID MOVER	0.00
125586	ELECTRODE, 1 FT, LIQUID MOVER	0.00
125587	ELECTRODE, 2 FT, LIQUID MOVER	0.00
125588	SHOE, INSTRUMENTED THRUST, TURBINE GENERATOR	0.00
125589	ASSEMBLY, THRUST BEARING, TURBINE	1.00
125590	SHOE PACKAGE, SPARE, TURBINE	0.00
125591	RING, BRASS	1.00
125592	RING, BRASS	1.00
125593	SPRING	0.00
125594	WASHER	5.00
125595	KEY	2.00
125596	BOLT, SHOULDER	2.00
125597	SHOE, INSTRUMENTED, TURBINE	1.00
125598	SHOE, INSTRUMENTED JOURNAL, TURBINE GENERATOR	0.00
125599	BUSHING, TURBINE GENERATOR	0.00
125600	ROD	0.00
125601	COLLAR, THRUST, TURBINE GENERATOR	0.00
125602	ROD, LIFT	0.00



125603	PIN, 8TH STAGE, TURBINE GENERATOR	0.00
125604	ROTOR, GROUNDING BRUSH	2.00
125605	BUSHING	0.00
125606	BUSHING	0.00
125607	ROD	1.00
125608	BUSHING	0.00
125609	WASHER "A", 8TH STAGE, TURBINE GENERATOR	0.00
125610	WASHER "B", 8TH STAGE, TURBINE GENERATOR	0.00
125611	POWER SUPPLY, TRICONIX, TURBINE	1.00
125612	WHEEL, INLET VALVE, TURBINE GENERATOR	1.00
125613	SLEEVE, YOKE	1.00
125614	KEY, HANDLE INLET VALVE	1.00
125615	NUT, HANDLE ISO VALVE	1.00
125616	SEAL, OIL	0.00
125617	SHOE, JOURNAL BEARING, TURBINE GENERATOR	1.00
125618	JOINT, EXPANSION, TURBINE GENERATOR	1.00
125619	GASKET, MANHOLE, TURBINE GENERATOR	1.00
125620	VALVE	0.00
125621	DEFLECTOR	0.00
125622	RING, RETAINING	0.00
125623	ELEMENT, FILTER, TURBINE OIL PURIFIER	3.00
125624	GASKET, TURBINE	0.00
125625	GASKET, LOW SPEED	0.00
125626	GASKET, INSPECTION COVER	0.00
125627	GASKET, PUMP	0.00
125628	GASKET, SPIRAL WOUND, ELEC. FORCE CIRC. PUMP	0.00
125629	GASKET, DISCHARGE	0.00
125630	BEARING, COVER	0.00
125631	FLANGE, TURBINE GENERATOR	1.00
125632	BLADE, 8TH STAGE, TURBINE GENERATOR	0.00
125633	FLANGE	1.00
125634	BAFFLE, HP & LP PACKING BAFFLES (SEE SPECS)	1.00
125635	BLADE, 8TH STAGE, TURBINE	74.00
125636	COUPLING, PUMP	0.00
125637	PUMP, LIQUID MOVER	1.00

125638	FILTER, CANNISTER, TURBINE GENERATOR	35.00
125639	FILTER, ULTIPOR, TG OIL PURIFIER	2.00
125640	SPRING, COMPRESSION, T&T VALVE	1.00
125641	RING, THRUST, T&T VALVE	1.00
125642	WASHER, THRUST, T&T VALVE	1.00
125643	SPRING, TRIP HOOK, T&T VALVE	1.00
125644	SPRING, COMPRESSION, T&T VALVE	1.00
125645	PAPER, CHART RECORDER	10.00
125646	SWITCH, LIMIT, T&T VALVE	1.00
125647	INSERT, COUPLING,	2.00
125648	COUPLING, LOVEJOY, TURBINE OIL PURIFIER	0.00
125649	COUPLING, LOVEJOY, TURBINE OIL PURIFIER	0.00
125650	GASKET	2.00
125651	RING, PISTON	2.00
125652	PACKING	3.00
125653	GASKET, T&T VALVE	2.00
125654	BOLT, T&T VALVE	4.00
125655	NUT, TURBINE GENERATOR	18.00
125656	NUT, TURBINE GENERATOR	2.00
125657	NUT, LOCK, TURBINE GENERATOR	1.00
125658	BEARING, THRUST, TURBINE	1.00
125659	FILTER, TG OIL PURIFIER	3.00
125660	MOTOR, TURNING GEAR, TURBINE GENERATOR	0.00
125661	BOLT	9.00
125662	LOCK, WASHER, TURBINE GENERATOR	6.00
125663	RING, PISTON; T/G	0.00
125664	RING, PISTON, T/G	2.00
125665	PIN, COTTER; T/G	1.00
125666	PIN, ROLL; T/G	2.00
125667	MOTOR, VAPOR EXTRACTOR, TURBINE GENERATOR	1.00
125668	O-RING	1.00
125669	KIT, SHIM	5.00
125670	PICK-UP, MAGNETIC SPEED, TURBINE GENERATOR	1.00
125671	GASKET, SPIRAL WOUND	1.00
125672	GASKET	1.00
125673	PACKING	1.00
125674	GASKET, COVER (PILOT VALVE)	1.00
125675	GASKET, BRG COVER (PILOT VALVE)	1.00

125676	SEAL, OIL	4.00
125677	DIODE	7.00
125678	RIBBON, STRIP THERMAL SENSING	3.00
125679	KIT, 36T MINOR CLUTCH REPAIR	0.00
125680	ACTUATOR, LINEAR, TURBINE GENERATOR	0.00
125681	JOINT, EXPANSION 14" TURBINE BYPASS	1.00
125682	VALVE, SAFETY, REBUILT EXTRACTION, TURBINE	1.00
125683	ANODE	0.00
125729	STUD, 304SS, CLEARWELL&TRANSFER PUMPS	9.00
125730	STUD, CLEARWELL&TRANSFER PUMPS	3.00
125731	SHAFT, W/O SLEEVE, TRANSFER PUMPS	0.00
125732	WASHER, CUTTING EDGE, KOMATSU LOADER	14.00
125733	BOLT, CUTTING EDGE, KOMATSU LOADER	14.00
125734	NUT, CUTTING EDGE, KOMATSU LOADER	4.00
125735	TUBE, TRANS COOLER, LOADERS	2.00
125736	FAN, RADIATOR, LOADERS	0.00
125737	SPIDER	0.00
125738	HOUSING, LOADERS	0.00
125739	EDGE, OUTSIDE CUTTING, KOMATSU LOADER	0.00
125740	EDGE, INSIDE CUTTING, KOMATSU LOADER	0.00
125741	TUBE, EXHAUST, LOADERS	2.00
125742	PIN, PIVOT, LOADERS	2.00
125743	ELEMENT, FUEL , 980F LOADER	4.00
125744	BULB, LIGHT, 980F LOADER	1.00
125745	FILTER, AIR, 980F LOADER	4.00
125746	ALARM, BACKUP, 980F LOADER	1.00
125747	V-BELT SET, SET OF THREE, 980F LOADER	0.00
125748	LIGHT, AMBER STROBE, 980F LOADER	1.00
125749	BULB, STROBE, 980F LOADER	3.00
125750	LENS, AMBER, 980F LOADER	1.00
125751	BLADE, FRONT WIPER	0.00
125752	BELT, ALT, 980F LOADER	0.00

125753	SWITCH, HEADLIGHT, 980F LOADER	1.00
125754	BLADE, REAR WIPER	0.00
125755	BULB, LIGHT, 980F LOADER	3.00
125756	ASSEMBLY, LIGHT, 980F LOADER	1.00
125757	ARM, FRONT WIPER	0.00
125758	NUT, PLOW BOLT, 980F LOADER	6.00
125759	BOLT, PLOW, 980F LOADER	7.00
125760	HORN, CONTACT BRUSH ASSEMBLY, CAPACITY	0.00
125761	KIT, HORN, CAPACITY	0.00
125762	VALVE, HYD ONE WAY, CAPACITY YARDTRUCK	1.00
125763	FILTER, HYDRAULIC, CAPACITY YARD TRUCK	1.00
125764	HORN, YALE FORKLIFT	1.00
125765	RADIO, CB, LOADERS	1.00
125894	SPROCKET, 15 TOOTH, CLARIFIER TANK	0.00
125895	IMPELLER, GOULD SUMP PUMP	2.00
125896	RELAY, 125VAC	18.00
125897	HOSE, WIRE 2000PSI, YARD TRACTOR	3.00
125898	BELT, YARD TRACTOR	6.00
125899	DRUM, BRAKE FRONT, YARD TRACTOR	2.00
125900	FITTING, HYDRAULIC, CAPACITY YARD TRUCK	0.00
125901	BELT, YARD TRACTOR	2.00
125902	VALVE, BRAKE, YARD TRACTOR	2.00
125903	SWITCH, YARD TRACTOR	5.00
125904	NUT, YARD TRACTOR	18.00
125905	NUT, LUG RH, YARD TRACTOR	14.00
125906	NUT, LUG LH, YARD TRACTOR	18.00
125907	NUT, YARD TRACTOR	14.00
125908	ELEMENT, YARD TRACTOR	5.00
125909	SPACER, YARD TRACTOR	2.00
125910	KIT, CAM, YARD TRACTOR	1.00
125911	HANDLE, YARD TRACTOR	1.00
125912	HANDLE, YARD TRACTOR	0.00
125913	CHAMBER, SERVICE, YARD TRACTOR	2.00
125914	HINGE, DOOR CLOSER, YARD TRACTOR	2.00
125915	SHAFT, CAM, RH, YARD TRACTOR	1.00
125916	SHAFT, CAM, LH, YARD TRACTOR	1.00
125917	VALVE;YARD TRACTOR	2.00
125918	VALVE, TRACTOR BRAKE, YARD TRACTOR	2.00

125919	SPACER, YARD TRACTOR	4.00
125920	ASSEMBLY, ROLLER, YARD TRACTOR	4.00
125921	NUT, YARD TRACTOR	4.00
125922	ROLLER, YARD TRACTOR	4.00
125923	SET, AIR HOSE, OTTAWA YARD TRACTOR	0.00
125924	CYLINDER, AIR, YARD TRACTOR	1.00
125925	FILTER, OIL, YARD TRACTOR	3.00
125926	FILTER, HYD., YARD TRACTOR	7.00
125927	VALVE, CONTROL, YARD TRACTOR	3.00
125928	FILTER, AIR, YARD TRACTOR	1.00
125929	CONNECTOR, AIR, YARD TRACTOR	1.00
125930	SWITCH, TOGGLE, CAPACITY YARD TRUCK	2.00
125931	BUSHING, STEEL, CAPACITY YARD TRUCK	2.00
125932	VALVE, CONTROL, CAPACITY YARD TRUCK	1.00
125933	PIN, BOOM PIVOT, CAPACITY YARD TRUCK	1.00
125934	WHEEL, 5TH, CAPACITY YARD TRUCK	1.00
125935	SWITCH, START, CAPACITY YARD TRUCK	0.00
125936	KNOB, CAPACITY YARD TRUCK	1.00
125937	VALVE, BRAKE, CAPACITY YARD TRUCK	0.00
125938	UNIT, OIL SENDING, CAPACITY YARD TRUCK	1.00
125939	SWITCH, REVERSE, CAPACITY YARD TRUCK	1.00
125940	VALVE, CABLE, CAPACITY YARD TRUCK	1.00
125941	END, TIE ROD, CAPACITY YARD TRUCK	1.00
125942	END, TIE ROD, CAPACITY YARD TRUCK	1.00
125943	MOTOR, HEATER, CAPACITY YARD TRUCK	1.00
125944	KIT, BRAKE SHOE REPAIR, YARD TRACTOR	2.00
125945	KIT, CAM EUCLID, YARD TRACTOR	1.00
125946	SHOE, LINED BRAKE SHOE REAR, YARD TRACTOR	4.00
125947	SHOE, BRAKE LINED FRONT, YARD TRACTOR	4.00

125948	DRUM, BRAKE, YARD TRACTOR	2.00
125949	RELAY, HORN, OTTAWA YARD TRACTOR	2.00
125950	PISTON, YARD TRACTOR	1.00
125954	FILTER, 14 X 20 X 2	5.00
125956	FILTER	28.00
125957	KNOB, DOOR	0.00
125958	BAG, 1 MICRON FILTER	7.00
125959	BAG, 5 MICRON FILTER	8.00
125960	FILTER, 16" X 20" X 1"	2.00
125961	FILTER, 20 X 25 X 4, PULPIT A/C	0.00
125962	FIXTURE, WESTINGHOUSE	0.00
125963	BULB, FLOURESCENT 4' (BOX OF 30)	0.00
125964	LAMP	62.00
125965	LAMP	0.00
125966	FILTER, PLEATED, 16X34X1	22.00
125967	FILTER, 18 X 20 X 2, CONTROL ROOM A/C	6.00
125968	FILTER, CARBON BLOCK, ADMIN RO UNIT	0.00
125969	FILTER, 4TH FLOOR OFFICE	2.00
125970	MEMBRANE, TFC, ADMIN RO UNIT	1.00
125971	FILTER, INLINE CARBON, ADMIN RO UNIT	0.00
125972	FILTER, SEDIMENT, ADMIN RO UNIT	0.00
125973	BELT, WELDING HOOD BLOWER	3.00
125982	BOLT, CHAIN	0.00
125983	LATCH	0.00
16647	BUSHING,TURBINE GENERATOR	1.00
19901	BELT,V,A60	8.00
22127	BELT,V,B50	2.00
28695	VARIABLE SPEED DRIVE	1.00
43126	GEARBOX,	0.00
68547	MODULE,POWER SUPPLY,	0.00
9303023231	ELEMENT,FILTER,PORTABLE HYDRAULIC CART	3.00

## **APPENDIX 2-3**

### **PREVENTATIVE MAINTENANCE WORK ORDERS**

Task No.	Description	Equipment No.	FREQ	CAL	UNIT	Equipment Description
AED-01-SAFETY	AED MONTHLY INSPECTION -	670-SAFETY	1	M		SAFETY EQUIPMENT
AED-02-SAFETY	REPLACE AED 9V BATTERY -	670-SAFETY	1	Y		SAFETY EQUIPMENT
AED-03-SAFETY	REPLACE AED BATTERY PACK -	670-SAFETY	5	Y		SAFETY EQUIPMENT
AED-04-SAFETY	REPLACE AED PATIENT PADS -	670-SAFETY	2	Y		SAFETY EQUIPMENT
EL0005-SAFETY	TEST EMERGENCY LIGHTS -	845-100	3	M		FACILITY LIGHTING
ELEC GLOVES-SAFETY	ANNUAL ELEC WORK GLOVE CERTIFICATION	670-SAFETY	1	Y		SAFETY EQUIPMENT
EWI-01-SAFETY	INSPECT EYE WASH STATIONS-	810-ZZ-HR	1	W		BUILDING,HOGGER ROOM
FIRESYS-1-SAFETY	MONTHLY FIRE SYSTEM INSPECTION - SCAN TO SR-38	810-ZF-1	1	M		BUILDINGS, FIRE PROTECTION
FIRESYS-2	DRAIN TIPPING FLOOR FIRE CANNONS	810-ZG-1	1	Y		BUILDINGS, TIPPING FLOOR AREA
FIRESYS-2-SAFETY	ANNUAL FIRE SYSTEM INSPECTION - SCAN TO SR-38	670-SAFETY	1	Y		SAFETY EQUIPMENT
FIRESYS-3	PLACE TIPPING FLOOR WATER CANNONS BACK IN SERVICE	810-ZG-1	1	Y		BUILDINGS, TIPPING FLOOR AREA
FIRESYS-3-SAFETY	FIRE ALARM SYSTEM TEST - SCAN TO SR-41	810-ZF-1	6	M		BUILDINGS, FIRE PROTECTION
FT-001	FORK TRUCK DAILY INSPECTION	920-VH-FT-1	1	D		FORKTRUCK, #1
GRINDERGUARD-SAFETY	CHECK AND ADJUST SHOP GRINDER GUARDS	810-ZS-1	1	M		BUILDINGS, MAINTENANCE SHOP
IN0001-SAFETY	INSPECT PORTABLE ELECTRICAL EQUIPMENT	810-ZS-1	3	M		BUILDINGS, MAINTENANCE SHOP
LADINSP1	QUARTERLY LADDER INSPECTION-	810-ZB-1	3	M		BUILDINGS, BOILER ROOM
PQD-01-SAFETY	PERFORM QUARTERLY DRILL-SCAN TO RR36	GAR	3	M		GENERAL ADMINISTRATIVE REQUIREMENTS
PTL-SAFETY	PERFORM TRAINING FOR LEGIONELLA	GAR	0	Y		GENERAL ADMINISTRATIVE REQUIREMENTS
PUTRUCKINSP	PERFORM ANNUAL DOT INSPECTION	950-VH-F250-1	1	Y		TRUCK,FORD F250 PICKUP
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-C-SHIFT	1	M		OPERATIONS DEPARTMENT C-SHIFT
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-D-SHIFT	1	M		OPERATIONS DEPARTMENT D-SHIFT
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-ZO-1	1	M		BUILDINGS, OFFICE AREAS
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-B-SHIFT	1	M		OPERATIONS DEPARTMENT B-SHIFT
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-A-SHIFT	1	M		OPERATIONS DEPARTMENT A-SHIFT
RESPINSPCT-SAFETY	MONTHLY RESPIRATOR INSPECTION -	810-ZS-1	1	M		BUILDINGS, MAINTENANCE SHOP
RVW-LIP-SAFETY	REVIEW LEGIONELLA IMPLEMENTATION PLAN	GAR	3	M		GENERAL ADMINISTRATIVE REQUIREMENTS
RVW-LMP-SAFETY	REVIEW LEGIONELLA MANAGEMENT PLAN	GAR	1	Y		GENERAL ADMINISTRATIVE REQUIREMENTS
RVW-LRA-SAFETY	REVIEW LEGIONELLA RISK ASSESSMENT	GAR	1	Y		GENERAL ADMINISTRATIVE REQUIREMENTS
SAFETY1-SAFETY	INVENTORY FIRST AID CABINETS -	810-ZB-1	1	M		BUILDINGS, BOILER ROOM
SFTYWLK-SAFETY	PREFORM MONTHY SAFETY WALKDOWN	810-ZB-1	1	M		BUILDINGS, BOILER ROOM
SLINGS-SAFETY	MONTHLY SLING INSPECTION	810-ZS-1	1	M		BUILDINGS, MAINTENANCE SHOP
SPKT-1-SAFETY	SPILL KIT INVENTORY-	810-ZB-1	1	M		BUILDINGS, BOILER ROOM
TGSPTEST	TURBINE GENERATOR OVERSPEED TEST	710-TG-1	6	M		TURBINE, #1 GENERATOR
BACOP3	PERFORM SEMI ANNUAL INSPECTION	410-BAC-1	1	Y		COOLER, BALTIMORE AIRCOIL
BACOP5	ON LINE CLEANING	410-BAC-1	6	M		COOLER,BALTIMORE:BCW
BACOP6	SHOCK-DOSE BAC	410-BAC-1	6	M		COOLER, BALTIMORE AIRCOIL
BACOP7	PERFORM ANNUAL CONTRACT CLEANING OF BAC	410-BAC-1	1	Y		COOLER, BALTIMORE AIRCOIL
BIO-COUNT	WEEKLY BIO-COUNT TEST	410-BAC-1	1	FRI		COOLER,BALTIMORE AIRCOIL
CC1000	Replace crane cab air conditioner filter.	520-FD-CR-1	1	SAT		CRANE,#1 EAST REFUSE FEED CRANE
FLT-LCKER	QUARTERLY FLITER CHANGE LOCKER ROOM	810-ZZ-LCKRM	3	M		BUILDING,EMPLOYEES LOCKER ROOM
HVAC FILTER	CHANGE HVAC FILTER	850-OFFICE-ADMI	3	M		HVAC, ADMINISTRATION BUILDING
HVAC FILTER	CHANGE HVAC FILTER	850-OFFICE-4TH	1	M		HVAC, 4TH FLOOR OFFICES



MGSVIN	GAS SHUT OFF VALVE INSPECTION	128-BL-BUR-1	1	Y	BURNER, #1 BOILER
MGSVIN	GAS SHUT OFF VALVE INSPECTION	228-BL-BUR-2	1	Y	BURNER, #2 BOILER
WCIN1Y	YEARLY CRANE INSPECTION	510-FD-CR-2	1	Y	CRANE,#2 WEST REFUSE FEED CRANE
WCIN1Y	YEARLY CRANE INSPECTION	520-FD-CR-1	1	Y	CRANE,#1 EAST REFUSE FEED CRANE
WCIN1Y	YEARLY CRANE INSPECTION	540-TG-CR1	1	Y	CRANE, #1 TURBINE GENERATOR

Task No.	Description	Equipment No.	FREQ	CAL UNIT	Equipment Description
CEM-ANNUAL-1-INLET	ANNUAL CEM PM UNIT #1 INLET	630-1-INLET-ROSEMONT-9100	1	Y	#1 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-ANNUAL-1-INLET	ANNUAL CEM PM UNIT #1 INLET	630-1-INLET-SEC-CONDITIONER	1	Y	#1 BLR INLET SAMP PROBE AND CONDITIONER
CEM-ANNUAL-1-INLET	ANNUAL CEM PM UNIT #1 INLET	630-1-INLET-O2	1	Y	#1 BLR INLET O2 ANALYZER
CEM-ANNUAL-1-OUTLET	ANNUAL CEM PM UNIT #1 OUTLET	630-1-OUTLET-MIR9000	1	Y	#1 BLR OUTLET MIR9000 ANALYZER
CEM-ANNUAL-1-OUTLET	ANNUAL CEM PM UNIT #1 OUTLET	630-1-OUTLET-SEC-CONDITIONER	1	Y	#1 BLR OUTLET SAMP PROBE AND CONDITIONER
CEM-ANNUAL-2-INLET	ANNUAL CEM PM UNIT #2 INLET	630-2-INLET-O2	1	Y	#2 BLR INLET O2 ANALYZER
CEM-ANNUAL-2-INLET	ANNUAL CEM PM UNIT #2 INLET	630-2-INLET-ROSEMONT-9100	1	Y	#2 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-ANNUAL-2-INLET	ANNUAL CEM PM UNIT #2 INLET	630-2-INLET-SEC-CONDITIONER	1	Y	#2 BLR INLET SAMP PROBE AND CONDITIONER
CEM-ANNUAL-2-OUTLET	ANNUAL CEM PM UNIT #2 OUTLET	630-2-OUTLET-MIR9000	1	Y	#2 BLR OUTLET MIR9000 ANALYZER
CEM-ANNUAL-2-OUTLET	ANNUAL CEM PM UNIT #2 OUTLET	630-2-OUTLET-SEC-CONDITIONER	1	Y	#2 BLR OUTLET SAMP PROBE AND CONDITIONER
CEM-DAILY	DAILY CEM CHECKS- SCAN TO RR35	630-CEM-SYS	1	MON	MONITOR, CONTINUOUS EMISSION
CEM-MONTHLY-1-INLET	MONTHLY CEM PM UNIT #1 INLET - SCAN TO RR-40	630-1-INLET-SEC-CONDITIONER	1	M	#1 BLR INLET SAMP PROBE AND CONDITIONER
CEM-MONTHLY-1-INLET	MONTHLY CEM PM UNIT #1 INLET - SCAN TO RR-40	630-1-INLET-O2	1	M	#1 BLR INLET O2 ANALYZER
CEM-MONTHLY-1-INLET	MONTHLY CEM PM UNIT #1 INLET - SCAN TO RR-40	630-1-INLET-ROSEMONT-9100	1	M	#1 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-MONTHLY-1-OUT	MONTHLY CEM PM UNIT #1 OUTLET - SCAN TO RR-40	630-1-OUTLET-MIR9000	1	M	#1 BLR OUTLET MIR9000 ANALYZER
CEM-MONTHLY-1-OUT	MONTHLY CEM PM UNIT #1 OUTLET - SCAN TO RR-40	630-1-OUTLET-SEC-CONDITIONER	1	M	#1 BLR OUTLET SAMP PROBE AND CONDITIONER
CEM-MONTHLY-2-INLET	MONTHLY CEM PM UNIT #2 INLET - SCAN TO RR-40	630-2-INLET-O2	1	M	#2 BLR INLET O2 ANALYZER
CEM-MONTHLY-2-INLET	MONTHLY CEM PM UNIT #2 INLET - SCAN TO RR-40	630-2-INLET-ROSEMONT-9100	1	M	#2 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-MONTHLY-2-INLET	MONTHLY CEM PM UNIT #2 INLET - SCAN TO RR-40	630-2-INLET-SEC-CONDITIONER	1	M	#2 BLR INLET SAMP PROBE AND CONDITIONER
CEM-MONTHLY-2-OUT	MONTHLY CEM PM UNIT #2 OUTLET - SCAN TO RR-40	630-2-OUTLET-MIR9000	1	M	#2 BLR OUTLET MIR9000 ANALYZER
CEM-MONTHLY-2-OUT	MONTHLY CEM PM UNIT #2 OUTLET - SCAN TO RR-40	630-2-OUTLET-SEC-CONDITIONER	1	M	#2 BLR OUTLET SAMP PROBE AND CONDITIONER
CEM-QTRLY-1-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #1 - SCAN TO RR-	630-1-INLET-O2	3	M	#1 BLR INLET O2 ANALYZER
CEM-QTRLY-1-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #1 - SCAN TO RR-	630-1-INLET-ROSEMONT-9100	3	M	#1 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-QTRLY-1-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #1 - SCAN TO RR-	630-1-INLET-SEC-CONDITIONER	3	M	#1 BLR INLET SAMP PROBE AND CONDITIONER
CEM-QTRLY-1-OUTLET	QUARTERLY/SEMI ANNUAL CEM OUTLET PM UNIT #1 - SCAN TO R	630-1-OUTLET-MIR9000	3	M	#1 BLR OUTLET MIR9000 ANALYZER
CEM-QTRLY-1-OUTLET	QUARTERLY/SEMI ANNUAL CEM OUTLET PM UNIT #1 - SCAN TO R	630-1-OUTLET-SEC-CONDITIONER	3	M	#1 BLR OUTLET SAMP PROBE AND CONDITIONER
CEM-QTRLY-2-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #2 - SCAN TO RR-	630-2-INLET-ROSEMONT-9100	3	M	#2 BLR INLET ROSEMONT 9100 SAMP ANALYZER
CEM-QTRLY-2-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #2 - SCAN TO RR-	630-2-INLET-SEC-CONDITIONER	3	M	#2 BLR INLET SAMP PROBE AND CONDITIONER
CEM-QTRLY-2-INLET	QUARTERLY/SEMI ANNUAL CEM INLET PM UNIT #2 - SCAN TO RR-	630-2-INLET-O2	3	M	#2 BLR INLET O2 ANALYZER
CEM-QTRLY-2-OUTLET	QUARTERLY/SEMI ANNUAL CEM OUTLET PM UNIT #2 - SCAN TO R	630-2-OUTLET-MIR9000	3	M	#2 BLR OUTLET MIR9000 ANALYZER
CEM-QTRLY-2-OUTLET	QUARTERLY/SEMI ANNUAL CEM OUTLET PM UNIT #2 - SCAN TO R	630-2-OUTLET-SEC-CONDITIONER	3	M	#2 BLR OUTLET SAMP PROBE AND CONDITIONER
CLTFTRENCH	CLEAN TIPPING FLOOR TRENCH	810-ZG-1	6	M	BUILDINGS, TIPPING FLOOR AREA
GBURNER01	WEEKLY GAS BURNER TEST	128-BL-BUR-1	7	D	BURNER, #1 BOILER
GBURNER01	WEEKLY GAS BURNER TEST	228-BL-BUR-2	7	D	BURNER, #2 BOILER
PAC- DROP TEST	PERFORM DROP TEST ON PAC SYSTEMS	640-SF-24A	3	M	FEEDER, SCREW, PAC #1
PAC- DROP TEST	PERFORM DROP TEST ON PAC SYSTEMS	640-SF-24B	3	M	FEEDER, SCREW, PAC #2
PAC- DROP TEST	PERFORM DROP TEST ON PAC SYSTEMS	640-SF-24C	3	M	FEEDER, SCREW, PAC #3
QRTASH	PREFORM MONTHLY ASH SAMPLING	810-ZA-1	1	M	BUILDINGS, ASH LOAD-OUT AREA
RVW-LLB	PERFORM QUARTERLY REVIEW OF LOG BOOK	GAR	3	M	GENERAL ADMINISTRATIVE REQUIREMENTS
SILO BAGHOUSE	SILO BAGHOUSE PM	640-LS-2	3	M	SILO,HYDRATED LIME
SILO LEVEL	CALIBRATE LIME SILO LEVEL	640-LS-2	1	Y	SILO,HYDRATED LIME
SILO-LEVEL-1	LIME SILO SOUNDING	640-PACS-1	1	M	SILO, POWDERED ACTIVATED CARBON
SILO-LEVEL-1	LIME SILO SOUNDING	640-LS-2	1	WED	SILO,HYDRATED LIME
SILO-LEVEL-2	CARBON SILO LEVEL SOUNDING	640-PACS-1	3	M	SILO, POWDERED ACTIVATED CARBON

TANK INSPECTION 5YR	PERFORM REQUIRED 5 YEAR IN-SERVICE TANK INSPECTION	899-TK-1	5	Y	TANK, #1 FUEL OIL
TRENCHCLEAN	CLEAN 66'6 TRENCH	001-APT	3	M	BUILDING
WKL-ASH-TRENCH	WEEKLY ASH AISLE TRENCH CLEANING	810-ZA-1	0	SUN	BUILDINGS, ASH LOAD-OUT AREA
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-2	6	M	COMPARTMENT, #1-2 BAGHOUSE
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-5	6	M	COMPARTMENT, # 1-5 BAGHOUSE
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-6	6	M	COMPARTMENT, # 1-6 BAGHOUSE
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-4	6	M	COMPARTMENT, # 1-4 BAGHOUSE
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-1	6	M	COMPARTMENT, #1-1 BAGHOUSE
BG0001	BAGHOUSE INSPECTION	185-BGH-CP-1-3	6	M	COMPARTMENT, # 1-3 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-1	6	M	COMPARTMENT, # 2-1 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-2	6	M	COMPARTMENT, # 2-2 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-3	6	M	COMPARTMENT, # 2-3 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-4	6	M	COMPARTMENT, # 2-4 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-5	6	M	COMPARTMENT, # 2-5 BAGHOUSE
BG0002	BAGHOUSE INSPECTION	285-BGH-CP-2-6	6	M	COMPARTMENT, # 2-6 BAGHOUSE
DIKES-01	WEEKLY DIKE INSPECTION AND PUMPING-	SCAN T 810-ZZ-1	1	TUE	BUILDINGS, GENERAL GROUNDS
tankinsp	Monthly Tank Inspection	899-TK-1	1	M	TANK, #1 FUEL OIL

PRIORITY	Task No.	Description	Equipment No.	FREQ	CAL UNIT	Equipment Description
1	319602	VIBRATION INSPECTION	425-CD-P-5A	3	M	PUMP, #5A CONDENSATE
1	319602	VIBRATION INSPECTION	425-CD-P-5B	3	M	PUMP, #5B CONDENSATE
1	319602	VIBRATION INSPECTION	810-ZB-1	3	M	BUILDINGS, BOILER ROOM
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	430-FC-P-3B-M	6	M	MOTOR, #3B FORCE CIRC. PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	485-ACC-FM-3	6	M	MOTOR, #3 ACC TUBE BUNDLE FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	485-ACC-FM-2	6	M	MOTOR, #2 ACC TUBE BUNDLE FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	485-ACC-FM-1	6	M	MOTOR, #1 ACC TUBE BUNDLE FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	485-ACC-FM-4	6	M	MOTOR,#4 ACC TUBE BUNDLE FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	450-DW-PM-1	6	M	MOTOR,DEMIN WATER PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	430-FC-P-3A-M	6	M	MOTOR, #3A FORCE CIRC. PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	425-CD-PM-5B	6	M	MOTOR, #5B CONDENSATE PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	450-DW-PM-2	6	M	MOTOR,DEMIN WATER PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	510-FD-CRBM-2-1	3	M	MOTOR, #2 CRANE, #1 BRIDGE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	710-TG-ACLM-1	6	M	MOTOR, TG AUX LUB OIL PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	520-FD-CRTM-1	3	M	MOTOR, #1 CRANE TROLLEY
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	520-FD-CRHM-1	3	M	MOTOR, #1 CRANE HOLD/HOIST
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	520-FD-CRCM-1	3	M	MOTOR, #1 CRANE CLOSING
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	520-FD-CRBM-1-2	3	M	MOTOR, #1 CRANE, #2 BRIDGE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	520-FD-CRBM-1-1	3	M	MOTOR, #1 CRANE, #1 BRIDGE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	510-FD-CRTM-2	3	M	MOTOR, #2 CRANE TROLLEY
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	510-FD-CRHM-2	3	M	MOTOR, #2 CRANE HOLD/HOIST
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	510-FD-CRBM-2-2	3	M	MOTOR, #2 CRANE #2 BRIDGE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	485-ACC-FM-5	6	M	MOTOR,#5 ACC TUBE BUNDLE FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	510-FD-CRCM-2	3	M	MOTOR, #2 CRANE CLOSING
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	215-HP-2-3-M	6	M	MOTOR, #1-4 HYDRAULIC PUMP COMB
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	215-HP-2-1-M	6	M	MOTOR, #1-3 HYDRAULIC PUMP RAM
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	225-BL-TGM-2	6	M	MOTOR, #2 BLR. TRAVELING GRATE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	190-SA-CONV-1-M	6	M	MOTOR, #1 SIFTING ASH CONVEYOR
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	115-HP-1-3-M	6	M	MOTOR, #1-2 HYDRAULIC PUMP COMB
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	185-BGH-RAFM-1-1	6	M	MOTOR, #1-1 BGH REVERSE AIRFAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	175-FA-IDM-1	6	M	MOTOR, #1 INDUCED DRAFT FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	165-CA-FDM-1	6	M	MOTOR, #1 FORCE DRAFT FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	128-F-RC-BUR-1	6	M	FAN,BOILER BURNER #1
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	125-BL-TGM-1	6	M	MOTOR, #1 BLR. TRAVELING GRATE
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	425-ACC-PM-6B	6	M	MOTOR, #6B COND FORWARDING PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	115-HP-1-1-M	6	M	MOTOR, #1-1 HYDRAULIC PUMP RAM
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	425-ACC-PM-6A	6	M	MOTOR, #6A COND FORWARDING PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	420-BFW-P-2-M	6	M	MOTOR, #1B BLR FEED WATER PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	420-BFW-P-1-M	6	M	MOTOR, #1A BLR FEED WATER PUMP
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	410-BC-P-13B-M	6	M	MOTOR, #13B BRG. COOLING WATER
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	228-F-RC-BUR-2	6	M	FAN,BOILER BURNER #2
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	410-BC-P-13A-M	6	M	MOTOR, #13A BRG. COOLING WATER
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	265-CA-FDM-2	6	M	MOTOR, #2 FORCE DRAFT FAN

Priority 1:  
 Loss of  
 piece of  
 equipment

1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	275-FA-IDM-2	6	M	MOTOR, #2 INDUCED DRAFT FAN
1	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	285-BGH-RAFM-2-1	6	M	MOTOR, #2-1 BGH REVERSE AIRFAN
1	BACLU1	WATER PUMP MOTOR BEARING LUBE	410-BAC-1	1	Y	COOLER,BALTIMORE:BCW
1	BACLU2	SHAFT BEARING LUBRICATION	410-BAC-1	3	M	COOLER,BALTIMORE:BCW
1	BACLU3	MONTHLY BEARING INSPECTION	410-BAC-1	1	M	COOLER,BALTIMORE:BCW
1	BACMA1	BEARING COLLAR INSPECTION	410-BAC-1	6	M	COOLER,BALTIMORE:BCW
1	BBLU01	BOILER BURNER SERVICE	128-BL-BUR-1	6	M	BURNER, #1 BOILER
1	BBLU01	BOILER BURNER SERVICE	228-BL-BUR-2	6	M	BURNER, #2 BOILER
1	BCWSHIFT	SHIFT BCW PUMPS	410-BC-P-13B	1	W	PUMP, #13B BEARING COOLING
1	BCWSHIFT	SHIFT BCW PUMPS	410-BC-P-13A	0	D	PUMP, #13A BEARING COOLING
1	BFPSHIFT	BI-WEEKLY BOILER FEED PUMP ROTATIO	420-BFW-P-1	2	W	PUMP, #1A ELECTRIC BOILER FEED
1	BFPSHIFT	BI-WEEKLY BOILER FEED PUMP ROTATIO	420-BFW-P-2	0		PUMP, #1B ELECTRIC BOILER FEED
1	CAT980D	CAT 980 LOADER DAILY INSPECTION	901-VH-FD-FEL-3	1	D	LOADER, CAT 980F
1	CCT-001	CHECK COMBUSTOR TACHOMETER	120-RC-1	7	D	COMBUSTER, # 1 ROTARY
1	CCT-001	CHECK COMBUSTOR TACHOMETER	220-RC-2	1	W	COMBUSTER, #2 ROTARY
1	CONDSHIFT	BI-WEEKLY CONDSATE PUMP ROTATION	425-CD-P-5A	2	W	PUMP, #5A CONDENSATE
1	CONDSHIFT	BI-WEEKLY CONDSATE PUMP ROTATION	425-CD-P-5B	0		PUMP, #5B CONDENSATE
1	DWPLU1	DEMIN WATER PUMP SERVICE	450-DW-P-1	1	Y	PUMP,DEMIN WATER
1	DWPLU1	DEMIN WATER PUMP SERVICE	450-DW-P-2	1	Y	PUMP,DEMIN WATER
1	EL0002	INSPECT BATTERIES	465-ELEC-DIST	3	M	PLANT ELECTRICAL DISTRIBUTION SYSTEM
1	EL0003	INSPECT DC POWER SUPPLY	465-ELEC-DIST	3	M	PLANT ELECTRICAL DISTRIBUTION SYSTEM
1	FCIN1Y	ANNUAL BYRO JACKSON PUMP INSP.	430-FC-P-3B	1	Y	PUMP, #3B ELEC.FORCE CIRCULATI
1	FCIN1Y	ANNUAL BYRO JACKSON PUMP INSP.	430-FC-P-4A	1	Y	PUMP, #4A TURBINE FORCE CIRC.
1	FCIN1Y	ANNUAL BYRO JACKSON PUMP INSP.	430-FC-P-3A	1	Y	PUMP, #3A ELEC.FORCE CIRCULATI
1	FCIN1Y	ANNUAL BYRO JACKSON PUMP INSP.	430-FC-P-4B	1	Y	PUMP, #4B TURBINE FORCE CIRC.
1	FDIN01	SIX MONTH ROTOR INSPECTION	165-CA-FD-1	6	M	FAN, #1 FORCE DRAFT
1	FDIN01	SIX MONTH ROTOR INSPECTION	265-CA-FD-2	6	M	FAN, #2 FORCE DRAFT
1	FR0001	RETURN FILTER REPLACEMENT	215-HP-HU-2	6	M	UNIT, #2 HYDRAULIC RESERVOIR
1	FR0001	RETURN FILTER REPLACEMENT	115-HP-HU-1	6	M	UNIT, #1 HYDRAULIC RESERVOIR
1	GEN002	SIX MONTH GENERATOR INSPECTION	720-TG-G-1	6	M	GENERATOR, #1 TURBINE
1	GEN003	YEARLY GENERATOR INSPECTION	720-TG-G-1	5	Y	GENERATOR, #1 TURBINE
1	HF-001	HYD RETURN FILTER REPLACEMENT	115-HP-HU-1	6	M	UNIT, #1 HYDRAULIC PUMP
1	HF-001	HYD RETURN FILTER REPLACEMENT	215-HP-HU-2	6	M	UNIT, #2 HYDRAULIC PUMP RESERV
1	HF-004	HYD COMBUSTER FILTER REPLACEME	215-HP-HU-2	6	M	UNIT, #2 HYDRAULIC PUMP RESERV
1	HF-004	HYD COMBUSTER FILTER REPLACEME	115-HP-HU-1	6	M	UNIT, #1 HYDRAULIC PUMP
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120A	1	W	VALVE, #2-1 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120F	1	W	VALVE, #2-6 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120E	1	W	VALVE, #2-5 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120D	1	W	VALVE, #2-4 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120B	1	W	VALVE, #2-2 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120F	1	W	VALVE, #1-6 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120E	1	W	VALVE, #1-5 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120D	1	W	VALVE, #1-4 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120C	1	W	VALVE, #1-3 C.A. FLOW CONTROL

1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120B	1	W	VALVE, #1-2 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-1120A	1	W	VALVE, #1-1 C.A. FLOW CONTROL
1	IDO-01	INSPECT DAMPER OPERATION	460-FCV-2120C	1	W	VALVE, #2-3 C.A. FLOW CONTROL
1	IN0005	WEEKLY CRANE AND GRAPPLE INSP.	520-FD-CRG-1	1	W	GRAPPLE, #1 MSW CRANE EAST
1	IN0005	WEEKLY CRANE AND GRAPPLE INSP.	510-FD-CRG-2	1	W	GRAPPLE, #2 MSW CRANE WEST
1	IN0006	WEEKLY DRAG CHAIN INSPECTION	190-BA-CONV-1	2	W	BOTTOM ASH CONVEYOR #1
1	IN0006	WEEKLY DRAG CHAIN INSPECTION	190-SA-CONV-1	2	W	CONVEYOR, #1 SIFTING ASH
1	IN0006	WEEKLY DRAG CHAIN INSPECTION	290-BA-CONV-2	2	W	BOTTOM ASH CONVEYOR #2
1	IN0006	WEEKLY DRAG CHAIN INSPECTION	290-SA-CONV-2	2	W	CONVEYOR, #2 SIFTING ASH
1	IN0007	MONTHLY TRAVELLING GRATE INSP.	225-BL-TG-2	1	M	GRATE, #2 BLR. TRAVELING GRATE
1	IN0007	MONTHLY TRAVELLING GRATE INSP.	125-BL-TG-1	1	M	GRATE, #1 BLR. TRAVELING GRATE
1	IN0013	THREE MONTH END LOADER SERVICE		0		
1	IN0014	SIX MONTH END LOADER SERVICE		0		
1	IN0015	YEARLY END LOADER SERVICE		0		
1	IN0016	TWO YEAR END LOADER SERVICE		0		
1	IN0022	THREE MONTH DRYER INSPECTION	405-AC-AD-2	0	M	DRYER, #2 PLANT AIR
1	IN0023	SIX MONTH DRYER INSPECTION	405-AC-AD-2	6	M	DRYER, #2 PLANT AIR
1	IN0024	YEARLY DRYER INSPECTION	405-AC-AD-2	1	Y	DRYER, #2 PLANT AIR
1	IR0001	PLANT MCC THERMOGRAPHY INSPECTIO	810-ZB-1	1	Y	BUILDINGS, BOILER ROOM
1	LU0005	INSPECT GEAR CASE CLOSING	510-FD-CRCR-2	3	M	REDUCER, #2 CRANE CLOSING SPEE
1	LU0005	INSPECT GEAR CASE CLOSING	520-FD-CRCR-1	3	M	REDUCER, #1 CRANE CLOSING SPEE
1	LU0006	INSPECT GEAR CASE HOLDING	510-FD-CRHR-2	3	M	REDUCER, #2 CRANE HOIST SPEED
1	LU0006	INSPECT GEAR CASE HOLDING	520-FD-CRHR-1	3	M	REDUCER, #1 CRANE HOIST SPEED
1	LU0009	GREASE PACK TROLLEY COUPLING	510-FD-CRTR-2	1	Y	REDUCER, #2 CRANE TROLLEY SPEE
1	LU0009	GREASE PACK TROLLEY COUPLING	520-FD-CRTR-1	1	Y	REDUCER, #1 CRANE TROLLEY SPEE
1	LU-001	CRANE LUBRICATION	520-FD-CR-1	1	Y	CRANE,#1 EAST REFUSE FEED CRANE
1	LU-001	CRANE LUBRICATION	510-FD-CR-2	1	Y	CRANE,#2 WEST REFUSE FEED CRANE
1	LU0013	GREASE BRIDGE WHEELS	510-FD-CR-2	3	M	CRANE,#2 WEST REFUSE FEED CRANE
1	LU0013	GREASE BRIDGE WHEELS	520-FD-CR-1	3	M	CRANE,#1 EAST REFUSE FEED CRANE
1	LU0015	GREASE FAN BEARINGS	185-BGH-RAF-1-1	3	M	FAN, # 1-1 BGH REVERSE AIR
1	LU0015	GREASE FAN BEARINGS	285-BGH-RAF-2-1	3	M	FAN, #2-1 BGH REVERSE AIR
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	245-BL-SB-2-2	3	M	SOOTBLOWER, #2-2 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	245-BL-SB-2-1	3	M	SOOTBLOWER, #2-1 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	245-BL-SB-2-4	3	M	SOOTBLOWER, #2-4 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	145-BL-SB-1-4	3	M	SOOTBLOWER, #1-4 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	145-BL-SB-1-3	3	M	SOOTBLOWER, #1-3 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	145-BL-SB-1-2	3	M	SOOTBLOWER, #1-2 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	145-BL-SB-1-1	3	M	SOOTBLOWER, #1-1 RETRACTABLE
1	LU0017	GREASE IK-4M CAM ARM AND POPPET V	245-BL-SB-2-3	3	M	SOOTBLOWER, #2-3 RETRACTABLE
1	LU0018	INSPECT GEARCASE	245-BL-SB-2-1	6	M	SOOTBLOWER, #2-1 RETRACTABLE
1	LU0018	INSPECT GEARCASE	245-BL-SB-2-4	6	M	SOOTBLOWER, #2-4 RETRACTABLE
1	LU0018	INSPECT GEARCASE	245-BL-SB-2-2	6	M	SOOTBLOWER, #2-2 RETRACTABLE
1	LU0018	INSPECT GEARCASE	145-BL-SB-1-4	6	M	SOOTBLOWER, #1-4 RETRACTABLE
1	LU0018	INSPECT GEARCASE	145-BL-SB-1-3	6	M	SOOTBLOWER, #1-3 RETRACTABLE

1	LU0018	INSPECT GEARCASE	145-BL-SB-1-2	6	M	SOOTBLOWER, #1-2 RETRACTABLE
1	LU0018	INSPECT GEARCASE	145-BL-SB-1-1	6	M	SOOTBLOWER, #1-1 RETRACTABLE
1	LU0018	INSPECT GEARCASE	245-BL-SB-2-3	6	M	SOOTBLOWER, #2-3 RETRACTABLE
1	LU0033	GREASE END SHAFT BEARING	120-RC-1	6	M	COMBUSTER, # 1 ROTARY
1	LU0033	GREASE END SHAFT BEARING	220-RC-2	6	M	COMBUSTER, #2 ROTARY
1	LU0043	COAT DRIVE CHAIN	120-RC-1	1	Y	COMBUSTER, # 1 ROTARY
1	LU0043	COAT DRIVE CHAIN	220-RC-2	1	Y	COMBUSTER, #2 ROTARY
1	LU0044	GREASE DRIVE SPROCKET BRGS.	220-RC-2	6	M	COMBUSTER, #2 ROTARY
1	LU0044	GREASE DRIVE SPROCKET BRGS.	120-RC-1	6	M	COMBUSTER, # 1 ROTARY
1	LU0046	REPLACE OIL IN GOVERNOR	430-FC-P-4A-T	6	M	TURBINE, #1 FORCE CIRC. PUMP
1	LU0046	REPLACE OIL IN GOVERNOR	430-FC-P-4B-T	6	M	TURBINE, #2 FORCE CIRC. PUMP
1	LU0048	REPLACE TURBINE END OIL	430-FC-P-4A-T	1	Y	TURBINE, #1 FORCE CIRC. PUMP
1	LU0048	REPLACE TURBINE END OIL	430-FC-P-4B-T	1	Y	TURBINE, #2 FORCE CIRC. PUMP
1	LU0050	REPLACE PUMP BEARING OIL	430-FC-P-4B	1	Y	PUMP, #4B TURBINE FORCE CIRC.
1	LU0050	REPLACE PUMP BEARING OIL	430-FC-P-4A	1	Y	PUMP, #4A TURBINE FORCE CIRC.
1	LU0053	REPLACE OIL IN BEARING RES.	430-FC-P-3A	1	Y	PUMP, #3A ELEC.FORCE CIRCULATI
1	LU0053	REPLACE OIL IN BEARING RES.	430-FC-P-3B	1	Y	PUMP, #3B ELEC.FORCE CIRCULATI
1	LU0064	REPLACE BEARING OIL	425-CD-P-5A	1	Y	PUMP, #5A CONDENSATE
1	LU0064	REPLACE BEARING OIL	425-CD-P-5B	1	Y	PUMP, #5B CONDENSATE
1	LU0114	INSPECT GEARCASE	485-ACC-FR-2	1	M	REDUCER, #2 ACC TUBE BUNDLE FAN
1	LU0114	INSPECT GEARCASE	485-ACC-FR-5	1	M	REDUCER, #5 ACC TUBE BUNDLE FAN
1	LU0114	INSPECT GEARCASE	485-ACC-FR-3	1	M	REDUCER, #3 ACC TUBE BUNDLE FAN
1	LU0114	INSPECT GEARCASE	485-ACC-FR-1	1	M	REDUCER, #1 ACC TUBE BUNDLE FAN
1	LU0114	INSPECT GEARCASE	485-ACC-FR-4	1	M	REDUCER, #4 ACC TUBE BUNDLE FAN
1	LU0120	INSPECT BEARING HOUSING	410-BC-P-13A	3	M	PUMP, #13A BEARING COOLING
1	LU0120	INSPECT BEARING HOUSING	410-BC-P-13B	3	M	PUMP, #13B BEARING COOLING
1	LU0121	REPLACE BEARING OIL	410-BC-P-13A	3	M	PUMP, #13A BEARING COOLING
1	LU0121	REPLACE BEARING OIL	410-BC-P-13B	3	M	PUMP, #13B BEARING COOLING
1	LU0127	INSPECT LARGE WORM DRIVE	125-BL-TGR-1	6	M	GRATE, #1 BLR. TRAVELING GRATE
1	LU0127	INSPECT LARGE WORM DRIVE	225-BL-TGR-2	6	M	REDUCER, #2 TRAVELING GRATE DR
1	LU0135	REPLACE BEARING OIL	420-BFW-P-1	6	M	PUMP, #1A ELECTRIC BOILER FEED
1	LU0135	REPLACE BEARING OIL	420-BFW-P-2	6	M	PUMP, #1B ELECTRIC BOILER FEED
1	LU0136	SAMPLE TURBINE OIL	710-TG-1	3	M	TURBINE, #1 GENERATOR
1	LU0138	GREASE TURBINE CONTROL VALVE	710-TG-1	3	M	TURBINE, #1 GENERATOR
1	LU0140	GREASE ID/FD FAN INBOARD BEARINGS	275-FA-ID-2	4	M	FAN, #2 INDUCTED DRAFT
1	LU0140	GREASE ID/FD FAN INBOARD BEARINGS	265-CA-FD-2	4	M	FAN, #2 FORCE DRAFT
1	LU0140	GREASE ID/FD FAN INBOARD BEARINGS	175-FA-ID-1	4	M	FAN, #1 INDUCTED DRAFT
1	LU0140	GREASE ID/FD FAN INBOARD BEARINGS	165-CA-FD-1	4	M	FAN, #1 FORCE DRAFT
1	LU0141	GREASE ID/FD FAN OUTBOARD BEARING:	175-FA-ID-1	6	M	FAN, #1 INDUCTED DRAFT
1	LU0141	GREASE ID/FD FAN OUTBOARD BEARING:	265-CA-FD-2	6	M	FAN, #2 FORCE DRAFT
1	LU0141	GREASE ID/FD FAN OUTBOARD BEARING:	275-FA-ID-2	6	M	FAN, #2 INDUCTED DRAFT
1	LU0141	GREASE ID/FD FAN OUTBOARD BEARING:	165-CA-FD-1	6	M	FAN, #1 FORCE DRAFT
1	LU0148	REPLACE RESERVOIR OIL	405-AC-3	1	Y	COMPRESSOR, #3 PLANT AIR
1	LU0148	REPLACE RESERVOIR OIL	405-AC-1	1	Y	COMPRESSOR, # 1 A PLANT AIR

1	LU0148	REPLACE RESERVOIR OIL	405-AC-2	1	Y	COMPRESSOR, # 1 B PLANT AIR
1	LU0149	REPLACE CABINET FILTER	275-FA-ID-2-VFD	1	M	VFD, FAN, #2 INDUCED DRAFT
1	LU0149	REPLACE CABINET FILTER	265-CA-FD-2-VFD	1	M	VFD, FAN, #2 FORCED DRAFT
1	LU0149	REPLACE CABINET FILTER	165-CA-FD-1-VFD	1	M	VFD, FAN, #1 FORCED DRAFT
1	LU0149	REPLACE CABINET FILTER	175-FA-ID-1-VFD	1	M	VFD, FAN, #1 INDUCED DRAFT
1	LU0150	REPLACE OIL FILTER	405-AC-1	6	M	COMPRESSOR, # 1 A PLANT AIR
1	LU0150	REPLACE OIL FILTER	405-AC-2	6	M	COMPRESSOR, # 1 B PLANT AIR
1	LU0150	REPLACE OIL FILTER	405-AC-3	6	M	COMPRESSOR, #3 PLANT AIR
1	LU0151	REPLACE AIR INTAKE FILTER	405-AC-1	3	M	COMPRESSOR, # 1 A PLANT AIR
1	LU0151	REPLACE AIR INTAKE FILTER	405-AC-3	3	M	COMPRESSOR, #3 PLANT AIR
1	LU0151	REPLACE AIR INTAKE FILTER	405-AC-2	3	M	COMPRESSOR, # 1 B PLANT AIR
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	510-FD-CRCM-2	1	Y	MOTOR, #2 CRANE CLOSING
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	510-FD-CRBM-2-1	1	Y	MOTOR, #2 CRANE, #1 BRIDGE
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	510-FD-CRBM-2-2	1	Y	MOTOR, #2 CRANE #2 BRIDGE
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	510-FD-CRHM-2	1	Y	MOTOR, #2 CRANE HOLD/HOIST
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	510-FD-CRTM-2	1	Y	MOTOR, #2 CRANE TROLLEY
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	520-FD-CRBM-1-1	1	Y	MOTOR, #1 CRANE, #1 BRIDGE
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	520-FD-CRBM-1-2	1	Y	MOTOR, #1 CRANE, #2 BRIDGE
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	520-FD-CRCM-1	1	Y	MOTOR, #1 CRANE CLOSING
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	520-FD-CRHM-1	1	Y	MOTOR, #1 CRANE HOLD/HOIST
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	710-TG-1	1	Y	TURBINE, #1 GENERATOR
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	430-FC-P-4B-T	1	Y	TURBINE, #4B FORCE CIRC. PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	520-FD-CRTM-1	1	Y	MOTOR, #1 CRANE TROLLEY
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	410-BC-P-13B	1	Y	PUMP, #13B BEARING COOLING
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	450-DW-PM-1	1	Y	MOTOR, DEMIN WATER PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	165-CA-FDM-1	1	Y	MOTOR, #1 FORCE DRAFT FAN
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	175-FA-IDM-1	1	Y	MOTOR, #1 INDUCED DRAFT FAN
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	225-BL-TGR-2	1	Y	REDUCER, #2 TRAVELING GRATE DR
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	265-CA-FDM-2	1	Y	MOTOR, #2 FORCE DRAFT FAN
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	450-DW-PM-2	1	Y	MOTOR, DEMIN WATER PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	410-BC-P-13A	1	Y	PUMP, #13A BEARING COOLING
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	125-BL-TGR-1	1	Y	REDUCER, #1 TRAVELING GRATE DR
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	420-BFW-P-1-M	1	Y	MOTOR, #1A BLR FEED WATER PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	420-BFW-P-2-M	1	Y	MOTOR, #1B BLR FEED WATER PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	420-BFW-PT-ST-DR-1	1	Y	TURBINE, BFW STEAM: DRESSER RAND
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	430-FC-P-3A-M	1	Y	MOTOR, #3A FORCE CIRC. PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	430-FC-P-3B-M	1	Y	MOTOR, #3B FORCE CIRC. PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	430-FC-P-4A-T	1	Y	TURBINE, #4A FORCE CIRC. PUMP
1	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	275-FA-IDM-2	1	Y	MOTOR, #2 INDUCED DRAFT FAN
1	OPIN1W	WEEKLY OPERATIONAL INSPECTION	430-FC-P-4A	1	W	PUMP, #4A TURBINE FORCE CIRC.
1	OPIN1W	WEEKLY OPERATIONAL INSPECTION	430-FC-P-4B	1	W	PUMP, #4B TURBINE FORCE CIRC.
1	PA-005	DRYER DESICCANT REPLACEMENT	405-AC-AD-2	1	Y	DRYER, #2 PLANT AIR
1	PA-008	DRYER AFTER FILTER REPLACEMENT	405-AC-AF-1	6	M	FILTER, #1 PLANT AIR AFTER-
1	PA-008	DRYER AFTER FILTER REPLACEMENT	405-AC-AF-2	6	M	FILTER, #2 PLANT AIR AFTER-



1	PS-007	DRYER PREFILTER REPLACEMENT	405-AC-PF-1	6	M	FILTER, # 1 AIR DRYER PRE-
1	PS-007	DRYER PREFILTER REPLACEMENT	405-AC-PF-2	6	M	FILTER, # 2 AIR DRYER PRE-
1	RCFR01	ROTATION FILTER REPLACEMENT	220-RC-2	3	M	COMBUSTER, #2 ROTARY
1	RCFR01	ROTATION FILTER REPLACEMENT	120-RC-1	3	M	COMBUSTER, # 1 ROTARY
1	RF-EL-1M	MONTHLY ELECTRICAL PM	510-FD-CR-2	30	D	CRANE,#2 WEST REFUSE FEED CRANE
1	RF-EL-1M	MONTHLY ELECTRICAL PM	520-FD-CR-1	30	D	CRANE,#1 EAST REFUSE FEED CRANE
1	RF-EL-1W	WEEKLY ELECTRICAL PM	510-FD-CR-2	7	D	CRANE,#2 WEST REFUSE FEED CRANE
1	RF-EL-1W	WEEKLY ELECTRICAL PM	520-FD-CR-1	7	D	CRANE,#1 EAST REFUSE FEED CRANE
1	RF-EL-1Y	YEARLY ELECTRICAL PM	520-FD-CR-1	1	Y	CRANE,#1 EAST REFUSE FEED CRANE
1	RF-EL-1Y	YEARLY ELECTRICAL PM	510-FD-CR-2	1	Y	CRANE,#2 WEST REFUSE FEED CRANE
1	RF-OP-1	BLOW OUT DUST FROM RESISTOR BANK:	520-FD-CR-1	1	SAT	CRANE,#1 EAST REFUSE FEED CRANE
1	RF-OP-2	BLOW OUT DUST FROM RESISTOR BANK:	510-FD-CR-2	1	SAT	CRANE,#2 WEST REFUSE FEED CRANE
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-8	1	TUE	SOOTBLOWER, #1-8 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-1	1	TUE	SOOTBLOWER, #1-1 RETRACTABLE
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-9	1	TUE	SOOTBLOWER, #1-9 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-7	1	TUE	SOOTBLOWER, #1-7 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-6	1	TUE	SOOTBLOWER, #1-6 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-5	1	TUE	SOOTBLOWER, #1-5 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-4	1	TUE	SOOTBLOWER, #1-4 RETRACTABLE
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-3	1	TUE	SOOTBLOWER, #1-3 RETRACTABLE
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-10	1	TUE	SOOTBLOWER, #1-10 ROTARY
1	SB1LG	#1 SOOTBLOWER WEEKLY INSPECTION	145-BL-SB-1-2	1	TUE	SOOTBLOWER, #1-2 RETRACTABLE
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-8	1	TUE	SOOTBLOWER, #2-8 ROTARY
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-7	1	TUE	SOOTBLOWER, #2-7 ROTARY
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-6	1	TUE	SOOTBLOWER, #2-6 ROTARY
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-5	1	TUE	SOOTBLOWER, #2-5 ROTARY
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-1	1	TUE	SOOTBLOWER, #2-1 RETRACTABLE
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-10	1	TUE	SOOTBLOWER, #2-10 ROTARY
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-2	1	TUE	SOOTBLOWER, #2-2 RETRACTABLE
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-3	1	TUE	SOOTBLOWER, #2-3 RETRACTABLE
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-4	1	TUE	SOOTBLOWER, #2-4 RETRACTABLE
1	SB2LG	#2 SOOTBLOWER WEEKLY INSPECTION	245-BL-SB-2-9	1	TUE	SOOTBLOWER, #2-9 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-3	1	Y	SOOTBLOWER, #2-3 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-9	1	Y	SOOTBLOWER, #2-9 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-8	1	Y	SOOTBLOWER, #2-8 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-7	1	Y	SOOTBLOWER, #2-7 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-6	1	Y	SOOTBLOWER, #2-6 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-4	1	Y	SOOTBLOWER, #2-4 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-2	1	Y	SOOTBLOWER, #2-2 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-1	1	Y	SOOTBLOWER, #1-1 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-1	1	Y	SOOTBLOWER, #2-1 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-9	1	Y	SOOTBLOWER, #1-9 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-8	1	Y	SOOTBLOWER, #1-8 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-7	1	Y	SOOTBLOWER, #1-7 ROTARY

1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-6	1	Y	SOOTBLOWER, #1-6 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-5	1	Y	SOOTBLOWER, #1-5 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-10	1	Y	SOOTBLOWER, #2-10 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-10	1	Y	SOOTBLOWER, #1-10 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	245-BL-SB-2-5	1	Y	SOOTBLOWER, #2-5 ROTARY
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-2	1	Y	SOOTBLOWER, #1-2 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-3	1	Y	SOOTBLOWER, #1-3 RETRACTABLE
1	SBAPCP	SOOTBLOWER STEAM PRESSURE ADJUS	145-BL-SB-1-4	1	Y	SOOTBLOWER, #1-4 RETRACTABLE
1	SBVSPR	SB. VALVE STEM PACKING REPLACE	200-BL-2	0	Y	BOILER, #2
1	SBVSPR	SB. VALVE STEM PACKING REPLACE	100-BL-1	0	Y	BOILER, #1
1	TG-002	TURBINE/GENERATOR LUB OIL FILT	710-TG-1	6	M	TURBINE, #1 GENERATOR
1	TG-GEN-FLT	REPLACE TURBINE GENERATOR AIR FILT	710-TG-1	0	SAT	TURBINE, #1 GENERATOR
1	TGTG6M	SIX MONTH TURNING GEAR INSP.	710-TG-TG-1	6	M	GEAR, #1 TURBINE TURNING
1	TTPM02	WEEKLY TERRY TURBINE INSP.	430-FC-P-4B	1	M	PUMP, #4B TURBINE FORCE CIRC.
1	TTPM02	WEEKLY TERRY TURBINE INSP.	430-FC-P-4A	1	M	PUMP, #4A TURBINE FORCE CIRC.
1	TTPM03	THREE MONTH TURBINE INSP.	430-FC-P-4A	1	Y	PUMP, #4A TURBINE FORCE CIRC.
1	TTPM03	THREE MONTH TURBINE INSP.	430-FC-P-4B	1	Y	PUMP, #4B TURBINE FORCE CIRC.
1	TTPM04	ANNUAL TERRY TURBINE INSP.	430-FC-P-4A	1	Y	PUMP, #4A TURBINE FORCE CIRC.
1	TTPM04	ANNUAL TERRY TURBINE INSP.	430-FC-P-4B	1	Y	PUMP, #4B TURBINE FORCE CIRC.
1	ZC-001	CONTROL BOARD BULB REPLACEMENT	810-ZC-1	1	M	BUILDINGS, CONTROL/MCC ROOMS
1	ZD-001	SCALE CLEANING	810-ZD-1	3	M	BUILDINGS, SCALE/DUTCHESS CTY.
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-BA-CONV-0-5-M	6	M	MOTOR, #0-5 BELT CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	425-CD-PM-5A	6	M	MOTOR, #5A CONDENSATE PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-18B-M	6	M	MOTOR,, #18B CAUSTIC FEED PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-18A-M	6	M	MOTOR,, #18A CAUSTIC FEED PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-BGH-CONV-1-1-M	6	M	MOTOR, #1-1 BGH SCREW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-FA-RAV-EC-2-M	6	M	MOTOR,ECON ROTORY VALVE
2	ACC001	HEAT EXCHANGER SERVICE	485-ACC-SAE-1	1	Y	EJECTOR, #1 ACC STEAM JET AIR
2	ACCCL1	SIX MONTH WASHING	485-ACC-2	6	M	BUILDING,ACC/NEW
2	ACCIN1	MONTHLY INSP. AND CLEANING	485-ACC-1	3	M	CONDENSER,AIR COOLED
2	ACCIN2	THREE MONTH INSP. AND CLEANING	485-ACC-1	3	M	CONDENSER,AIR COOLED
2	ACCIN3	SIX MONTH INSP. AND CLEANING	485-ACC-1	6	M	CONDENSER,AIR COOLED
2	ACCIN4	YEARLY INSP. AND CLEANING	485-ACC-1	1	Y	CONDENSER,AIR COOLED
2	ACCVT1	VACCUUM TEST	485-ACC-1	1	Y	CONDENSER,AIR COOLED
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-BA-CONV-0-1-M	6	M	MOTOR, #0-1 VIB. PAN CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	480-BA-CONV-0-6-M	6	M	MOTOR, MAGNET DRUM, METAL SEPERATION
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-FA-CONV-1CROSS-I	6	M	MOTOR, CONVEYOR, #1 FLY ASH CROSS
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-BA-CONV-0-4-M	6	M	MOTOR, #0-4 BOTTOM ASH BELT CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-BA-CONV-0-3-M	6	M	MOTOR, #0-3 FERR. PAN CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-BA-CONV-0-2-M	6	M	MOTOR, #0-2 FINES FEEDER
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-AMC-COND-2-M	6	M	MOTOR,FLY ASH CONDITIONER
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-AMC-COND-1-M	6	M	MOTOR, #1 FA MIXING CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	455-CF-PM-16B	6	M	MOTOR, #16B ACID FEED PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	455-CF-PM-16A	6	M	MOTOR, #16A ACID FEED PUMP

2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-TK-5-AG-M	6	M	MOTOR, #5 EQ. TANK AGITATOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-8A-M	6	M	MOTOR, #8A TRANSFER PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-TK-7-AG	6	M	AGITATOR, #7 REACTION TANK
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-TK-6	6	M	TANK, #6 CLARIFIER
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-8B-M	6	M	MOTOR, #8B TRANSFER PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-10B-M	6	M	MOTOR, #10B CLEARWELL PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	490-WW-P-10A-M	6	M	MOTOR, #10A CLEARWELL PUMP
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	190-BA-CONV-1-M	6	M	MOTOR, #1 BOTTOM ASH CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-FA-RAV-SH-1-M	6	M	MOTOR,ROTARY VALVE:SH #1
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-FA-RAV-EC-1-M	6	M	MOTOR, ROTARY VALVE, ECON #1
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-FA-CONV-1SH-M	6	M	MOTOR, CONVEYOR, #1 SUPERHEATER SCREW
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-FA-CONV-1F-M	6	M	MOTOR, CONVEYOR, DRAG, #1 FLYASH
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-FA-CONV-1EC-M	6	M	MOTOR, CONVEYOR, #1 ECON SCREW
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-BGH-CONV-1-3-M	6	M	MOTOR, #1-3 BGH SCREW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	195-BGH-CONV-1-2-M	6	M	MOTOR, #1-2 BGH SCREW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	170-BL-SAF-1	6	M	FAN,#1 SECONDARY AIR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	475-FA-CONV-2CROSS-I	6	M	MOTOR, CONVEYOR, #2 FLY ASH CROSS
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-FA-RAV-SH-2-M	6	M	MOTOR,ROTORY VALVE:SH #2
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	405-AC-3	6	M	COMPRESSOR, #3 PLANT AIR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-FA-CONV-2SH-M	6	M	MOTOR, CONVEYOR:#2 SUPERHEATER SCREW
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-FA-CONV-2F-M	6	M	MOTOR, #2 FLY ASH CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-FA-CONV-2EC-M	6	M	MOTOR, #2 ECON SCW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	270-BL-SAF-2	6	M	FAN,#2 SECONDARY AIR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-BGH-CONV-2-3-M	6	M	MOTOR, #2-3 BGH SCREW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	290-BA-CONV-2-M	6	M	MOTOR, #2 BOTTOM ASH CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-BGH-CONV-2-1-M	6	M	MOTOR, #2-1 BGH SCREW CONVEYOR
2	ACMTRLUBE	AC MOTOR CLEAN AND LUBE	295-BGH-CONV-2-2-M	6	M	MOTOR, #2-2 BGH SCREW CONVEYOR
2	ASHLU1	YEARLY ASH AISLE LUBRICATION	810-ZA-1	1	Y	BUILDINGS, ASH LOAD-OUT AREA
2	ASHLU6	SIX MONTH ASH AISLE LUBE	810-ZA-1	6	M	BUILDINGS, ASH LOAD-OUT AREA
2	ASHLUW	MONTHLY ASH ISLE LUBRICATION	475-BA-CONV-0-1	1	M	CONVEYOR, #0-1 VIBRATING PAN
2	ASHLUW	MONTHLY ASH ISLE LUBRICATION	475-BA-CONV-0-4	1	M	CONVEYOR, #0-4 BELT BOTTOM ASH
2	ASHLUW	MONTHLY ASH ISLE LUBRICATION	475-BA-CONV-0-5	1	M	CONVEYOR, BELT: FLYASH
2	ASHLUW	MONTHLY ASH ISLE LUBRICATION	480-BA-CONV-0-6	1	M	MAGNET DRUM, METAL SEPERATION
2	BACMA4	INSPECT BAC OPERATING LEVEL	410-BAC-1	0	D	COOLER, BALTIMORE AIRCOIL
2	BACOP1	WEEKLY CLEANING	410-BAC-1	0	D	COOLER,BALTIMORE:BCW
2	BACOP4	CLEAN STRAINER AND SCREEN	410-BAC-1	1	W	COOLER, BALTIMORE AIRCOIL
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-8	6	M	FAN,TOP ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-4	0	D	
2	BELT TENSION	BELT TENSION INSPECTION	475-FA-CONV-2CROSS	3	M	CONVEYOR, #2 FLY ASH CROSS
2	BELT TENSION	BELT TENSION INSPECTION	640-SF-25A	1	M	CONVEYOR, SCREW, #1 LIME INJECT SYS
2	BELT TENSION	BELT TENSION INSPECTION	640-SF-25B	1	M	CONVEYOR, SCREW, #2 LIME INJECT SYS
2	BELT TENSION	BELT TENSION INSPECTION	475-FA-CONV-1CROSS	3	M	CONVEYOR, #1 FLY ASH CROSS
2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-3	6	M	FAN,AIR COMPRESSOR ROOM ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-3	0	D	

2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-4	6	M	FAN,AIR TG BUILDING ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-5	6	M	FAN,AIR TG BUILDING ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-ACRF-5	0	D	
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-10	6	M	FAN,TOP ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-11	6	M	FAN,TIPPING ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-12	6	M	FAN,TIPPING ROOF
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-7	6	M	FAN,TOP ROOF
2	BELT TENSION	BELT TENSION INSPECTION	195-BGH-CONV-1-3	3	M	CONVEYOR, #1-3 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-9	6	M	FAN,TOP ROOF
2	BELT TENSION	BELT TENSION INSPECTION	475-BA-CONV-0-5	3	M	CONVEYOR, BELT: FLYASH
2	BELT TENSION	BELT TENSION INSPECTION	815-TRF-13	6	M	FAN,TIPPING ROOF
2	BELT TENSION	BELT TENSION INSPECTION	285-BGH-RAF-2-1	3	M	FAN, #2-1 BGH REVERSE AIR
2	BELT TENSION	BELT TENSION INSPECTION	185-BGH-RAF-1-1	3	M	FAN, # 1-1 BGH REVERSE AIR
2	BELT TENSION	BELT TENSION INSPECTION	195-BGH-CONV-1-1	3	M	CONVEYOR, #1-1 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	195-BGH-CONV-1-2	3	M	CONVEYOR, #1-2 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	475-BA-CONV-0-4	3	M	CONVEYOR, #0-5 BELT BOTTOM ASH
2	BELT TENSION	BELT TENSION INSPECTION	195-FA-CONV-1EC	3	M	CONVEYOR, #1 ECON SCREW
2	BELT TENSION	BELT TENSION INSPECTION	195-FA-CONV-1SH	0	D	
2	BELT TENSION	BELT TENSION INSPECTION	295-BGH-CONV-2-1	3	M	CONVEYOR, #2-1 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	295-BGH-CONV-2-2	3	M	CONVEYOR, #2-2 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	295-BGH-CONV-2-3	3	M	CONVEYOR, #2-3 BGH SCREW
2	BELT TENSION	BELT TENSION INSPECTION	295-FA-CONV-2EC	3	M	CONVEYOR,#2 ECONOMIZER SCREW
2	BELT TENSION	BELT TENSION INSPECTION	295-FA-CONV-2SH	3	M	CONVEYOR:#2 SUPERHEATER SCREW
2	BELT TENSION	BELT TENSION INSPECTION	295-FA-CONV-2SH	0	D	
2	BELT TENSION	BELT TENSION INSPECTION	475-AMC-COND-1	3	M	CONVEYOR, #1 FLYASH MIXER LANE
2	BELT TENSION	BELT TENSION INSPECTION	475-AMC-COND-2	3	M	CONVEYOR;ASHTech MIXING
2	BELT TENSION	BELT TENSION INSPECTION	475-BA-CONV-0-1	3	M	CONVEYOR, #0-1 VIBRATING PAN
2	BELT TENSION	BELT TENSION INSPECTION	195-FA-CONV-1SH	3	M	CONVEYOR, #1 SUPERHEATER SCREW
2	BLOWEROIL	CHANGE LIME BLOWER OIL		0		
2	CMCBA2	CLEAN LENSE AND CAMERA DISCHARGE	120-RC-1	1	TUE	COMBUSTER, # 1 ROTARY
2	CMCBA2	CLEAN LENSE AND CAMERA DISCHARGE	220-RC-2	0		COMBUSTER, #2 ROTARY
2	CMCBA3	CLEAN LENSE AND CAMERA TRAVEL GRA	225-BL-TG-2	0		GRATE, #2 BLR. TRAVELING GRATE
2	CMCBA3	CLEAN LENSE AND CAMERA TRAVEL GRA	125-BL-TG-1	1	TUE	GRATE, #1 BLR. TRAVELING GRATE
2	DA0001	YEARLY DA INSPECTION	425-DA-1	1	Y	DEAERATOR, #1 HEATER/
2	DA0002	DA ULTRASOUND TESTING	425-DA-1	3	Y	DEAERATOR, #1 HEATER/
2	DABD-01	INSTRUMENT BLOW DOWN DA TANK	425-DA-1	6	M	DA,DEAERATOR, #1 HEATER/
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-6	1	M	COMPARTMENT, # 2-6 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-1	1	M	COMPARTMENT, # 2-1 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	640-SDA-1	1	M	SDA #1, VESSEL
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-5	1	M	COMPARTMENT, # 2-5 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-4	1	M	COMPARTMENT, # 2-4 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-3	1	M	COMPARTMENT, # 2-3 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	285-BGH-CP-2-2	1	M	COMPARTMENT, # 2-2 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	640-SDA-2	1	M	SDA #2, VESSEL

2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-5	1	M	COMPARTMENT, # 1-5 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-4	1	M	COMPARTMENT, # 1-4 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-3	1	M	COMPARTMENT, # 1-3 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-2	1	M	COMPARTMENT, #1-2 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-6	1	M	COMPARTMENT, # 1-6 BAGHOUSE
2	DDD-01	LUBRICATE DDD ACTUATING SHAFT BEAF	185-BGH-CP-1-1	1	M	COMPARTMENT, #1-1 BAGHOUSE
2	DI-002	INSPECTION,DAILY LUB/OIL	810-ZB-1	1	WED	BUILDINGS, BOILER ROOM
2	DR0024	DOUGHNUT REPLACEMENT	475-BA-CONV-0-1	1	Y	CONVEYOR, #0-1 VIBRATING PAN
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-2185	6	M	TRANSMITTER, #2185 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-1360	6	M	TRANSMITTER, #1360 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-2360	6	M	TRANSMITTER, #2360 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER OBSOLETE	PT-450	6	M	TRANSMITTER, #450 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-2160	6	M	TRANSMITTER, #2160 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-1160	6	M	TRANSMITTER, #1160 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	440-PT-420	6	M	TRANSMITTER, #420 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	435-PT-470	6	M	TRANSMITTER, #470 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	425-PT-380	6	M	TRANSMITTER, #380
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	485-PT-690	6	M	TRANSMITTER, #690 PRESSURE
2	DRAFT TRANSMITTERS	BLOW OUT BOILER DRAFT TRANSMITTER	460-PT-1185	6	M	TRANSMITTER, #1185 PRESSURE
2	ECCLU1	MONTHLY MOTOR REDUCER INSP.	295-FA-CONV-2EC	1	M	CONVEYOR, #2 ECONOMIZER SCREW
2	ECCLU1	MONTHLY MOTOR REDUCER INSP.	295-FA-CONV-2SH	1	M	CONVEYOR, #2 SUPERHEATER
2	ECCLU1	MONTHLY MOTOR REDUCER INSP.	195-FA-CONV-1SH	1	M	CONVEYOR, #1 SUPERHEATER SCREW
2	ECCLU1	MONTHLY MOTOR REDUCER INSP.	195-FA-CONV-1EC	1	M	CONVEYOR, #1 ECON SCREW
2	ECCLU2	THREE YEAR GEAR LUBE REPLACE	195-FA-CONV-1SH	0	Y	CONVEYOR, #1 SUPERHEATER SCREW
2	ECCLU2	THREE YEAR GEAR LUBE REPLACE	295-FA-CONV-2EC	0	Y	CONVEYOR, #2 ECONOMIZER SCREW
2	ECCLU2	THREE YEAR GEAR LUBE REPLACE	295-FA-CONV-2SH	0	Y	CONVEYOR, #2 SUPERHEATER
2	ECCLU2	THREE YEAR GEAR LUBE REPLACE	195-FA-CONV-1EC	0	Y	CONVEYOR, #1 ECON SCREW
2	EL0001	REPLACE BURNT BULBS IN MCC	810-EDC-1	1	M	BUILDING, MAIN MCC ROOM
2	EL0001	REPLACE BURNT BULBS IN MCC	810-EDC-2	1	M	ELECTRICAL DISTRIBUTION CENTER #2, BH MC
2	EL0001	REPLACE BURNT BULBS IN MCC	810-EDC-3	1	M	ELECTRICAL DISTRIBUTION CENTER #3, SDA
2	EL0004	CLEAN PLANT MOTORS	810-ZB-1	3	M	BUILDINGS, BOILER ROOM
2	EQ0001	THREE MONTH EQ TANK INSPECTION	490-WW-TK-5	3	M	TANK, #5 EQUALIZING
2	EQ0002	SIX MONTH EQ TANK INSPECTION	490-WW-TK-5	6	M	TANK, #5 EQUALIZING
2	EQ0003	YEARLY EQ TANK INSPECTION	490-WW-TK-5	1	Y	TANK, #5 EQUALIZING
2	EQIN1Y	YEARLY AGITATOR INSPECTION	490-WW-TK-5-AG	1	Y	AGITATOR, #5 EQUALIZER TANK
2	ERCCLCLOSINGCHANGE	ERC CLOSING CABLE CHANGE PROCEDURE	520-FD-CRCR-1	0	D	REDUCER, #1 CRANE CLOSING SPEED
2	FINES SPRINGS	RETORQUE FINES FEEDER SPRINGS	475-BA-CONV-0-2	3	M	CONVEYOR, #0-2 FINES FEEDER
2	GEAIN1	QUARTERLY GEA INSPECTION	485-ACC-F-3	3	M	FAN, #3 ACC TUBE BUNDLE
2	GEAIN1	QUARTERLY GEA INSPECTION	485-ACC-F-4	3	M	FAN, ACC #4/NEW
2	GEAIN1	QUARTERLY GEA INSPECTION	485-ACC-F-2	3	M	FAN, #2 ACC TUBE BUNDLE
2	GEAIN1	QUARTERLY GEA INSPECTION	485-ACC-F-1	3	M	FAN, #1 ACC TUBE BUNDLE
2	GEAIN1	QUARTERLY GEA INSPECTION	485-ACC-F-5	3	M	FAN, ACC TUBE BUNDLE
2	GEAIN3	SEMI-ANNUAL INSPECTION	485-ACC-F-4	6	M	FAN, ACC #4/NEW
2	GEAIN3	SEMI-ANNUAL INSPECTION	485-ACC-F-5	6	M	FAN, ACC TUBE BUNDLE

2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-FA-RAV-SH-2-R	12	M	REDUCER,SH ROTARY VALVE #2
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-BGH-CONV-2-2-R	12	M	REDUCER, #2-2 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-BGH-CONV-2-3-R	12	M	REDUCER, #2-3 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-BGH-RAV-2-1-R	12	M	REDUCER, #2-1 BGH ROTARY AIR L
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-FA-CONV-2EC-R	6	M	REDUCER, CONVEYOR,#2 ECONOMIZER SCREW
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-FA-CONV-2F-R	12	M	REDUCER, #2 FLY ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	125-BL-TGR-1	6	M	REDUCER, #1 TRAVELING GRATE DR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-FA-RAV-EC-2-R	12	M	REDUCER,ECON ROTARY VALVE #2
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	290-BA-CONV-2-R	1	Y	REDUCER, #2 BOTTOM ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-AMC-COND-1-R	3	M	REDUCER, #1 FA MIXING CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-AMC-COND-2-R	3	M	GEARBOX, ASHTECH CONV.
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-BA-CONV-0-4-R	12	M	REDUCER, #0-4 BOTTOM ASH BELT CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-BA-CONV-0-5-R	12	M	REDUCER, #0-5 BELT CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-FA-CONV-1CROSS-I	6	M	REDUCER, CONVEYOR, #1 FLY ASH CROSS
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	485-ACC-FR-1	1	Y	REDUCER, #1 ACC TUBE BUNDLE FAN
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-FA-CONV-2SH-R	6	M	REDUCER, CONVEYOR:#2 SUPERHEATER SCREW
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-FA-CONV-1EC-R	6	M	REDUCER, CONVEYOR, #1 ECON SCREW
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	125-BL-TGWR-1	3	Y	REDUCER, #1 TG WORM GEAR SPEED
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	190-BA-CONV-1-R	1	Y	REDUCER, #1 BOTTOM ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	190-SA-CONV-1-R	12	M	REDUCER, #1 SIFTING ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-BGH-CONV-1-1-R	12	M	REDUCER, #1-1 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-BGH-CONV-1-2-R	12	M	REDUCER, #1-2 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	295-BGH-CONV-2-1-R	12	M	REDUCER, #2-1 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-BGH-RAV-1-1-R	12	M	REDUCER, #1-1 BGH ROTARY AIR L
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	290-SA-CONV-2-R	12	M	REDUCER, #2 SIFTING ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-FA-CONV-1F-R	12	M	REDUCER, #1 FLY ASH CONVEYOR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-FA-CONV-1SH-R	6	M	REDUCER, CONVEYOR, #1 SUPERHEATER SCREW
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-FA-RAV-EC-1-R	12	M	REDUCER,ECON ROTARY VALVE #1
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-FA-RAV-SH-1-R	12	M	REDUCER,SH ROTARY VALVE #1
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	225-BL-TGR-2	6	M	REDUCER, #2 TRAVELING GRATE DR
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	225-BL-TGWR-2	3	Y	REDUCER, #2 TG WORM GEAR SPEED
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	195-BGH-CONV-1-3-R	12	M	REDUCER, #1-3 BGH SCREW CONVEY
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	640-SF-25A-R	6	M	GEARBOX, CONVEYOR, SCREW, #1 LIME INJECT
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	475-FA-CONV-2CROSS-I	6	M	REDUCER, CONVEYOR, #2 FLY ASH CROSS
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	480-BA-CONV-0-6-R	6	M	REDUCER, MAGNET DRUM, METAL SEPERATION
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	640-SF-25B-R	6	M	GEARBOX, CONVEYOR, SCREW, #1 LIME INJECT
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	490-WW-TK-7-AG	12	M	AGITATOR, #7 REACTION TANK
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	490-WW-TK-6	1	Y	TANK, #6 CLARIFIER
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	490-WW-TK-5-AG	12	M	AGITATOR, #5 EQUALIZER TANK
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	485-ACC-FR-5	1	Y	REDUCER,#5 ACC TUBE BUNDLE FAN
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	485-ACC-FR-4	1	Y	REDUCER,#4 ACC TUBE BUNDLE FAN
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	485-ACC-FR-3	1	Y	REDUCER, #3 ACC TUBE BUNDLE FAN
2	GR OIL CHANGE	GEAR REDUCER OIL CHANGE	485-ACC-FR-2	1	Y	REDUCER, #2 ACC TUBE BUNDLE FAN
2	HF-003	HYD BREATHER FILTER REPLACEMEN	115-HP-HU-1	6	M	UNIT, #1 HYDRAULIC PUMP

2	HF-003	HYD BREATHER FILTER REPLACEMEN	215-HP-HU-2	6	M	UNIT, #2 HYDRAULIC PUMP RESERV
2	IN0009	MONTHLY VIBRATORY CONVEYOR INSP	475-BA-CONV-0-1	1	M	CONVEYOR, #0-1 VIBRATING PAN
2	IN0010	MONTHLY GRIZZLY INSPECTION	475-BA-CONV-0-2	1	M	CONVEYOR, #0-2 GRIZZLY PAN VIB
2	IN0011	MONTHLY BELT CONVEYOR INSP.	475-BA-CONV-0-4	1	M	CONVEYOR, #0-5 BELT BOTTOM ASH
2	IN0011	MONTHLY BELT CONVEYOR INSP.	475-BA-CONV-0-5	1	M	CONVEYOR, BELT: FLYASH
2	IN0012	MONTHLY FINES CONVEYOR INSP	475-BA-CONV-0-3	1	M	CONVEYOR, #0-3 FERRIOUS VB PAN
2	IN0018	MONTHLY CLARIFIER TANK INSP.	490-WW-TK-6	1	M	TANK, #6 CLARIFIER
2	IN0019	MONTHLY CLARIFIER INSPECTION	490-WW-TK-6	1	M	TANK, #6 CLARIFIER
2	IN0020	YEARLY CLARIFIER INSPECTION	490-WW-TK-6	1	Y	TANK, #6 CLARIFIER
2	LSCAL	ANNUAL LIFT STATION CAL	490-LIFTSTATION	12	M	PUMP, LIFT STATION
2	LU0014	INSPECT MOTOR	815-TEF-001	1	Y	FAN,TIPPING AISLE,EXHAUST
2	LU0014	INSPECT MOTOR	815-TEF-002	1	Y	FAN,TIPPING AISLE,EXHAUST
2	LU0015	GREASE FAN BEARINGS	815-TEF-002	3	M	FAN,TIPPING AISLE,EXHAUST
2	LU0015	GREASE FAN BEARINGS	815-TEF-001	3	M	FAN,TIPPING AISLE,EXHAUST
2	LU0015	GREASE FAN BEARINGS	270-BL-SAF-2	90	D	FAN,#2 SECONDARY AIR
2	LU0015	GREASE FAN BEARINGS	170-BL-SAF-1	90	D	FAN,#1 SECONDARY AIR
2	LU0021	GREASE BOILER STEAM VALVES	100-BL-1	6	M	BOILER, #1
2	LU0021	GREASE BOILER STEAM VALVES	200-BL-2	6	M	BOILER, #2
2	LU0057	INSPECT RES.	455-CF-P-16A	3	M	PUMP, #16A ACID FEED
2	LU0057	INSPECT RES.	455-CF-P-16B	3	M	PUMP, #16B ACID FEED
2	LU0060	INSPECT RES FOR OIL LEVEL	490-WW-P-18A	3	M	PUMP, #18A CAUSTIC FEED
2	LU0060	INSPECT RES FOR OIL LEVEL	490-WW-P-18B	3	M	PUMP, #18B CAUSTIC FEED
2	LU0061	REPLACE LUBE IN RES.	490-WW-P-18A	1	Y	PUMP, #18A CAUSTIC FEED
2	LU0061	REPLACE LUBE IN RES.	490-WW-P-18B	1	Y	PUMP, #18B CAUSTIC FEED
2	LU0066	INSPECT GEARBOX	190-BA-CONV-1-R	3	M	REDUCER, #1 BOTTOM ASH CONVEYOR
2	LU0066	INSPECT GEARBOX	190-SA-CONV-1-R	3	M	REDUCER, #1 SIFTING ASH CONVEYOR
2	LU0066	INSPECT GEARBOX	290-BA-CONV-2-R	3	M	REDUCER, #2 BOTTOM ASH CONVEYOR
2	LU0066	INSPECT GEARBOX	290-SA-CONV-2-R	3	M	REDUCER, #2 SIFTING ASH CONVEYOR
2	LU0069	GREASE CROSSHEAD BEARING	190-BA-CONV-1	3	M	BOTTOM ASH CONVEYOR #1
2	LU0069	GREASE CROSSHEAD BEARING	190-SA-CONV-1	3	M	CONVEYOR, #1 SIFTING ASH
2	LU0069	GREASE CROSSHEAD BEARING	290-BA-CONV-2	3	M	BOTTOM ASH CONVEYOR #2
2	LU0069	GREASE CROSSHEAD BEARING	290-SA-CONV-2	3	M	CONVEYOR, #2 SIFTING ASH
2	LU0086	INSPECT GEAR CASE	195-FA-CONV-1F-R	3	M	REDUCER, #1 FLY ASH CONVEYOR
2	LU0086	INSPECT GEAR CASE	295-FA-CONV-2F-R	3	M	REDUCER, #2 FLY ASH CONVEYOR
2	LU0091	INSPECT REDUCER	295-BGH-CONV-2-2-R	3	M	REDUCER, #2-2 BGH SCREW CONVEY
2	LU0091	INSPECT REDUCER	295-BGH-CONV-2-3-R	3	M	REDUCER, #2-3 BGH SCREW CONVEY
2	LU0091	INSPECT REDUCER	195-BGH-CONV-1-1-R	3	M	REDUCER, #1-1 BGH SCREW CONVEY
2	LU0091	INSPECT REDUCER	195-BGH-CONV-1-2-R	3	M	REDUCER, #1-2 BGH SCREW CONVEY
2	LU0091	INSPECT REDUCER	295-BGH-CONV-2-1-R	3	M	REDUCER, #2-1 BGH SCREW CONVEY
2	LU0091	INSPECT REDUCER	195-BGH-CONV-1-3-R	3	M	REDUCER, #1-3 BGH SCREW CONVEY
2	LU0095	INSPECT MOTOR REDUCER	195-BGH-RAV-1-1-R	3	M	REDUCER, #1-1 BGH ROTARY AIR L
2	LU0095	INSPECT MOTOR REDUCER	295-BGH-RAV-2-1-R	3	M	REDUCER, #2-1 BGH ROTARY AIR L
2	LU0102	REPLACE BEARING OIL	490-WW-P-7B	6	M	PUMP, #7B SUMP
2	LU0102	REPLACE BEARING OIL	490-WW-P-8A	6	M	PUMP, #8A TRANSFER

2	LU0102	REPLACE BEARING OIL	490-WW-P-7A	6	M	PUMP, #7A SUMP
2	LU0102	REPLACE BEARING OIL	490-WW-P-10B	6	M	PUMP, #10B CLEARWELL
2	LU0102	REPLACE BEARING OIL	490-WW-P-10A	6	M	PUMP, #10A CLEARWELL
2	LU0102	REPLACE BEARING OIL	490-WW-P-8B	6	M	PUMP, #8B TRANSFER
2	LU0106	INSPECT GEAR RESERVOIR	490-WW-TK-5-AG	1	M	AGITATOR, #5 EQUALIZER TANK
2	LU0106	INSPECT GEAR RESERVOIR	490-WW-TK-7-AG	1	M	AGITATOR, #7 REACTION TANK
2	LU0110	LUBE GEARCASE GREASE FITTING	490-WW-TK-6	6	M	TANK, #6 CLARIFIER
2	LU0111	INSPECT GEAR CASE	490-WW-TK-6	3	M	TANK, #6 CLARIFIER
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	290-SA-CONV-2	3	M	CONVEYOR, #2 SIFTING ASH
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	480-BA-CONV-0-6	3	M	MAGNET ,DRUM:METAL SEPERATION
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	475-AMC-RAV-2	3	M	ROTARY,VALVE,;ASHTech CONVEYOR
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	475-AMC-RAV-1	3	M	ROTARY,LANE FLYASH MIXING CONV.
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	475-AMC-COND-1	3	M	CONVEYOR, #1 FLYASH MIXER LANE
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	295-FA-RAV-SH-2	3	M	ROTARY VALVE,SUPERHEATER #2
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	295-FA-CONV-2F	3	M	CONVEYOR, DRAG, #2 FLY ASH
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	290-BA-CONV-2	3	M	BOTTOM ASH CONVEYOR #2
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	195-FA-RAV-SH-1	3	M	ROTARY VALVE,SUPERHEATER #1
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	195-FA-RAV-EC-1	3	M	ROTORY VALVE:ECONOMIZER #1
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	195-FA-CONV-1F	3	M	CONVEYOR, DRAG, #1 FLYASH
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	190-SA-CONV-1	3	M	CONVEYOR, #1 SIFTING ASH
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	190-BA-CONV-1	3	M	BOTTOM ASH CONVEYOR #1
2	LUBECHAIN	CHAIN DRIVE INSPECT AND LUBE	295-FA-RAV-EC-2	3	M	ROTORY VALVE:ECONOMIZER #2
2	LW1W	WEEKLY LOADER CLEANING	903-VH-FD-FEL-4	1	W	LOADER, KOMATSU WA200-5
2	MACK01	MONTHLY MACK GRAPPLE INSP	520-FD-CRG-1	3	M	GRAPPLE, #1 MSW CRANE EAST
2	MACK01	MONTHLY MACK GRAPPLE INSP	510-FD-CRG-2	3	M	GRAPPLE, #2 MSW CRANE WEST
2	METERS	WEEKLY METER READINGS	920-VH-FT-1	1	W	FORKTRUCK, #1
2	METERS	WEEKLY METER READINGS	950-VH-F250-1	1	W	TRUCK,FORD F250 PICKUP
2	METERS	WEEKLY METER READINGS	905-VH-ZA-TR-2	1	W	YARDTRUCK,CAPACITY
2	METERS	WEEKLY METER READINGS	904-VH-ZA-TR-1	1	W	OTTAWA,TRACTOR,YARD
2	METERS	WEEKLY METER READINGS	903-VH-FD-FEL-4	1	W	LOADER, KOMATSU WA200-5
2	METERS	WEEKLY METER READINGS	405-AC-2	1	W	COMPRESSOR, #2 PLANT AIR
2	METERS	WEEKLY METER READINGS	960-VH-TSW-1	1	W	SWEEPER,STREET:TENNANT
2	METERS	WEEKLY METER READINGS	405-AC-1	1	W	COMPRESSOR, #1 PLANT AIR
2	METERS	WEEKLY METER READINGS	901-VH-FD-FEL-3	1	W	LOADER, CAT 980F
2	METERS	WEEKLY METER READINGS	405-AC-3	1	W	COMPRESSOR, #3 PLANT AIR
2	METERS	WEEKLY METER READINGS	405-AC-4	1	W	COMPRESSOR, #4, APC AIR SUPPLY #1
2	METERS	WEEKLY METER READINGS	405-AC-5	1	W	COMPRESSOR, #5, APC AIR SUPPLY #2
2	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	490-WW-P-10B	1	Y	PUMP, #10B CLEARWELL
2	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	490-WW-P-8A	1	Y	PUMP, #8A TRANSFER
2	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	490-WW-P-8B	1	Y	PUMP, #8B TRANSFER
2	MOTOR ALIGNMENT	ALIGNMENT INSPECTION	490-WW-P-10A	1	Y	PUMP, #10A CLEARWELL
2	PH-CAL	WEEKLY LAB PH METER CAL	810-ZBB-1	1	W	BUILDINGS,CHEMICAL LAB
2	PHCAL1	CLEARWELL PH PROBE CALIBRATION	490-WW-TK-8	1	M	TANK, #8 CLEARWELL
2	PO4-RATE	CHECK PO4 TRANSFER PUMP RATE	810-ZBB-1	1	W	BUILDINGS,CHEMICAL LAB



2	PUTRUCK-OIL	CHANGE PICK-UP TRUCK OIL	950-VH-F250-1	0	D	TRUCK,FORD F250 PICKUP
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	475-AMC-RAV-1	3	M	ROTARY,LANE FLYASH MIXING CONV.
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	475-AMC-RAV-2	3	M	ROTARY,VALVE;:ASHTech CONVEYOR
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	295-FA-RAV-SH-2	3	M	ROTARY VALVE,SUPERHEATER #2
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	295-FA-RAV-EC-2	3	M	ROTARY VALVE:ECONOMIZER #2
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	195-FA-RAV-SH-1	3	M	ROTARY VALVE,SUPERHEATER #1
2	RTRY VLV INSP	ROTARY VALVE INSPECTION	195-FA-RAV-EC-1	3	M	ROTARY VALVE, ECON #1
2	SCRWINSP	SCREW CONVEYOR INSPECTION	640-SF-25A	1	M	CONVEYOR, SCREW, #1 LIME INJECT SYS
2	SCRWINSP	SCREW CONVEYOR INSPECTION	640-SF-25B	1	M	CONVEYOR, SCREW, #2 LIME INJECT SYS
2	SL-001	SET LEVEL		0		
2	SLUDGE-1	PUMP SLUDGE FROM CLARIFIER	490-WW-TK-6	1	SAT	TANK, #6 CLARIFIER
2	SPIN6M	SIX MONTH SLUDGE PUMP INSP.	490-WW-P-9A	6	M	PUMP, #9A SLUDGE
2	SPIN6M	SIX MONTH SLUDGE PUMP INSP.	490-WW-P-9B	6	M	PUMP, #9B SLUDGE
2	TANK LEVEL ALARM	TEST WASTE WATER TANK LEVEL ALARM	490-WW-TK-5	1	Y	TANK, #5 EQUALIZING
2	TANK LEVEL ALARM	TEST WASTE WATER TANK LEVEL ALARM	490-WW-TK-8	1	Y	TANK, #9 CLEARWELL
2	TCPLU2	TCP PUMP BEARING LUBE	710-TC-P-2	1	Y	PUMP,TURBINE CONDINSATE
2	TCPLU2	TCP PUMP BEARING LUBE	710-TC-P-1	1	Y	PUMP,TURBINE CONDINSATE
2	TECH1M	MONTHLY ASH CONDITIONER SERVICE	475-AMC-COND-1	1	M	CONVEYOR, #1 FLYASH MIXER LANE
2	TECH1M	MONTHLY ASH CONDITIONER SERVICE	475-AMC-COND-2	1	M	CONVEYOR;ASHTech MIXING
2	TECH2W	TWO WEEK ASH CONDITIONER LUBE	475-AMC-COND-2	2	W	CONVEYOR;ASHTech MIXING
2	TECH2W	TWO WEEK ASH CONDITIONER LUBE	475-AMC-COND-1	2	W	CONVEYOR, #1 FLYASH MIXER LANE
2	TECH2Y	TWO YEAR OVERHAUL	475-AMC-COND-2	2	Y	CONVEYOR;ASHTech MIXING
2	TECH3M	THREE MONTH SERVICE	475-AMC-COND-2	0	M	CONVEYOR;ASHTech MIXING
2	TECH6M	SIX MONTH ASHTech SERVICE	475-AMC-COND-2	0	M	CONVEYOR;ASHTech MIXING
2	TSW002	50 HOUR STREET SWEEPER INSP.	960-VH-TSW-1	1	W	SWEEPER,STREET: TENNANT
2	TSW003	100 HOUR STREET SWEEPER INSP.	960-VH-TSW-1	2	W	SWEEPER,STREET: TENNANT
2	TSW004	200 HOUR STREET SWEEPER INSP.	960-VH-TSW-1	1	M	SWEEPER,STREET: TENNANT
2	TSW006	800 HOUR STREET SWEEPER INSP.	960-VH-TSW-1	6	M	SWEEPER,STREET: TENNANT
2	VH01WK	WEEKLY 980 LOADER INSPECTION AND L	901-VH-FD-FEL-3	1	TUE	LOADER,FRONT END:CAT 980F
2	WRCCLCINGCHANGE	WRC CLOSING CABLE CHANGE PROCED	510-FD-CRCR-2	6	M	REDUCER, #2 CRANE CLOSING SPEE

Task No.	Description	Equipment No.	FREQ	CAL UNIT	Equipment Description
CLEAN-01	CLEAN COMPRESSOR ROOM	810-SDA-COMP	2	WED	SDA COMPRESSOR ROOM
CLEAN-01	CLEAN COMPRESSOR ROOM	810-ZH-1	2	WED	BUILDING,AIR COMPRESSOR ROOM
CLEAN-02	CLEAN MCC ROOMS	810-EDC-1	2	WED	BUILDING, MAIN MCC ROOM
CLEAN-02	CLEAN MCC ROOMS	810-EDC-2	2	WED	ELECTRICAL DISTRIBUTION CENTER #2, BH MC
CLEAN-02	CLEAN MCC ROOMS	810-EDC-3	2	WED	ELECTRICAL DISTRIBUTION CENTER #3, SDA
MP2PASSWORD	MP2 PASSWORD CHANGE, 90 DAY	810-ZO-1	90	D	BUILDINGS, OFFICE AREAS
RVW-CLS	REVIEW CHEMISTRY LOGS FOR SCANNING	GAR	1	M	GENERAL ADMINISTRATIVE REQUIREMENTS
SERV ADMIN WTR FILTR	SERVICE THE RO UNIT IN THE ADMIN BUILDING	810-ZO-1	1	Y	BUILDINGS, OFFICE AREAS
SERVER-01	PERFORM MONTHLY SERVER MAINTENANCE	810-ZC-1	1	M	BUILDINGS, CONTROL/MCC ROOMS
SERVERBAK01	MONTHLY VERIFY THE RESTORE OF THE TAPE BACKUP	810-ZC-1	1	M	BUILDINGS, CONTROL/MCC ROOMS
WKL-BCW-NITRITE	WEEKLY SAMPLE OF BCW FOR NITRITES	410	0	SAT	BCW SYSTEM
WLK-ASH-COND-CLN	WEEKLY ASH CONDITIONER CLEANING	475-AMC-COND-1	1	W	CONVEYOR, #1 FLYASH MIXER LANE
WLK-ASH-COND-CLN	WEEKLY ASH CONDITIONER CLEANING	475-AMC-COND-2	1	W	CONVEYOR;ASHTech MIXING

Task No.	Description	Equipment No.	FREQ	CAL UNIT	Equipment Description
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	100-TI-1160	1	Y	INDICATOR, #1160 DIGITAL EX O2
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	425-TI-380A	1	Y	INDICATOR,TEMP
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120E	1	Y	CONTROL, #1120E DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120D	1	Y	CONTROL, #1120D DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120C	1	Y	CONTROL, #1120C DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120B	1	Y	CONTROL, #1120B DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120A	1	Y	CONTROL, #1120A DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-ANN-1	1	Y	PANEL,ANNUNCIATOR UNIT #1
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	440-TI-430	1	Y	INDICATOR, #430 TEMP. STEAM
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	425-TI-493	1	Y	INDICATOR, #493 TEMP. COND.FR
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	425-TI-490	1	Y	INDICATOR,TEMP
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	460-FIC-1120F	1	Y	CONTROL, #1120F DIGITAL STATIO
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	120-TI-1100	1	Y	INDICATOR, #1100 DIGT. MSW FEE
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	130-LI-1350A	1	Y	INDICATOR, #1350A LEVEL #1 BLR
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	420-TI-1331	1	Y	INDICATOR, #1331 TEMP. BFW
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	OBSOLETE-TI-1130	1	Y	INDICATOR,TEMP
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	135-TI-1360	1	Y	INDICATOR,TEMP
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	165-V2T-1170	1	Y	MONITOR, #1170 VIBRATION FD FA
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	410-TE-635	1	Y	INDICATOR,TEMP
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	410-TI-1622	1	Y	INDICATOR, #1622 TEMP.
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	410-TI-1624	1	Y	INDICATOR, #1624 TEMP.
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	410-TI-1626	1	Y	INDICATOR, #1626 TEMP.
CAL-001	UNIT #1 YEARLY CONTROL BOARD CALIBRATION	420-FCV-1355	1	Y	VALVE, #1355 FLOW CONTROL
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	OBSOLETE-TI-21100	1	Y	INDICATOR,MSW
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-TT-450	1	Y	TRANSMITTER, #450 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120E	1	Y	CONTROL, #2120E DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120F	1	Y	CONTROL, #2120F DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-TT-2342	1	Y	TRANSMITTER, #2342 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-TT-440	1	Y	TRANSMITTER, #440 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120D	1	Y	CONTROL, #2120D DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-TT-455	1	Y	TRANSMITTER, #455 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-TT-641	1	Y	TRANSMITTER, #641 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	465-EI-475A	1	Y	INDICATOR,POWER
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	465-EI-475B	1	Y	INDICATOR,POWER
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	485-PI-690	1	Y	INDICATOR, #690 DIGITAL ACC PR
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120C	1	Y	CONTROL, #2120C DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	OBSOLETE-TT-1360B	1	Y	TRANSMITTER, #1360B TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	275-V2T-2280	1	Y	MONITOR, #2280 VIBRATION ID FA
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120B	1	Y	CONTROL, #2120B DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	200-TI-2160	1	Y	INDICATOR, #2160 DIGITAL EX O2
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	175-V2T-2180	1	Y	MONITOR, #2180 VIBRATION ID FA
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	230-LI-2350A	1	Y	INDICATOR,LEVEL #2 YARWAY

CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	265-V2T-2170	1	Y	MONITOR, #2170 VIBRATION FD FA
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	410-TI-2622	1	Y	INDICATOR, #2622 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	410-TI-2624	1	Y	INDICATOR, #2624 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	410-TI-2626	1	Y	INDICATOR, #2626 TEMP.
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	420-FCV-2355	1	Y	VALVE, #2355 FLOW CONTROL
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	420-TI-2331	1	Y	INDICATOR, #2331 TEMP. BFW
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-ANN-2	1	Y	PANEL,ANNUNCIATOR #2
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	460-FIC-2120A	1	Y	CONTROL, #2120A DIGITAL STATIO
CAL-002	UNIT #2 YEARLY CONTROL BOARD CALIBRATION	235-TI-2360	1	Y	INDICATOR,TEMP
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	460-ANN-3	1	Y	PANEL,ANNUNCIATOR COMMON
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	435-PT-470	1	Y	TRANSMITTER, #470 PRESSURE
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	460-ANN-4	1	Y	PANEL,ANNUNCIATOR T/G
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	440-PT-420	1	Y	TRANSMITTER, #420 PRESSURE
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	435-PSH-470	1	Y	TURBINE STEAM PRESSURE
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	410-TI-2622	1	Y	INDICATOR, #2622 TEMP.
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	410-TI-1622	1	Y	INDICATOR, #1622 TEMP.
CAL-003	TURBINE/GENERATOR YEARLY CALIBRATION	435-PSL-470	1	Y	TURBINE STEAM PRESSURE
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1185	1	Y	TRANSMITTER, #1185 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PI-1110	1	Y	GAUGE, #1110 PRESS. (CA TO RC)
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PI-1360	1	Y	GAUGE, #1360 PRESS. # 1 RC STM
CAL-004	#1 BOILER OUTAGE CALIBRATION	OBSOLETE-FT-1140	1	Y	TRANSMITTER, FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PT-1185	1	Y	TRANSMITTER, #1185 PRESSURE
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PT-1360	1	Y	TRANSMITTER, #1360 PRESSURE
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1100A	1	Y	TRANSMITTER, #1100A TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1110	1	Y	TRANSMITTER, #1110 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1160A	1	Y	TRANSMITTER, #1160A TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1160B	1	Y	TRANSMITTER, #1160B TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1165A	1	Y	TRANSMITTER, #1165A TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1165B	1	Y	TRANSMITTER, #1165B TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TY-1160	1	Y	TRANSMITTER, #1160 ADDER
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1180B	1	Y	TRANSMITTER, #1180B TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1187	1	Y	TRANSMITTER, #1187 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1290	1	Y	TRANSMITTER, #1290 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1332	1	Y	TRANSMITTER, #1332 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1341	1	Y	TRANSMITTER, #1341 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1342	1	Y	TRANSMITTER, #1342 TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1360A	1	Y	TRANSMITTER, #1360A TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PI-1290	1	Y	GAUGE, #1290 PRESS. (RC ECON)
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1185	1	Y	TRANSMITTER, #1185 FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-TT-1180A	1	Y	TRANSMITTER, #1180A TEMP.
CAL-004	#1 BOILER OUTAGE CALIBRATION	420-FT-1350	1	Y	TRANSMITTER, #1350 FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120F	1	Y	TRANSMITTER, #1120F FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	420-FCV-1350	1	Y	VALVE, #1350 FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	420-PI-1330A	1	Y	GAUGE, #1330A PRESS. BFW @ RC

CAL-004	#1 BOILER OUTAGE CALIBRATION	420-PI-1330B	1	Y	GAUGE, #1330B PRESS. BFW @ RC
CAL-004	#1 BOILER OUTAGE CALIBRATION	420-PSL-1330A	1	Y	SWITCH, #1330A LOW PRESS. BFW
CAL-004	#1 BOILER OUTAGE CALIBRATION	430-FT-1340	1	Y	TRANSMITTER, #1340 FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	430-PI-1340A	1	Y	GAUGE, #1340A PRESS. FC/RC #1
CAL-004	#1 BOILER OUTAGE CALIBRATION	430-PI-1340B	1	Y	GAUGE, #1340B PRESS. FC/RC #1
CAL-004	#1 BOILER OUTAGE CALIBRATION	430-PI-1342	1	Y	GAUGE, #1342 PRESS. #1 RC @ RJ
CAL-004	#1 BOILER OUTAGE CALIBRATION	435-FT-1360	1	Y	TRANSMITTER, #1360 FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120A	1	Y	VALVE, #1-1 C.A. FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120D	1	Y	TRANSMITTER, #1120D FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	115-PI-1400	1	Y	GAUGE, #1400 PRESS. HYD. FLUID
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120B	1	Y	VALVE, #1-2 C.A. FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120E	1	Y	TRANSMITTER, #1120E FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-PT-1160	1	Y	TRANSMITTER, #1160 PRESSURE
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120C	1	Y	TRANSMITTER, #1120C FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120D	1	Y	VALVE, #1-4 C.A. FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120A	1	Y	TRANSMITTER, #1120A FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120F	1	Y	VALVE, #1-6 C.A. FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120E	1	Y	VALVE, #1-5 C.A. FLOW CONTROL
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FT-1120B	1	Y	TRANSMITTER, #1120B FLOW
CAL-004	#1 BOILER OUTAGE CALIBRATION	460-FCV-1120C	1	Y	VALVE, #1-3 C.A. FLOW CONTROL
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2165A	1	Y	TRANSMITTER, #2165A TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2160B	1	Y	TRANSMITTER, #2160B TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2160A	1	Y	TRANSMITTER, #2160A TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2110	1	Y	TRANSMITTER, #2110 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PT-2185	1	Y	TRANSMITTER, #2185 PRESSURE
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PT-2360	1	Y	TRANSMITTER, #2360 PRESSURE
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2165B	1	Y	TRANSMITTER, #2165B TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TY-2160	1	Y	TRANSMITTER, #2160 ADDER
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PT-2160	1	Y	TRANSMITTER, #2160 PRESSURE
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2100A	1	Y	TRANSMITTER, #2100A TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2180A	1	Y	TRANSMITTER, #2180A TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2180B	1	Y	TRANSMITTER, #2180B TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2185	1	Y	TRANSMITTER, #2185 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2187	1	Y	TRANSMITTER, #2187 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2290	1	Y	TRANSMITTER, #2290 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2341	1	Y	TRANSMITTER, #2341 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	OBSOLETE-FT-2140	1	Y	TRANSMITTER, FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	OBSOLETE-PCV-1360	1	Y	VALVE, PRESSURE
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PI-2360	1	Y	GAUGE, #2360 PRESS. # 2 RC STM
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120E	1	Y	TRANSMITTER, #2120E FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-TT-2332	1	Y	TRANSMITTER, #2332 TEMP.
CAL-005	#2 BOILER OUTAGE CALIBRATION	420-FCV-1330	1	Y	VALVE, FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2185	1	Y	TRANSMITTER, #2185 FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	215-PI-2400	1	Y	GAUGE, #2400 PRESS. HYD. FLUID

CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PI-2290	1	Y	GAUGE, #2290 PRESS. (RC ECON)
CAL-005	#2 BOILER OUTAGE CALIBRATION	420-FCV-2350	1	Y	VALVE, #2350 FLOW CONTROL
CAL-005	#2 BOILER OUTAGE CALIBRATION	420-FT-2350	1	Y	TRANSMITTER, #2350 FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	420-PI-2330B	1	Y	GAUGE, #2330B PRESS. BFW @ RC
CAL-005	#2 BOILER OUTAGE CALIBRATION	420-PSL-2330A	1	Y	SWITCH, #2330A LOW PRESS. BFW
CAL-005	#2 BOILER OUTAGE CALIBRATION	430-FT-2340	1	Y	TRANSMITTER, #2340 FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	430-PI-2340A	1	Y	GAUGE, #2340A PRESS. FC/RC #2
CAL-005	#2 BOILER OUTAGE CALIBRATION	430-PI-2340B	1	Y	GAUGE, #2340B PRESS. FC/RC #2
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120F	1	Y	TRANSMITTER, #2120F FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	430-PI-2342	1	Y	GAUGE, #2342 PRESS. #2 RC @ RJ
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-PI-2110	1	Y	GAUGE, #2110 PRESS. (CA TO RC)
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120D	1	Y	TRANSMITTER, #2120D FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120C	1	Y	TRANSMITTER, #2120C FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120B	1	Y	TRANSMITTER, FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	460-FT-2120A	1	Y	TRANSMITTER, #2120A FLOW
CAL-005	#2 BOILER OUTAGE CALIBRATION	435-FT-2360	1	Y	TRANSMITTER, #2360 FLOW
CAL-006	PLANT OUTAGE CALIBRATION	440-PY-440	1	Y	VALVE, 440- 6-30 PSI
CAL-006	PLANT OUTAGE CALIBRATION	490-PSL-550	1	Y	SWITCH, #550 LOW PRESS. CRWELL
CAL-006	PLANT OUTAGE CALIBRATION	485-PI-675	1	Y	GAUGE, #675 PRESS. COND FLT PM
CAL-006	PLANT OUTAGE CALIBRATION	445-PT-450	1	Y	TRANSMITTER, #450 PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	460-TT-430	1	Y	TRANSMITTER, #430 TEMP.
CAL-006	PLANT OUTAGE CALIBRATION	485-PI-490A	1	Y	GAUGE, #490A PRESS. COND. RECV
CAL-006	PLANT OUTAGE CALIBRATION	485-PI-490B	1	Y	GAUGE, #490B PRESS. COND. RECV
CAL-006	PLANT OUTAGE CALIBRATION	485-PI-660	1	Y	GAUGE, #660 PRESS. STM. EJECTO
CAL-006	PLANT OUTAGE CALIBRATION	440-TI-420	1	Y	INDICATOR, #420 TEMP. SH STEAM
CAL-006	PLANT OUTAGE CALIBRATION	485-PSL-650	1	Y	SWITCH, #650 LOW PRESS. ACC CON
CAL-006	PLANT OUTAGE CALIBRATION	485-PT-690	1	Y	TRANSMITTER, #690 PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	490-PI-550	1	Y	GAUGE, #550 PRESS. CLR. WELL PU
CAL-006	PLANT OUTAGE CALIBRATION	OBSOLETE-PT-450	1	Y	TRANSMITTER, #450 PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	490-PSL-540	1	Y	PROBE STEAM LEVEL
CAL-006	PLANT OUTAGE CALIBRATION	OBSOLETE-TI-496	1	Y	INDICATOR, #496 TEMP. COND. FR
CAL-006	PLANT OUTAGE CALIBRATION	OBSOLETE-PCV-2360	1	Y	VALVE, PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	440-PY-420	1	Y	VALVE, 420- 6-30 PSI
CAL-006	PLANT OUTAGE CALIBRATION	410-PSL-620	1	Y	SWITCH, #620 LOW PRESS. BCW PU
CAL-006	PLANT OUTAGE CALIBRATION	490-PSL-520	1	Y	PROBE, STEAM LEVEL
CAL-006	PLANT OUTAGE CALIBRATION	425-PCV-381	1	Y	VALVE, #381 PRESS. CONTROL- DA
CAL-006	PLANT OUTAGE CALIBRATION	420-FCV-2330	1	Y	VALVE, FLOW
CAL-006	PLANT OUTAGE CALIBRATION	410-TI-620	1	Y	INDICATOR, #620 TEMP. BCW EXIT
CAL-006	PLANT OUTAGE CALIBRATION	425-LC-490	1	Y	VALVE, #490 LEVEL CONTROL COND
CAL-006	PLANT OUTAGE CALIBRATION	425-LCV-380	1	Y	VALVE, #380 LEVEL CONTROL DA
CAL-006	PLANT OUTAGE CALIBRATION	440-PT-420	1	Y	TRANSMITTER, #420 PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	425-LCV-670B	1	Y	VALVE, LEVEL CONTROL, HOTWELL
CAL-006	PLANT OUTAGE CALIBRATION	425-PI-380A	1	Y	GAUGE, #380A PRESSURE (DA)
CAL-006	PLANT OUTAGE CALIBRATION	425-PI-380B	1	Y	GAUGE, #380B PRESSURE (DA)

CAL-006	PLANT OUTAGE CALIBRATION	425-TI-380B	1	Y	INDICATOR, #380B TEMP. DA
CAL-006	PLANT OUTAGE CALIBRATION	425-TI-675	1	Y	INDICATOR, #675 TEMP. COND TK
CAL-006	PLANT OUTAGE CALIBRATION	425-TI-680	1	Y	INDICATOR, #680 TEMP. ACC COND
CAL-006	PLANT OUTAGE CALIBRATION	435-PT-470	1	Y	TRANSMITTER, #470 PRESSURE
CAL-006	PLANT OUTAGE CALIBRATION	440-PCV-420	1	Y	VALVE, #420 PRESS. CONTROL MED
CAL-006	PLANT OUTAGE CALIBRATION	440-PCV-440	1	Y	VALVE, #440 PRESS. CONTROL
CAL-006	PLANT OUTAGE CALIBRATION	440-PI-420	1	Y	GAUGE, #420 PRESS. STM. MED.HD
CAL-006	PLANT OUTAGE CALIBRATION	425-LCV-670A	1	Y	VALVE, #670 LEVEL CONTROL
GEAIN4	YEARLY/OUTAGE INSPECTION	485-ACC-F-4	1	Y	FAN,ACC #4/NEW
GEAIN4	YEARLY/OUTAGE INSPECTION	485-ACC-F-5	1	Y	FAN,ACC TUBE BUNDLE
OPPM-REVIEW	REVIEW OUTSTANDING OP	810-ZB-1	1	SAT	BUILDINGS, BOILER ROOM
OUT-AIRHT-OPS	INSPECT AIR HEATER	100-BL-1	6	M	BOILER #1
OUT-AIRHT-OPS	INSPECT AIR HEATER	200-BL-2	6	M	BOILER, #2
OUT-BAC-MAINT	BAC INSPECTION, MAINT	410-BAC-1	0	D	
OUT-BAC-MAINT	BAC INSPECTION, MAINT	410-BAC-1	6	M	COOLER,BALTIMORE AIRCOIL
OUT-BA-MAINT	BOTTOM ASH CONV INSPECTION, MAINT	190-BA-CONV-1	6	M	BOTTOM ASH CONVEYOR #1
OUT-BA-MAINT	BOTTOM ASH CONV INSPECTION, MAINT	290-BA-CONV-2	6	M	BOTTOM ASH CONVEYOR #2
OUT-BH1-MAINT		185-BGH-1	0	D	
OUT-BHINLET-OPS	INSPECT DUCT TO BAGHOUSE	285-BGH-2	6	M	BAGHOUSE #2
OUT-BHINLET-OPS	INSPECT DUCT TO BAGHOUSE	185-BGH-1	6	M	BAGHOUSE #1
OUT-BH-MAINT	BAGHOUSE INSPECTION, MAINT	185-BGH-1	6	M	BAGHOUSE #1
OUT-BH-MAINT	BAGHOUSE INSPECTION, MAINT	285-BGH-2	6	M	BAGHOUSE #2
OUT-BH-OPS	BAGHOUSE INSPECTION-OPERATIONS	185-BGH-1	6	M	BAGHOUSE #1
OUT-BH-OPS	BAGHOUSE INSPECTION-OPERATIONS	285-BGH-2	6	M	BAGHOUSE #2
OUT-BOILERHYDRO-OPS	HYDRO INSPECT BOILER	100-BL-1	6	M	BOILER #1
OUT-BOILERHYDRO-OPS	HYDRO INSPECT BOILER	200-BL-2	6	M	BOILER, #2
OUT-BULLNOSE-INSP-OP	INSPECT WATERWALL TUBES BULLNOSE	127-FURNACE	6	M	FURNACE, BLR #1
OUT-BULLNOSE-INSP-OP	INSPECT WATERWALL TUBES BULLNOSE	227-FURN	6	M	FURNACE, BLR #2
OUT-CNV-INSP-OPS	INSPECT CONVECTION BANK	130-CONVECT	6	M	CONVECTION BANK, BLR #1
OUT-CNV-INSP-OPS	INSPECT CONVECTION BANK	230-CONV-BANK-2	6	M	BOILER #2 CONVECTION BANK
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120B		6	M	VALVE, #1-2 C.A. FLOW CONTROL
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120C		6	M	VALVE, #1-3 C.A. FLOW CONTROL
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120D		6	M	VALVE, #1-4 C.A. FLOW CONTROL
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120E		6	M	VALVE, #1-5 C.A. FLOW CONTROL
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120F		6	M	VALVE, #1-6 C.A. FLOW CONTROL
OUT-COMBAIR1-MAINT	#1 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-1120A		6	M	VALVE, #1-1 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120E		6	M	VALVE, #2-5 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120A		6	M	VALVE, #2-1 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120F		6	M	VALVE, #2-6 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120D		6	M	VALVE, #2-4 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120B		6	M	VALVE, #2-2 C.A. FLOW CONTROL
OUT-COMBAIR2-MAINT	#2 COMBUSTION AIR DAMPER AND EXPANSION JC 460-FCV-2120C		6	M	VALVE, #2-3 C.A. FLOW CONTROL
OUT-COMB-AIR-OP	CLEARING COMBUSTION AIR HOLES	100-BL-1	6	M	BOILER #1
OUT-COMB-AIR-OP	CLEARING COMBUSTION AIR HOLES	200-BL-2	6	M	BOILER, #2

OUT-ECODCT-OPS	INSPECT ECON OUTLET DUCT	140-ECON	6	M	ECONOMIZER, BLR #1
OUT-ECODCT-OPS	INSPECT ECON OUTLET DUCT	240-ECON	6	M	ECONOMIZER, BLR #2
OUT-FDFAN-MAINT	FD FAN INSPECTION, MAINT	265-CA-FD-2	6	M	FAN, #2 FORCE DRAFT
OUT-FDFAN-MAINT	FD FAN INSPECTION, MAINT	165-CA-FD-1	6	M	FAN, #1 FORCE DRAFT
OUT-FDFAN-OP	FD FAN OUTAGE INSPECTION	165-CA-FD-1	6	M	FAN, #1 FORCE DRAFT
OUT-FDFAN-OP	FD FAN OUTAGE INSPECTION	265-CA-FD-2	6	M	FAN, #2 FORCE DRAFT
OUT-FEEDCHUTE-OPS	FEED CHUTE INTERNAL INSPECTION-OPERATIONS	105-BL-FH-1	6	M	HOPPER, #1 COMBUSTOR
OUT-FEEDCHUTE-OPS	FEED CHUTE INTERNAL INSPECTION-OPERATIONS	205-BL-FH-2	6	M	HOPPER, #2 COMBUSTOR
OUT-FEEDHOPPER-OPS	FEED CHUTE/HOPPER INSPECTION-OPERATIONS	205-BL-FH-2	6	M	HOPPER, #2 COMBUSTOR
OUT-FEEDHOPPER-OPS	FEED CHUTE/HOPPER INSPECTION-OPERATIONS	105-BL-FH-1	6	M	HOPPER, #1 COMBUSTOR
OUT-FURNACE-INSP-OPS	INSPECT FURNACE	127-FURNACE	6	M	FURNACE, BLR #1
OUT-FURNACE-INSP-OPS	INSPECT FURNACE	227-FURN	6	M	FURNACE, BLR #2
OUT-GRATE-MAINT	OUTAGE GRATE INSPECTION, MAINT	125-BL-TG-1	6	M	GRATE, #1 BLR. TRAVELING GRATE
OUT-GRATE-MAINT	OUTAGE GRATE INSPECTION, MAINT	225-BL-TG-2	6	M	GRATE, #2 BLR. TRAVELING GRATE
OUT-HYD-MAINT	HYDRAULIC UNIT INSPECTION, MAINT	115-HP-HU-1	6	M	UNIT, #1 HYDRAULIC RESERVOIR
OUT-HYD-MAINT	HYDRAULIC UNIT INSPECTION, MAINT	215-HP-HU-2	6	M	UNIT, #2 HYDRAULIC RESERVOIR
OUT-IDFAN-MAINT	ID FAN INSPECTION, MAINT	175-FA-ID-1	6	M	FAN, #1 INDUCTED DRAFT
OUT-IDFAN-MAINT	ID FAN INSPECTION, MAINT	275-FA-ID-2	6	M	FAN, #2 INDUCTED DRAFT
OUT-IDFAN-OP	ID FAN OUTAGE INSPECTION	175-FA-ID-1	6	M	FAN, #1 INDUCTED DRAFT
OUT-IDFAN-OP	ID FAN OUTAGE INSPECTION	275-FA-ID-2	6	M	FAN, #2 INDUCTED DRAFT
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	640-SDA-1	0	D	SDA #1, VESSEL
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	640-SDA-2	0	D	SDA #2, VESSEL
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-6	0	D	COMPARTMENT, # 2-6 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-5	0	D	COMPARTMENT, # 2-5 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-3	0	D	COMPARTMENT, # 2-3 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-2	0	D	COMPARTMENT, # 2-2 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-1	0	D	COMPARTMENT, # 2-1 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-6	0	D	COMPARTMENT, # 1-6 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-5	0	D	COMPARTMENT, # 1-5 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	285-BGH-CP-2-4	0	D	COMPARTMENT, # 2-4 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-1	0	D	COMPARTMENT, #1-1 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-2	0	D	COMPARTMENT, #1-2 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-3	0	D	COMPARTMENT, # 1-3 BAGHOUSE
OUT-INSPDDD-MAINT	INSPECT FLAPPER VALVE ASSEMBLY	185-BGH-CP-1-4	0	D	COMPARTMENT, # 1-4 BAGHOUSE
OUT-RAM-MAINT	MAINTENANCE RAM FEEDER INSPECTION	110-RC-RF-1-W	6	M	RAM FEEDER,UNIT 1 WEST
OUT-RAM-MAINT	MAINTENANCE RAM FEEDER INSPECTION	210-RC-RF-2-E	6	M	RAM FEEDER,UNIT 2 EAST
OUT-RAM-MAINT	MAINTENANCE RAM FEEDER INSPECTION	210-RC-RF-2-W	6	M	RAM FEEDER,UNIT 2 WEST
OUT-RAM-MAINT	MAINTENANCE RAM FEEDER INSPECTION	110-RC-RF-1-E	6	M	RAM FEEDER,UNIT 1 EAST
OUT-RAMS-OPS	RAM-INSPECTION-OPERATIONS	110-RC-RF-1-E	6	M	RAM FEEDER,UNIT 1 EAST
OUT-RAMS-OPS	RAM-INSPECTION-OPERATIONS	210-RC-RF-2-W	6	M	RAM FEEDER,UNIT 2 WEST
OUT-RAMS-OPS	RAM-INSPECTION-OPERATIONS	110-RC-RF-1-W	6	M	RAM FEEDER,UNIT 1 WEST
OUT-RAMS-OPS	RAM-INSPECTION-OPERATIONS	210-RC-RF-2-E	6	M	RAM FEEDER,UNIT 2 EAST
OUT-RCEXT-OPS	COMBUSTOR EXTERNAL INSPECTION-OPERATION	220-RC-2	6	M	COMBUSTER, #2 ROTARY
OUT-RCEXT-OPS	COMBUSTOR EXTERNAL INSPECTION-OPERATION	120-RC-1	6	M	COMBUSTER, # 1 ROTARY



OUT-RCINT-OPS	COMBUSTOR INTERNAL INSPECTION-OPERATION: 120-RC-1	6	M	COMBUSTER, # 1 ROTARY
OUT-RCINT-OPS	COMBUSTOR INTERNAL INSPECTION-OPERATION: 220-RC-2	6	M	COMBUSTER, #2 ROTARY
OUT-RC-MAINT	MAINTENANCE ROTARY COMBUSTOR INSPECTION 120-RC-1	6	M	COMBUSTER, # 1 ROTARY
OUT-RC-MAINT	MAINTENANCE ROTARY COMBUSTOR INSPECTION 220-RC-2	6	M	COMBUSTER, #2 ROTARY
OUT-SDA-OP	OUTAGE INSPECTION OF SDA 640-SDA-2	6	M	SDA #2, VESSEL
OUT-SDA-OP	OUTAGE INSPECTION OF SDA 640-SDA-1	6	M	SDA #1, VESSEL
OUT-SH-INSP-OPS	INSPECT SUPERHEATERS 135-SH-PRI	6	M	SUPERHEATER, PRIMARY, BLR #1
OUT-SH-INSP-OPS	INSPECT SUPERHEATERS 235-SH-FIN	6	M	SUPERHEATER, FINISHING, BLR #2
OUT-SH-INSP-OPS	INSPECT SUPERHEATERS 235-SH-PRI	6	M	SUPERHEATER, PRIMARY, BOILER #2
OUT-SH-INSP-OPS	INSPECT SUPERHEATERS 135-SH-FINISH	6	M	SUPERHEATER, FINISHING, BLR #1
OUT-SIFT-MAINT	SIFTINGS CONV INSPECTION, MAINT 190-SA-CONV-1	6	M	CONVEYOR, #1 SIFTING ASH
OUT-SIFT-MAINT	SIFTINGS CONV INSPECTION, MAINT 290-SA-CONV-2	6	M	CONVEYOR, #2 SIFTING ASH
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-5	6	M	SOOTBLOWER, #1-5 ROTARY
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-9	6	M	SOOTBLOWER, #1-9 ROTARY
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-8	6	M	SOOTBLOWER, #1-8 ROTARY
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-6	6	M	SOOTBLOWER, #1-6 ROTARY
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-4	6	M	SOOTBLOWER, #1-4 RETRACTABLE
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-3	6	M	SOOTBLOWER, #1-3 RETRACTABLE
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-2	6	M	SOOTBLOWER, #1-2 RETRACTABLE
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-10	6	M	SOOTBLOWER, #1-10 ROTARY
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-1	6	M	SOOTBLOWER, #1-1 RETRACTABLE
OUT-SOOT1-MAINT	#1 SOOTBLOWER INSPECTION, MAINT 145-BL-SB-1-7	6	M	SOOTBLOWER, #1-7 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-8	6	M	SOOTBLOWER, #2-8 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-10	6	M	SOOTBLOWER, #2-10 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-9	6	M	SOOTBLOWER, #2-9 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-7	6	M	SOOTBLOWER, #2-7 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-6	6	M	SOOTBLOWER, #2-6 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-5	6	M	SOOTBLOWER, #2-5 ROTARY
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-4	6	M	SOOTBLOWER, #2-4 RETRACTABLE
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-2	6	M	SOOTBLOWER, #2-2 RETRACTABLE
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-1	6	M	SOOTBLOWER, #2-1 RETRACTABLE
OUT-SOOT2-MAINT	#2 SOOTBLOWER INSPECTION, MAINT 245-BL-SB-2-3	6	M	SOOTBLOWER, #2-3 RETRACTABLE
OUT-TGRATE-INSP-OPS	INSPECT TRAVEL GRATE 125-BL-TG-1	6	M	GRATE, #1 BLR. TRAVELING GRATE
OUT-TGRATE-INSP-OPS	INSPECT TRAVEL GRATE 225-BL-TG-2	6	M	GRATE, #2 BLR. TRAVELING GRATE
OUT-THERM-MAINT	THERMOCOUPLE INSPECTION, MAINT 460-COMBCONT-SYS	6	M	COMBUSTION CONTROL SYSTEM
OUT-TURBINE-MAINT	TURBINE GENERATOR INSPECTION, MAINT 710-TG-1	6	M	TURBINE, #1 GENERATOR
OUT-WASH-INSP-OPS	INSPECT BOILER WATERWASH 100-BL-1	6	M	BOILER #1
OUT-WASH-INSP-OPS	INSPECT BOILER WATERWASH 200-BL-2	6	M	BOILER, #2
OUT-WINDBOX-OPS	INSPECT ALL THREE WINDBOXES 220-RC-2	6	M	COMBUSTER, #2 ROTARY
OUT-WINDBOX-OPS	INSPECT ALL THREE WINDBOXES 120-RC-1	6	M	COMBUSTER, # 1 ROTARY
TGIN1Y	YEARLY TURBINE INSPECTION 710-TG-1	1	Y	TURBINE, #1 GENERATOR
TGTG1Y	YEARLY TURNING GEAR INSP. 710-TG-TG-1	1	Y	GEAR, #1 TURBINE TURNING

### **3.0 PERSONNEL TRAINING**

#### **3.1 PERSONNEL TRAINING NARRATIVE**

Facility personnel are required to review the Operations and Maintenance Manual and the Environmental Management System Manual annually. A person who is certified pursuant to American Society of Mechanical Engineers Qualification and Certification of Resource Recovery Facility Operators (ASME-QRO) shall direct the operation of the Facility.

Facility operating personnel are required to successfully complete a program of computer interactive instructions, classroom instructions, and on-the-job training that teaches them to perform their duties in a way that ensures the Facility's compliance with the requirements of the permits to operate (6 NYCRR part 360-3.3(g)). The Facility Manager directs this program.

The training program is designed to ensure that the Facility personnel are able to operate and maintain the plant in a safe condition. Additionally, the training program is designed to ensure that Facility personnel are able to respond effectively to emergencies by familiarizing them with emergency detection procedures, equipment, and systems, including procedures for using, inspecting, repairing, and replacing Facility emergency and monitoring equipment.

The outline for Operations, Maintenance, and Safety Basic Training (see Appendix 3-1 located at the end of this section) gives the training subjects for the computer interactive training program.

The outline for the Classroom Training (see Appendix 3-2 located at the end of this section) gives the training subjects for the classroom training.

The Qualifications Checklist (see Appendix 3-3 located at the end of this section) gives the details on the required knowledge for the operations personnel and serves as a guide for on-the-job training.

On-the-job training is to be a large part of the required program to ensure all personnel receive the necessary hands-on instruction required. Equipment suppliers of specific subsystems and service companies are required to offer training programs to plant personnel for additional training as part of the purchase orders for their equipment and services.

### **3.2 EMERGENCY OPERATIONS PROCEDURES**

The following Emergency Operations Procedures are provided in the Appendices located at the end of this section (see Appendix 3-4):

EO-EO-10	Vacuum Loss Due to Air Ejector Malfunction
EO-EO-11	Loss of Induced Draft Fan
EO-EO-12	Loss of Forced Draft Fan
EO-EO-13	Loss of Boiler Feed Pumps
EO-EO-14	Loss of Forced Circulation Pump
EO-EO-15	Loss of Rams
EO-EO-16	Loss of Hydraulic Package
EO-EO-17	Loss of Combustor Rotation
EO-EO-18	Loss of Condensate Pump
EO-EO-19	Loss of Air Compressor
EO-EO-20	Loss of Bearing Cooling Water
EO-EO-21	Loss of Turbine
EO-EO-22	Loss of Generator
EO-EO-24	Baghouse Fire
FW-EO-01	Shutdown for Loss of the Boiler Feed System
RC-EO-02	Shutdown for Loss of Combustor Forced Circulation Water
HY-EO-06	Shutdown for Loss of Hydraulic Ram Package

### **3.3 CASUALTY PROCEDURES**

The following Casualty Procedures are provided in the Appendices located at the end of this section (see Appendix 3-5):

CA-OP-18	Loss of the Forced Draft Fan
CA-OP-19	Loss of Induced Draft Fan
CD-EO-08	Loss of Condensate Forwarding Pump Flow
CM-EO-03	Loss of Control System
OP-AB-20	High Opacity
PD-EO-07	Loss of Station Service

### 3.4 OPERATIONS PROCEDURES

The following Operations Procedures are provided in the Appendices located at the end of this section (see Appendix 3-6).

#### STARTUP/SHUTDOWN PROCEDURE

TG-OP-01	Elliott Turbine/Ideal Generator Startup, Operations, Shutdown, and Emergency Shutdown
RC-OP-26	O'Connor Rotary Combustor/Deltak Boiler
TG-OP-26	Stopping the Motorization of the Generator
BL-OP-21	Shutdown Procedure for Leaking Boiler Tube
OP-OP-01	Plant Startup after an Emergency Shutdown
BL-OP-13	One Boiler Operation

#### OPERATING PROCEDURE

AA-LA-01	Laboratory Analysis of Ash for Percent Moisture
AA-LA-02	Ash Sampling for Volatile Analysis
AA-LA-03	Laboratory Analysis of Ash for Percent Volatiles
AA-LA-04	Semi-annual Ash Testing
AA-OP-24	Ash Handling System
BA-GL-02	Bottom Ash Reduction
BC-OP-25	Bearing Cooling Water System
BL-EO-04	Loss of Bearing Cooling Water
BL-OP-09	Furnace Temperature/Flame Limitations
BI-OP-10	Boiler/Combustor Hydrostatic Test Procedure
BG-OP-26	Zurn Baghouse Operating Procedure
CA-GL-09	Combustion Control
CS-GL-12	Control System Logic and Changes
FD-GL-06	Wet MSW Operating Guidelines
FD-OP-16	Houseload Reduction Procedure
OP-OP-08	Recovering of Steam Flow after Experiencing Low Bed Profile
RC-GL-01	Controlling the Bed Profile in the O'Connor Rotary Combustor
RC-GL-10	Carbon Monoxide Control in the O'Connor Rotary Combustor
TG-OP-20	Operation of Turbine Generator Trip Switch
TG-OP-22	Reardon Pressure Control Valve
WW-GL-08	Sump Management Routine

## **SECTION 3.0**

## **APPENDICES**

**APPENDIX 3-1**

**COVANTA HUDSON VALLEY TRAINING PROGRAM**

**COVANTA HUDSON VALLEY TRAINING PROGRAM**  
**Basic Training for Operations and Maintenance Staff**

**Maintenance**

**BEARINGS**

- Fundamentals
- Rolling Contact
- Sliding Surface

**CIRCUIT BREAKERS**

- Breakers and Switchgear 1
- Breakers and Switchgear 2

**COMPRESSORS**

- Reciprocating
- Centrifugal

**DIAGRAMS**

- Industrial Process Systems
- Electrical
- Blueprints

**ELECTRICAL THEORY**

- Basic Electricity Review
- AC Circuits

**FORKLIFTS**

- Operation

**GEARS**

- Types and Characteristics
- Overhauls

**HYDRAULICS**

- Principles and Circuits
- Diagrams
- Pumps
- Actuators
- Fluid & Reservoirs
- Valves 1
- Valves 2
- Routine Maintenance
- Troubleshooting
- Component Inspection & Replacement

**LUBRICANTS**

- Basics

**MATH**

- Basics

**PIPES & VALVES**

- Pipes and Pipe Fittings
- Valve Types and Operation
- Valve Maintenance
- Steam Traps
- Motor Operators

**PUMPS**

- Centrifugal Pump Basics and Troubleshooting
- Centrifugal Pump Overhaul
- Multistage Centrifugal
- Positive Displacement Pumps

**RIGGING**

- Overview
- Basic Lifting
- Heavy Lifting
- Ladders and Scaffolds

**SAFETY**

- Basics
- Chemical Health Hazards
- Electrical

**SEALS**

- Gaskets and Packing
- Mechanical

**SHAFT ALIGNMENT**

- Fundamentals
- Rim and Face
- Reverse Dial and Laser

**VIBRATION ANALYSIS**

- Introduction

**WELDING**

- Oxy-fuel Gas Welding
- Arc Welding

**Operations**

## BOILERS

- Basic Principles and Types
- Combustion, Water, and Steam
- Water and Steam
- Combustion and Operation

## CHEMISTRY

- Basic Principles - 1
- Basic Principles - 2

## COMPRESSORS

- Introduction
- Positive Displacement
- Centrifugal and Axial
- Operation of Axial and Centrifugal Types

## DIAGRAMS

- Basic Diagrams and Symbols - 1
- Basic Diagrams and Symbols - 2
- Flow and Electrical
- Piping and Instrumentation

## ELECTRICAL EQUIPMENT

- Electrical Production & Distribution
- Transformers, Breakers & Switches
- AC and DC Motors
- Motor Controllers and Operation

## ENVIRONMENTAL PROTECTION

- Air Pollution
- Water Pollution and Waste Disposal

## EQUIPMENT LUBRICATION

- Lubricants and Bearings
- Using Lubricants

## HEAT EXCHANGERS

- Introduction
- Operation of Shell and Tube Types
- Cooling Towers

## INDUSTRIAL MATH

- Basic Operations - 1
- Basic Operations - 2

## Algebra

- Formulas, Graphs, and Trends

## INSTRUMENTATION AND CONTROL

- Measurement of Pressure and Temperature
- Measurement of Level and Flow
- Transmitters, Indicators, and Recorders

- Basic Control Instruments
- Automatic Process Control - 1
- Automatic Process Control - 2
- Principles of Digital Control

- Digital Control Systems

## OPERATION

- Basic Principles
- Safety and Pollution Control

## OPERATOR RESPONSIBILITIES

- Introduction
- Trends, Maintenance, and Emergencies
- Communication

- Plant Production and Safety

## PIPING AND AUXILIARIES

- Basic Components and Functions
- System Components and Operation

## PLANT SCIENCE

- Basic Principles
- Forces and Machines
- Solids and Liquids
- Gases and Flowing Liquids
- Heat

- Heat Transfer

- Fluid Systems

- Process Dynamics and

- Measurement

- Basic Electrical Principles

- Basic Electrical Circuits

## POWER PLANT

- Power and Energy

- Steam Cycle

- Power Generation

- Condensate and Feedwater Systems



## PROCESS SAMPLING

- Obtaining Samples
- Testing Samples

## PUMPS

- Basic Types and Operation
- Performance and Inspection
- Reciprocating Positive Displacement

### Types

- Rotary Positive Displacement Types
- Fundamentals of Centrifugal Types
- Operation of Centrifugal Types

## TROUBLESHOOTING

- Basic Concepts
- Process Examples

## TURBINES

- Steam Flow
- Bearings and Operation

## VALVES

- Basic Types and Operation - 1
- Introduction to Actuators
- Electric and Hydraulic Actuators

## WATER TREATMENT

- Water for Plant Systems - 1
- Water for Plant Systems 2
- Wastewater - 1
- Wastewater - 2

## **SAFETY TRAINING PROGRAM**

- Confined Space Entry
- Hazard Communication
- Material Safety Data Sheets
- Warning Signs and Labels
- Lockout/Tagout
- Fall Protection
- Respirator Fit Testing
- Personal Protection Equipment
- Back Safety
- Fire Safety
- Classes of Fires and Extinguishers
- Electrical Safety

- Safe Forklift Operation
- Forklift Safety Checks
- Bloodborne Pathogens
- HAZWOPER Introduction
- HAZWOPER: First Responder - Awareness Level
- Ergonomics
- Laboratory Safety
- Safety Orientation
- Hearing Conservation
- Fitness for Duty

## **APPENDIX 3-2**

### **CLASSROOM TRAINING**

## Classroom Training

<b>Course</b>	<b>Hours</b>
<b>Turbines, Valves, and Heat Exchangers</b> Turbine theory, Valve types and uses, Heat exchanger theory.	4
<b>Basic Steam Cycle</b> Describes the steam cycle and the (plant specific) equipment associated with each phase.	4
<b>Basic Electricity –Theory</b> Theory of electricity, AC Motors, and DC Motors	8
<b>Boiler/Combustor (Plant Specific)</b> Boiler design, Combustor design, Forced circulating system, Combustion air system, Air pollution control system, and combustion theory.	6
<b>Fuel Handling/Ash Handling Systems (Plant Specific)</b> One-line drawings with component descriptions and functions.	2
<b>Turbine Generator (Plant Specific)</b> Turbine design, reduction gear design, generator design, and support systems, electro/hydraulic controls, Tri-Sen TS310 control system and generator protection devices.	4
<b>Electrical Distribution System (Plant Specific)</b> One-line drawings with component descriptions and functions.	2
<b>Air Cooled Condenser, Condensate System</b> One-line drawings with component descriptions and functions.	2
<b>Feedwater System (Plant Specific)</b> One-line drawings with component descriptions and functions.	2
<b>Boilerwater/Feedwater Chemistry, Wastewater Treatment</b> (Plant Specific) One-line drawings with component descriptions and functions.	8
<b>Maintenance</b> Predictive and corrective maintenance, Preventive Maintenance, work orders and maintenance scheduling (MP-2).	4
<b>O &amp; M Manual and EMS Manual Review</b> Review the <u>Operations and Maintenance Manual</u> . Review the <u>Environmental Management System Manual</u> .	8
<b>Total Hours</b>	86

**APPENDIX 3-3**

**QUALIFICATIONS CHECKLISTS**

## QUALIFICATIONS CHECKLIST FOR OPERATORS

Name \_\_\_\_\_  
 Date \_\_\_\_\_

### Laborer Qualification

Item	Date	Supv.	
1.	_____	_____	Describe the Safety features associated with the Tenant Street Sweeper.
2.	_____	_____	Demonstrate the Pre-Operation checks and the Safe Operation of the Tenant Street Sweeper.
3.	_____	_____	Describe the Safety features associated with the Fork Truck.
4.	_____	_____	Demonstrate the Pre-Operation checks and the Safe Operation of the Fork Truck.
5.	_____	_____	Demonstrate knowledge of the Control of Hazardous Energy (Lockout/Tagout – LOTO) Program.
6.	_____	_____	Demonstrate knowledge of the Confined Space Entry Program.
7.	_____	_____	Discuss the procedures for performing Fire Watch duties.
8.	_____	_____	Discuss the Safety Procedures associated with performing heavy lifting operations using chain falls, slings, and hoist properly.
9.	_____	_____	Discuss all housekeeping and janitorial duties.
10.	_____	_____	Discuss all grounds maintenance duties.
11.	_____	_____	Describe the proper lifting methods to use during the use of the Turbine Crane and the In-house Crane.
12.	_____	_____	Demonstrate the Safe operation of the Turbine Crane and the In-house Crane.
13.	_____	_____	Demonstrate the safe operation of the Capacity trailer jockey.
14.	_____	_____	Demonstrate the safe operation of the Ottawa yard horse.
15.	_____	_____	Describe the appropriate PPE Associated with Tipping Floor Operations.

## AUXILIARY OPERATOR ASH AISLE QUALIFICATION CHECKLIST

Name \_\_\_\_\_

Date \_\_\_\_\_

Item	Date	Supv.	Description
1.	_____	_____	Review a detailed schematic of the Ash Processing system, including the Flyash system. Include identifying names, locations of local control panels and main power disconnects.
2.	_____	_____	Review the locations of all emergency stops and what equipment they effect.
3.	_____	_____	Review in detail the main vibratory drive system its major components and how they work.
4.	_____	_____	Review all lockout procedures associated with all ash systems.
5.	_____	_____	Review what is checked on the PM for the Ash Isle loader.
6.	_____	_____	Review MSDS for quick lime and the PPE needed for handling it.
7.	_____	_____	Review the startup and shutdown procedures for all ash handling equipment.
8.	_____	_____	Demonstrate the safe and proper way to clean the Grizzly Conveyor.
9.	_____	_____	Demonstrate the safe and proper operation of the Capacity Yard Tractor.
10.	_____	_____	Demonstrate the safe and proper way of raking down and staging an Ash Trailer.
11.	_____	_____	Demonstrate the safe and proper way of removing metal and filling the metal roll off boxes with the ash isle front-end loader.
12.	_____	_____	Demonstrate the safe and proper way of unloading the dump hoppers into ash trailers.
13.	_____	_____	Review the lubrication requirements of all ash system mobile equipment.

## AUXILIARY OPERATOR CRANE QUALIFICATION CHECKLIST

Name \_\_\_\_\_ Date \_\_\_\_\_

Item	Date	Supv.	Description
1.	_____	_____	Review the operation of the P&H crane. Include full discussion of bridge controls, holding and closing controls, etc. Motorizes (HP+RPM)FPM.
2.	_____	_____	Review the technique and importance of "fluffing" and mixing the MSW prior to putting it into the hopper.
3.	_____	_____	Review the importance of greasing the grapple. Describe, in detail, the procedure for greasing the grapple including positioning, pre-cautions, frequency, and amount. How many grease points?
4.	_____	_____	Review how the amount and content of the MSW routinely changes daily.
5.	_____	_____	Review the responsibilities of the crane operator regarding pit management. How do these responsibilities change on a daily basis?
6.	_____	_____	Review why it is undesirable to burn large amounts of plastic at one time. How would you handle a large load of plastics?
7.	_____	_____	Review all fire fighting equipment available in the crane pulpit and crane deck area.
8.	_____	_____	Discuss what your actions would be in the event of a pit fire.
9.	_____	_____	Discuss what your actions would be in the event of an active fire in the hopper.
10.	_____	_____	Describe the importance of maintaining communication with Control Room at all times.
11.	_____	_____	Review items that are undesirable to have in the pit and how you would deal with them, including safety precautions.
12.	_____	_____	Review, in detail, Covanta's Loto procedure. What items must be tagged out on the crane to insure it is properly Loto'd? Describe the importance of the hold-off systems.

Item	Date	Supv.	Description
13.	_____	_____	Describe how you would know if you had a "bridge" in the hopper. What would your actions be?
14.	_____	_____	Review, in detail, the importance of an accurate watch exchange. What would be covered in this exchange?
15.	_____	_____	Review safety concerns relative to activities associated around the hopper, on the crane bridge, etc. What safety equipment is available for the above use?
16.	_____	_____	Describe equipment the crane operator has with him at all times.
17.	_____	_____	Review the crane operator's housekeeping responsibilities.
18.	_____	_____	Review the crane operator's responsibilities during a blackout. What kind of conditions can you expect on the crane deck and pulpit?
19.	_____	_____	Review the precautions and actions taken by the crane operator during one unit operation as related to the off-line unit.
20.	_____	_____	Review material, if burned, could increase our stack emissions of sulfur dioxide?
21.	_____	_____	How often is preventative maintenance (PM) performed on the crane? What does the crane PM include?
22.	_____	_____	Describe in detail, how to perform a pit estimate?
23.	_____	_____	Provide an accurate line drawing of the Fire Protection System.
24.	_____	_____	F.D. Fan Intake? Importance of having it cleaned every shift?



## AUXILIARY OPERATOR TIPPING FLOOR QUALIFICATION CHECKLIST

Name \_\_\_\_\_

Date \_\_\_\_\_

Item	Date	Supv.	
1.	_____	_____	Demonstrate a "routine MSW Truck Inspection.
2.	_____	_____	Describe a "Suspicious" load.
3.	_____	_____	What constitutes "Unacceptable" Waste?
4.	_____	_____	What is a proper PPE for Tipping Floor Operations?
5.	_____	_____	Why must the Tipping Floor be clean and Ash Free prior to daily deliveries?
6.	_____	_____	Perform Tipping Floor Loader Daily P.M.
7.	_____	_____	What safety features are installed on the Tipping Floor Loader?
8.	_____	_____	Who must be contacted in the event a load of unacceptable waste is identified?
9.	_____	_____	Why is it important to remove large metal objects from the waste stream?
10.	_____	_____	Explain why it is unacceptable to push MSW on top of the Crane Grapple.
11.	_____	_____	Discuss some of the major hazards of working on the Tipping Floor.
12.	_____	_____	Define the term "Red Bag".
13.	_____	_____	Demonstrate the ability to efficiently perform Tipping Floor Operations.
14.	_____	_____	What is the Company's policy on "Pit Scavenging"?

## EQUIPMENT OPERATOR QUALIFICATION CHECKLIST

Item	Date	Supv.	System/Required Knowledge
<b>Instrument Air/Plant Air</b>			
1.	_____	_____	Draw a detailed diagram of the plant air system, including all valves, pressures, temperatures and equipment associated with the system.
2.	_____	_____	What is an air compressor? What type do we have? How does it operate?
3.	_____	_____	What is the normal air pressure? When will the stand-by air compressor start-up? How does this occur?
4.	_____	_____	What is the normal air outlet temperature?
5.	_____	_____	Why do we have an instrument air dryer?
6.	_____	_____	What is the resin inside the instrument air dryer? How does it work?
7.	_____	_____	Why do we have a pre-dryer filter and a post-dryer filter? Is it possible to regenerate the resin? If so, how?
<b>Bearing Cooling Water</b>			
8.	_____	_____	Draw a system sketch; explain all components including temperature and pressure.
9.	_____	_____	Why do we utilize DI water, not city water for make-up?
10.	_____	_____	What is Evapco inlet/outlet temperature? What is maximum temperature allowable? What equipment would be critical at higher temperature?
11.	_____	_____	What equipment is utilizing BCW? Why must BCW flow be established prior to start-up of equipment?
12.	_____	_____	How many fans does Evapco have? Describe operating logic of spray water pump and fans.
13.	_____	_____	Why are tests performed on BCW system and Evapco system? Describe purpose, not detailed steps to testing.
14.	_____	_____	How do you know if BCW is flowing to each piece of equipment?

## Process Water/City Water/Fire Protection System

Item	Date	Supv.	
15.	_____	_____	Draw a detailed sketch of back-flow preventers and city water service to fire system, city water supplies, including portable water service.
16.	_____	_____	What is a back-flow preventor?
17.	_____	_____	What is post indicator? What position are they locked in? Why?
18.	_____	_____	Why, and where are fire hose and sprinkler stations located?

### Condensate System

19.	_____	_____	Draw a diagram of condensate receiver tank, including all supply and discharge lines.
20.	_____	_____	Why do we have condensate pump, describe its purpose and normal operating pressures?
21.	_____	_____	For the condensate pump, how would you calculate the minimum discharge pressure required to allow condensate to flow to the DA?
22.	_____	_____	What is the DA? How does it work? Draw a sketch, including all internal components and explain its operation (water and steam side).
23.	_____	_____	What is normal operating temperature and pressure of the DA? How are these maintained? What will occur if the temperatures/pressures decrease or increase?
24.	_____	_____	Why is the DA vented to atmosphere? How is it controlled and what is the normal flow expected from the vent?
25.	_____	_____	How is level maintained in the DA? Is the valve an air to open or air to close valve? How do you know?
26.	_____	_____	Why do we sample the feedwater within the DA, what do we test for? How often?

Item	Date	Supv.
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27.	_____	_____	Draw a sketch of the ACC's and all components associated with the system except the SJAE and hogger.
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28.	_____	_____	What is the significance of a leaking flange associated with the ACC condensate tank? How will you notice a flange leak?
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### BFW

29.	_____	_____	Explain problems experienced with BFW pumps, especially low load operating or one unit operation.
-----	-------	-------	---

30.	_____	_____	Why must we have a recirculating line back to the DA?
-----	-------	-------	---

31.	_____	_____	Discuss the steps to placing a BFW pump in operation. (Motor Driven Only)
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32.	_____	_____	Draw a sketch of the BFW system from the DA discharge to each piece of equipment, including pressures and temperatures.
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### Forced Circulation System

33.	_____	_____	Draw, in detail, a sketch of the forced circulation system. Explain all components, list pressures, temperatures, etc.
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34.	_____	_____	Describe the purpose of the forced circulating pump.
-----	-------	-------	--

35.	_____	_____	Explain why the suction line is supplied from the mud drum, while the discharge returns to the steam drum.
-----	-------	-------	--

36.	_____	_____	Explain the theoretical percentage of saturated steam generation via the forced circulation system.
-----	-------	-------	---

37.	_____	_____	Explain why seal water must always be supplied to the rotary joint.
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38.	_____	_____	Explain the steps to tightening packing associated with the rotary joint.
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39.	_____	_____	Review in detail the steps to placing a forced circulating pump in-service (motor driven and turbine driven units).
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## Boiler and Steam Drum Details Combustor/Boiler Flow

Item	Date	Supv.	
40.	_____	_____	Draw a detailed cross-sectional diagram of the boiler.
41.	_____	_____	Explain in detail the purpose of each component, include temperature and pressure associated with each. Both flue gas side and steam/water side.
42.	_____	_____	What is a safety valve? What are the set pressure the steam drum safety valves and superheater safety valves?
43.	_____	_____	Explain why the superheater safety is set at a lower pressure than the steam drum safety.
44.	_____	_____	What is a radiant wall downcomer? Why is it important for maintaining optimum radiant wall flows?
45.	_____	_____	What is natural boiler circulation? What is forced boiler circulation? Explain how each applies to the boiler.
46.	_____	_____	What is meant by "steam attemperation"? Discuss how this is maintained in the boiler. Draw a sketch of the steam attempering valve.
47.	_____	_____	Explain the purpose of a steam drum and superheater vent during start-up, shutdown or operating problems when would you open or close each?
48.	_____	_____	Explain what you would monitor during a normal walkdown of the boiler and all relative components.
49.	_____	_____	What is saturated steam? What is superheater steam? Explain the difference and major concerns associated with each.
50.	_____	_____	What is normal air preheater inlet and economizer outlet pressure drop?
51.	_____	_____	What is normal air preheater inlet/outlet temperature?
52.	_____	_____	What is economizer inlet water temperature vs. theoretical outlet water temperature? How will this compare to economizer inlet flue gas temperature vs. economizer outlet flue gas temperature?

## Main Steam

Item	Date	Supv.	
53.	_____	_____	Draw a detail sketch of the main steam line from non-return valve to turbine T & T valve and list all auxiliary supplies.
54.	_____	_____	Explain detailed steps to warming up a main steam line.
55.	_____	_____	List each auxiliary steam supply and its respective pressures/temperatures.
56.	_____	_____	What is 420 Station? Why is it utilized? Explain the operation of the pressure control valve (PCV) and temperature control valve (TCV). Why must each operate properly to insure optimum operation?
57.	_____	_____	What is 440 station? Why is it utilized? Explain the operation of both the pressure control valves and temperature control valves.

### Blowdown System (Continuous & Intermittent)

58.	_____	_____	Draw a detailed sketch of the continuous blowdown and intermittent blowdown system, including all components.
59.	_____	_____	Explain, in detail, the purpose of the continuous blowdown and intermittent blowdown systems.
60.	_____	_____	Explain, in detail, the boiler controls you are looking to maintain with the continuous blowdown and intermittent blowdown system.

### Turbine Generator Skid

Answer in detail the purpose of each component associated with the turbine generator skid, when requested draw a detailed sketch.

61.	_____	_____	Lube oil pumps, AC & DC, including operating pressure, flow and sequence of operation.
62.	_____	_____	T & T valve including purpose and operation specifics.
63.	_____	_____	Sealing steam control, valve, pressure and flows.

Item	Date	Supv.	
64.	_____	_____	Lube oil accumulate, including pressure and operation details.
65.	_____	_____	Explain a detail walkdown associated with the turbine generator. Why must this be performed every 2 hours?
66.	_____	_____	Explain all emergency trips associated with the turbine generator. What is the Equipment Operator's responsibility associated with turbine generator trips?
67.	_____	_____	What is the gland seal exhauster? Explain its purpose and operating pressures.
68.	_____	_____	What is a turbine control valve, how do they operate? How many control valves does our turbine have? Explain how their operating sequence will increase steam flow.
69.	_____	_____	How many stages does our turbine have? What is the steam pressure/comp. Drop across unit?
70.	_____	_____	Is the generator air cooled or water-cooled? How do you know?
71.	_____	_____	Why do we have a turbine generator turning gear? When will it operate after a turbine generator trip? How long must it be in operation after a shutdown or before a start-up? Why?

#### **Air Cooled Condenser**

72.	_____	_____	Draw a sketch of the ACC system.
73.	_____	_____	Draw the Steam Jet Air Ejector/Hogger system in detail.
74.	_____	_____	What is meant by an "intercondenser" and an "after condenser" as it applies to the SJAE?
75.	_____	_____	Explain the principles of operation associated with the SJAE and hogger.
76.	_____	_____	Explain the steps to placing in-service and removing from service the SJAE, and hogger.
77.	_____	_____	What is the dephlegmator section as it applies to the ACC system, explain its overall purpose as it applies to the system.

Item	Date	Supv.
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78.	_____	_____	What is meant by a rupture discharge? Why is it utilized in the ACC system?
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### Hydraulics

79.	_____	_____	Draw a detailed sketch of the hydraulic system, including all equipment, pressures, and temperatures.
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80.	_____	_____	Why do we utilize an accumulator in the hydraulic system? At what pressure does it operate?
-----	-------	-------	---

81.	_____	_____	What equipment does the hydraulic skid supply? Explain in detail each piece of equipment, its theory of operation, and operating pressures and temperatures.
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82.	_____	_____	What is the purpose of a "limit switch" as it applies to the hydraulic rams?
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83.	_____	_____	Draw a sketch of the city water system including main fire line valves.
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84.	_____	_____	Explain the location of each fire hose and sprinkler throughout the Facility. Why have the locations been selected?
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85.	_____	_____	Why do we utilize a check valve in the fire protection system?
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### Waste Water Treatment

86.	_____	_____	Draw a sketch of the WWT system, including all valves and equipment associated with the system.
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87.	_____	_____	Explain the flow path of water through the WWT system, and why we would make changes to the normal flow path (i.e., pumping to sewer, or sludge).
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88.	_____	_____	Why do we use Ph meters in the WWT system?
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89.	_____	_____	Why do we maintain a level in the WWT system and what could happen if the level went high or low, what can cause the level changes?
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## **Baghouse/Lime**

<b>Item</b>	<b>Date</b>	<b>Supv.</b>
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90.	_____	_____	Explain how a baghouse works, normal cleaning and cleaning cycles. Including why there are different cleaning cycles.
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91.	_____	_____	How do pressure drops affect operation? Explain the methods used to correct them.
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## **Fans**

92.	_____	_____	Review why we have ID, FD, Sec. Air, ACC fans, and how to inspect and reset the fans.
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## **Plant Equipment**

93.	_____	_____	What is the vital equipment within the plant, why and in which order do we start-up this equipment.
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## **Electrical Distribution**

94.	_____	_____	Review the plant buss and the normal flow path, including breaker numbers and major equipment.
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95.	_____	_____	Explain how to reset, power down/up a breaker.
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96.	_____	_____	Explain the differences between an LP, DP, and DC panels, and the equipment we would normally find in them.
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## CONTROL ROOM OPERATOR QUALIFICATION CHECKLIST

Name \_\_\_\_\_

Date \_\_\_\_\_

Item	Date	Supv.	Description
1.	_____	_____	Describe the overall responsibilities of the Control Room Operator. Relate the job with the interaction/interface with other Operators, Shift Supervisors and Maintenance Personnel.
2.	_____	_____	Describe in detail, an expected shift turnover.
3.	_____	_____	Why is it important for the Control Room Operator to maintain accurate log books and data sheets?
4.	_____	_____	Why must they be signed off each shift?
5.	_____	_____	How long is the company obligated by NYSDEC to keep these logs?
6.	_____	_____	What is Opacity? What is our permit Limit?
7.	_____	_____	How would you as a Control Room Operator, respond to an indication of Opacity?
8.	_____	_____	What is CO, what causes it, and what is our permit limit?
9.	_____	_____	What is SO <sub>2</sub> ? What materials when burned, creates high SO <sub>2</sub> emissions?
10.	_____	_____	What is our permit limit for SO <sub>2</sub> emissions?
11.	_____	_____	What factors on the CEMS determines on-line/off line boiler status?
12.	_____	_____	Describe the effects on the ACC during one unit operation in sub-freezing temperatures. What is the corrective action for this condition?
13.	_____	_____	Is there an automatic mode to correct this condition?
14.	_____	_____	What is design "Burst" pressure of the ACC Rupture Disk?
15.	_____	_____	What causes a vacuum on the ACC during normal operation? Explain.
16.	_____	_____	What is the purpose of the Air Ejectors?

Item	Date	Supv.	Description
17.	_____	_____	What is the purpose of the Gland Seal Air Ejector?
18.	_____	_____	Describe the steam requirements that must be met prior to "Rolling" the Turbine Generator?
19.	_____	_____	What is the minimum Turbine Exhaust Duct Velocity? Explain.
20.	_____	_____	What is the 8 <sup>th</sup> Stage Limit Alarm for on the Turbine Generator? Give details.
21.	_____	_____	As a Control Room Operator, what is the first thing to do prior to starting the Turbine Generator? Discuss the safety features.
22.	_____	_____	Discuss a "Normal Operation" of the Turbine Generator>
23.	_____	_____	Discuss a "Cold Start-up" of the Turbine Generator.
24.	_____	_____	Discuss a "Hot Start-up" of the Turbine Generator.
25.	_____	_____	What is the purpose of the D. C. Battery System?
26.	_____	_____	What does it supply power to?
27.	_____	_____	Describe the steps to control MSW incineration utilizing Rotary Combustor speed and ram speed. Describe how changes in these variables can alter combustion.
28.	_____	_____	Discuss the indications of a heavy bed profile.
29.	_____	_____	Discuss the indications of a light bed profile.
30.	_____	_____	Discuss the indications of wet fuel.
31.	_____	_____	What is the purpose of Secondary Air?
32.	_____	_____	How does it affect Boiler Combustion?
33.	_____	_____	How can the CRO verify that the Superheater Vent is open?
34.	_____	_____	What is "Shrink and Swell" as it applies to steam drum level? Explain.

Item	Date	Supv.	Description
35.	_____	_____	How does the "Muffler Dump Valve" work to maintain system pressure?
36.	_____	_____	What's the purpose of the D.A. Vacuum Breaker and why would it open?
37.	_____	_____	During one unit operation, you notice your R.C. temp increases to 1200 degrees+.02 is rising, your Boiler Temp. begins to fall along with steam flow. How would you respond to ensure no loss of Turbine Generator?
38.	_____	_____	What level in the steam drum will trip the F D Fan?
39.	_____	_____	What is the first equipment to be started following a blackout?
40.	_____	_____	Why is the I D Fan a larger capacity than the FD Fan?
41.	_____	_____	Name the three controlling factors of the Three Elements Feedwater Control Systems.
42.	_____	_____	How would you as a CRO recognize an Economizer leak?
43.	_____	_____	Describe what drives the rams , "A","B", and "C" Zone Air Dampers.
44.	_____	_____	At what point should the CRO notify the Shift Supervisor of a CO problem?
45.	_____	_____	What is the CRO's function on the Emergency Response Team?
46.	_____	_____	What is the primary purpose of maintaining a balanced draft on the boilers?
47.	_____	_____	Demonstrate Cold Plant Start-up.
48.	_____	_____	Demonstrate the ability to place the Turbine Generator in service.
49.	_____	_____	Make a one line drawing of a drop of water through the basic steam cycle.
50.	_____	_____	Draw the Turbine Generator Lube/Control Oil System.

## **APPENDIX 3-4**

### **EMERGENCY OPERATIONS PROCEDURES**

MONTENAY DUTCHESS LLC  
EMERGENCY PROCEDURE  
LOSS OF THE EVAPCO IN THE BEARING COOLING WATER SYSTEM

PROCEDURE BCW-EO-EM-01

REVISION

Approved by: J. McCarthy

1. EMERGENCY PROCEDURE

1. Place the washdown hose for 84-6 into the BCW storage tank and turn on water.
2. Open fill station bypass 100%.
3. Connect a 1 ½ " fire hose to bleed valve connection located on supply line going to the hogger house and run the hose to the clarifier tank. Bleed water to waste water system, adjusting the bleed rate to maintain BCW tank level and cooling water temperature.
4. Place the hogger jet in service for the ACC condenser and secure the air ejectors.
5. Monitor the BCW flow to the electric boiler feed pumps.
6. Monitor the Turbine Lube Oil temperature.
7. Monitor the BCW tank outlet temperature.
8. Monitor the temperature of all plant equipment.
9. Monitor the temperature of all plant equipment.
10. Prepare for an emergency shutdown, should the temperature of any equipment exceed 150° F. (BF pumps, FC pumps, T/G lube oil cooler, gland exhaust condenser, sample coolers and charging chutes).

SHUT DOWN CLOSED COOLING WATER SYSTEM

Final shut down would include shutting down individual equipment until the last piece of equipment to be shut down is the closed cooling water pumps. Draining of the system (although not usually necessary) is done by opening the drain on the BCW storage tank.

MONTENAY DUTCHESS LLC  
EMERGENCY OPERATING PROCEDURE  
VACUUM LOSS DUE TO AIR EJECTOR MALFUNCTION

PROCEDURE: EO-EO-10  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

This guideline was prepared to assist the operations staff in reducing or limiting down time from the plant in the event that there is a loss of vacuum on the turbine and AC condenser due to an air ejector malfunction.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In the event that the Ac condenser and turbine begin to lose vacuum because of an air ejector problem, the outside operator must immediately put the hogging jet in service. Use the following procedure:

1. Open vent line to atmosphere.
2. Open the steam supply to the Hogger.
3. Open the vapor valve
4. Valve out the operating air ejectors.
5. Monitor the vacuum to ensure that the vacuum is rising or at least stabilizing.  
NOTE: The hogging jet will not be able to raise the vacuum to more than 20 to 21 INHG.
6. Check the following areas for possible cause of loss:
  - 6.1 Gland seal steam pressure low?
  - 6.2 Loss on condensate flow through air ejector condenser?
  - 6.3 Leaky sight level glass?
  - 6.4 Fouled air ejector nozzles or low/high steam pressure to air ejectors?
  - 6.5 ACC cooling fan failure?
  - 6.6 Fouled ACC?
7. Maintain vacuum with the hogging jet until vacuum problem can be repaired and placed back in service.

M:\Operating Procedures\O&M Manual Procedures\EO-EO-10.doc

MONTENAY DUTCHESS LLC  
EMERGENCY OPERATING PROCEDURE  
LOSS OF I.D. FAN

PROCEDURE: EO-EO-11  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On the loss of I.D. Fan the following conditions will be evident immediately:

1. Smoke will escape at boiler combustor seal and feechute combustor seal;
2. F.D. fan will trip;
3. Fire in Combuster will die;
4. Combustor will start to overload.

IMMEDIATE ACTION:

1. Clear I.D. alarm
2. Restart I.D. Fan
3. If fan will not restart, check M.C.C, then reset.
4. Ensure F.D. is down, close all zone dampers.
5. Check main power breaker.
6. Check I.D. fan damper.
7. Check fan and motor for noise, vibration, and temperature.
8. Re-start

LONG TERM ACTION:

1. Have I&C electrician run checks.
2. Check motor and fan for vibration, temperature, and oil/grease.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
EMERGENCY OPERATING PROCEDURE  
VACUUM LOSS DUE TO AIR EJECTOR MALFUNCTION

PROCEDURE: EO-EO-10

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This guideline was prepared to assist the operations staff in reducing or limiting down time from the plant in the event that there is a loss of vacuum on the turbine and AC condenser due to an air ejector malfunction.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In the event that the Ac condenser and turbine begin to lose vacuum because of an air ejector problem, the outside operator must immediately put the hogging jet in service. Use the following procedure:

1. Open vent line to atmosphere.
2. Open the steam supply to the Hogger.
3. Open the vapor valve
4. Valve out the operating air ejectors.
5. Monitor the vacuum to ensure that the vacuum is rising or at least stabilizing.  
NOTE: The hogging jet will not be able to raise the vacuum to more than 20 to 21 INHG.
6. Check the following areas for possible cause of loss:
  - 6.1 Gland seal steam pressure low?
  - 6.2 Loss on condensate flow through air ejector condenser?
  - 6.3 Leaky sight level glass?
  - 6.4 Fouled air ejector nozzles or low/high steam pressure to air ejectors?
  - 6.5 ACC cooling fan failure?
  - 6.6 Fouled ACC?
7. Maintain vacuum with the hogging jet until vacuum problem can be repaired and placed back in service.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
EMERGENCY OPERATING PROCEDURE  
LOSS OF I.D. FAN

PROCEDURE: EO-EO-11  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On the loss of I.D. Fan the following conditions will be evident immediately:

1. Smoke will escape at boiler combustor seal and feed chute combustor seal;
2. F.D. fan will trip;
3. Fire in Combuster will die;
4. Combustor will start to overload.

IMMEDIATE ACTION:

1. Clear I.D. alarm
2. Restart I.D. Fan
3. If fan will not restart, check M.C.C, then reset.
4. Ensure F.D. is down, close all zone dampers.
5. Check main power breaker.
6. Check I.D. fan damper.
7. Check fan and motor for noise, vibration, and temperature.
8. Re-start

LONG TERM ACTION:

1. Have I&C electrician run checks.
2. Check motor and fan for vibration, temperature, and oil/grease.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF FORCED DRAFT FAN

PROCEDURE: EO-EO-12  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of F.D. Fan the following conditions will be evident immediately.

1. Total air flow will be reduced in all combustor zones.
2. Fire will die down.
3. Drum pressure and level will decrease.
4. S.H. Steam press and flows will decrease.

Immediate action:

1. Raise drum level to normal level.
2. Restart I.D. if necessary.
3. Restart F.D. Fan.
4. Check main breaker.

Long Term Action:

1. Check for high fan, temperature, and vibration.
2. Have I&C electrician run diagnostics on circuits.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF BOILER FEED PUMPS

PROCEDURE: EO-EO-13  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On the Loss of the Boiler feed pumps the following conditions will be evident immediately:

1. Loss of feed water flow and pressure.
2. Steam drum indicates "OFF normal"
3. Low drum level
4. Forced draft fan trip

Immediate Action:

1. Start Boiler feed Pump.
2. Check to make sure one pump is not running in reverse.
3. Bring drum level back to normal drum level.
4. If boiler feed water flow cannot be reestablished within two minutes begin emergency shut down of the plant.
5. Begin emergency procedure FW-EO-01, "Shutdown Procedure for Loss of the Boiler Feed System.

Long Term Action:

1. Call maintenance to determine why the pump will not perform properly.
2. Ensure that steam driven pumps are operational.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF FORCED CIRCULATION PUMP

PROCEDURE: EO-EO-14  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of the Forced Circulation Pump the following conditions will be evident immediately:

1. High combustor discharge water temperature
2. No D.P. across suction and discharge gauge
3. Low combustor water flow alarm
4. Noise from combustor flashing steam
5. No F.C. pump rotation, although the motor may still be running.

Immediate action:

1. Start back-up, Steam Driven Forced Circulation Pump.
2. Check MCC for breaker tripped if electric.
3. Begin emergency shut down procedure for loss of forced circulation flow.

Long Term Action:

1. Have failed F.C. pump repaired as soon as possible.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF RAMS

PROCEDURE: EO-EO-15  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of Rams the following conditions will become evident immediately:

1. Fire will start to die moderately fast
2. Hydraulic system failure alarm
3. Fuel bed will decline
4. Fire will move to lower end of combustor
5. Steam flow will decline
6. Zone 1 temperature will increase slowly then drop

Immediate Action:

1. Check boiler limits
2. Check hydraulic oil reservoir level
3. Ensure ram hydraulic motor is running
4. Start standby hydraulic pump
5. Start ram hydraulic pump
6. Check hydraulic pressure to rams (1500-1800 PSIG)
7. Check limit switches on rams
8. Attempt to run rams by hand from local jog switch
9. Begin emergency shut down procedure HY-EO-06, "Loss of Ram Package".

Long Term Action:

1. If pump runs but rams don't move, trouble shoot amplifiers and QLC Cards.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF HYDRAULIC PACKAGE

PROCEDURE: EO-EO-16

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of the Hydraulic package the following will be evident immediately:

1. Combustor will stop rotating
2. Hydraulic Pump failure alarm will appear
3. Hydraulic System Failure alarm will appear
4. Rams will stop
5. Fire will begin to die quickly

Immediate Action:

1. Close OFF all zone dampers
2. Check level in Hydraulic Oil Tank. (Add oil if needed).
3. Start back-up oil pump motor
4. Shut down F.D. fan
5. Check hydraulic pump breakers in MCC Room
6. Check operability of low sump level trip
7. Begin emergency shut down procedure for loss of hydraulic ram package

Long Term Action:

1. Meg Motor for possible shorting
2. Repair pump

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF COMBUSTOR ROTATION

PROCEDURE: EO-EO-17  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

This procedure is to assist in the recovery of a unit when the combustor stops rotating.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of combustor rotation the following conditions will be evident immediately:

1. Combustor will not be rotating
2. Fire will die down
3. Fuel will pile up in Zone A
4. Split fires may appear
5. Fire will run into Zone A

Immediate action:

1. Stop rams
2. Check Hydraulic package
3. Check Hydraulic Combustor drive and chain
4. Change filters on Hydraulic Systems
5. Begin emergency shut down procedure for loss of combustor rotation

Long Term Action:

1. Call maintenance and I&C Technician for help in checking out system



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF CONDENSATE PUMP

PROCEDURE: EO-EO-18  
REVISION 1 05.20.02  
Approved: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of Condensate pump the following conditions will become evident immediately:

1. Low or no condensate flow to D.A.
2. Low D.A. level
3. Demineralizer failure alarm

Immediate Action:

1. Start back-up Condensate Pump
2. Check MCC Room breaker for breaker trip
3. Check motor and pump for failure
4. Connect and open city water emergency chute line (when installed).

Long Term Action:

1. Call electrician for further testing

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF AIR COMPRESSION

PROCEDURE: EO-EO-19  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of the air compressor the following conditions will become evident immediately:

1. "Instrument Air System failure Alarm will become evident immediately
2. Drop of air pressure in pant
3. Fail open valves will open
4. Dampers and other air-operated valves will not operate properly

Immediate Action:

1. Start back-up air compressor
2. Determine why compressor tripped out
3. Check breakers in MCC Room
4. Check compressor oil levels
5. Make pre-arrangements for a rental portable air compressor.

Long Term Action:

1. Call electrician or maintenance for further testing

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF BEARING COOLING WATER PUMP

PROCEDURE: EO-EO-20  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of the Bearing Cooling water System the following conditions will become evident immediately:

1. Forced circulating pumps' bearings and seals will start to overheat.
2. Turbine oil temperature will start to rise sharply.

Immediate Action:

1. Start back-up pump.
2. Open city water tie to discharge problems.
3. Check MCC room for breaker problems.
4. Call electrician immediately if no B.C.W. pumps can be started.
5. Monitor sump level for overflow of B.C.W.

Long Term Action:

1. Call Electrician or I&C to troubleshoot electrical problem.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF TURBINE

PROCEDURE: EO-EO-21  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure*

3. PROCEDURES

On Loss of the turbine the following conditions will be evident immediately:

1. Turbine trip alarm will activate.
2. PCV 420 and PVC 440 will open 100%.
3. TCV 430 and TCV 440 will open 100%.
4. Safety valves on 180# and 600# Header will lift.
5. Auxiliary oil pump will start.

Immediate Action:

1. Check main oil pressure.
2. Check lube oil filter differential.
3. Check vibration and temperature of all bearings.
4. Check flags on all trip relays.
5. Check main breakers for trips.
6. If cause is known and can be resolved, reset Turbine and bring back on line.
7. Reset all flags.
8. If Turbine has damage, put unit in a safe mode as soon as possible. If bearings seem to be the problem and the unit is vibrating or a major oil leak has developed, do not put on turning gear. Bring to a complete stop.
9. Notify the proper personnel for assistance as soon as the plant conditions will allow.

Long Term Action:

1. All action must start immediately and continue until unit is back in operation.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF GENERATOR

PROCEDURE: EO-EO-22  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On the loss of the generator the following conditions will become evident immediately:

1. Generator breaker will open.
2. PCV 420 and PCV 440 will open 100%.
3. TCV 430 and TCV 440 will open 100%.
4. Turbine will return to speed control and reduce speed to 6973 R.P.M. and hold.
5. MW output will be ZERO.

Immediate Action:

1. Trip exciter breaker
2. Check flags on all trip relays and record findings.
3. There are many reasons why the Generator will trip. The most common reason so far has been reverse power. This is usually caused by low steam flow and pressure.
4. Correct the problem and re-sync the unit back to the grid.
5. If the Generator has a major problem and advise them of action.

Long Term Action:

1. There should be No long-term action. All action to correct problem with the Generator should start immediately and continue until the unit is back on line and producing electricity again.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
BAGHOUSE FIRE

PROCEDURE: EO-EO-24  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

The procedure was written to provide a specific course of action to be taken in the event that the Dutchess Facility should experience a fire in the Zurn baghouse.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

Indications of a baghouse fire are as follows

1. High opacity caused by the loss of bags.
2. Sharp increases in stack temperature.
3. Excessive heat in the hoppers.
4. Buckling of the steel plates that form the baghouse.

By the time that it is evident that there is an actual baghouse fire, the bags will most assuredly be destroyed. Protection must apply to the existing structure and other chambers.

To provide protection, the operations staff must perform the following:

1. Trip the F.D. fan.
2. Close all dampers.
3. Close the F.D. fan manual damper.
4. Trip the I.D. fan.
5. Close the I.D. fan manual damper.
6. Place all BUT ONE of the chambers in the "maintenance" position on the affected baghouse control panel.

NOTE: One chamber to be left in service to provide boiler protection.

7. Trip the reverse air fan on the affected baghouse.
8. Close off all manual inlet dampers.

9. If safety permits, close off all slide gates but one.
10. Stop all screw conveyors.
11. Notify the Arlington Fire Department at (845)471-1313
12. Notify the Plant Manager, the Plant Engineer and the Operations Supervisor.

In the event of a fire in the baghouse, the operating crew must stop all air from entering the baghouse. The effect of smothering the fire must be carried out swiftly and effectively.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
REFUSE RECEIVING AND STORAGE FIRE

PROCEDURE: EO-AO-30

REVISION 1 05.20.02

Approved by:

1. PURPOSE

The procedure was written to provide a specific course of action to be taken in the event that the Dutchess Facility should experience a fire in the Refuse Receiving Are.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

Indications of a refuse fire are as follows

1. Visible flames coming from refuse .
2. vapors that do not dissipate.
3. Smell of burning material.

To provide protection, the operations staff must perform the following:

1. Announce immediately on the public address system that there is a refuse fire and its location.
2. If the fire is in the refuse pit and in reach of the refuse crane pick up burning refuse and place it immediately into the closed feed hopper.
3. Make sure all burning material is in the feed hopper.
4. Contact the control room and tell him what hopper the burning refuse is in.
5. Using the fire canons wet down area of the fire.
6. Continue feeding refuse from area of fire.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF RAMS

PROCEDURE: EO-EO-15

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

*This section is used for describing why there is a procedure.*

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

On loss of Rams the following conditions will become evident immediately:

1. Fire will start to die moderately fast
2. Hydraulic system failure alarm
3. Fuel bed will decline
4. Fire will move to lower end of combustor
5. Steam flow will decline
6. Zone 1 temperature will increase slowly then drop

Immediate Action:

1. Check boiler limits
2. Check hydraulic oil reservoir level
3. Ensure ram hydraulic motor is running
4. Start standby hydraulic pump
5. Start ram hydraulic pump
6. Check hydraulic pressure to rams (1500-1800 PSIG)
7. Check limit switches on rams
8. Attempt to run rams by hand from local jog switch
9. Begin emergency shut down procedure HY-EO-06, "Loss of Ram Package".

Long Term Action:

1. If pump runs but rams don't move, trouble shoot amplifiers and QLC Cards.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF THE FORCED DRAFT FAN

PROCEDURE: CA-OP-18

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

If it is anticipated that the fan will be down for an extended amount of time because of a mechanical or electrical failure, the operations staff should implement the following procedures:

1. Stop feeding the hopper.
2. Push remaining fuel into the combustor
3. Raise the draft set point to -5 INWC.
4. Open all the zone dampers 100%.
5. Open the FD fan damper 100%.
6. Slow the combustor speed to less than 25%.
7. Monitor the ash drag for potential problems.
8. When the boiler is no longer taking water, isolate the feed water regulator.
9. Stop the water flow to the rotary joint.
10. Reference operations procedure BL-OP-13, One Boiler Operation.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
SHUTDOWN PROCEDURE FOR LOSS OF THE BOILER FEED SYSTEM

PROCEDURE: FW-EO-01

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

The following guideline was prepared to assist the operating staff in the safe and orderly shut down of the plant in the event that the boiler feed water flow is lost and cannot immediately be restored. This guideline provides for maximum protection of the boilers, the combustors, the turbine/generator set and the boiler feed water pumps.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In the event that the boiler feed water flow is lost, the operator must perform the following:

1. Check the DA tank to ensure that there is sufficient level.
2. If there is a sufficient level, attempt to start another boiler feedwater pump.
3. If the DA is less than  $\frac{1}{4}$  full, attempt to fill the DA using the demineralized water to the DA tank by-pass valve.
4. If the feed water flow or the feed water level in the tank cannot be restored immediately, the operator must perform the following:
  - 4.1 Trip the FD fans. NOTE: Based on a trip point of 20% drum level, the FD fans may have tripped themselves.
  - 4.2 Ensure that the FD fans have tripped.
  - 4.3 Close all of the zone air flow control dampers.
  - 4.4 Trip the turbine. This will ensure that less water level is lost from the drum.
  - 4.5 When the drum pressure reaches 500 PSIG, secure the non-return valves.
  - 4.6 Secure the feed water regulating valves or the hammer valves on the feed water lines.
  - 4.7 Secure the continuous blow downs.
  - 4.8 Upon return of the feed water system, refer to: "Operating Procedure For Plant Start Up After An Emergency Shutdown".

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
EMERGENCY OPERATING PROCEDURE  
SHUTDOWN PROCEDURE FOR LOSS OF COMBUSTOR FORCED CIRCULATION WATER

PROCEDURE: RC-EO-02

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This emergency shutdown procedure was written to provide a safe and effective shutdown of boiler and combustor in the event that forced circulation to the combustor is lost. The loss of forced circulation to the combustor can be one of the most damaging problems to the equipment in the plant.

The loss of combustor circulating water is evident by zero flow on the boiler Moore flow indicator or by a loss of the pump (audible alarm and visual on panel FC low flow).

WARNING: The O'Connor rotary combustor must never be operated at less than 750 GPM circ water flow. Loss of circulation will cause damage to the rotary combustor and its associated equipment.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

If loss of circulating water is experienced the operator should immediately start the standby or steam driven forced circulation pump. If the standby forced circulation pump cannot be started within 2 minutes or if the electric forced circ. Pump cannot be restarted within 5 minutes, the operator must perform the following immediately:

1. Stop the FD fan on the effected boiler.
2. Stop the rams.
3. Raise the combustor speed to greater than 50 % to get the fuel out quickly.
4. Close the FD fan damper.
5. Close all overfire and underfire air dampers.
6. Monitor drum level.
7. Monitor the ash drag for potential bridging or fire problems.
8. Monitor the plant and equipment.
9. Determine the reason for the forced circulating water loss.
10. Restart the FD fan after all the fire is out to help cool down the unit.

On the loss of forced circulating water flow, it is imperative that the fire is smothered as quickly as possible and the heat generated from the fuel are reduced as quickly as possible.

**APPENDIX 3-5**

**CASUALTY PROCEDURES**

## CASUALTY PROCEDURES

The following Casualty Procedures are provided in this section:

CA-OP-18	Loss of the Forced Draft Fan
CA-OP-19	Loss of Induced Draft Fan
CD-EO-08	Loss of Condensate Forwarding Pump Flow
CM-EO-03	Loss of Control System
OP-AB-20	High Opacity
PD-EO-07	Loss of Station Service

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF THE FORCED DRAFT FAN

PROCEDURE: CA-OP-18  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

If it is anticipated that the fan will be down for an extended amount of time because of a mechanical or electrical failure, the operations staff should implement the following procedures:

1. Stop feeding the hopper.
2. Push remaining fuel into the combustor
3. Raise the draft set point to -5 INWC.
4. Open all the zone dampers 100%.
5. Open the FD fan damper 100%.
6. Slow the combustor speed to less than 25%.
7. Monitor the ash drag for potential problems.
8. When the boiler is no longer taking water, isolate the feed water regulator.
9. Stop the water flow to the rotary joint.
10. Reference operations procedure BL-OP-13, One Boiler Operation.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
CASUALTY PROCEDURE  
LOSS OF INDUCED DRAFT FAN

PROCEDURE: CA-OP-19  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

The following procedure was prepared in order to provide for maximum plant and equipment protection on the event that the I.D. fan is lost and cannot be restarted due to a mechanical or electrical failure.

NOTE: This procedure is not to be used for the loss of the I.D. fan due to the switch gear overheating.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In the event that the I.D. fan is lost during normal operations because of a mechanical or electrical failure, the operator must perform the following:

1. Stop feeding the hopper.
2. Open the ID fan damper 100%.
3. Push all the fuel in the hopper into the combustor.
4. Open the FD fan manual damper 100%.
5. Open all zone dampers 50-75%.
6. Slow the combustor rotation speed to approx. 20%.
7. Allow the natural draft to draw air into the combustor to help burn off the fuel bed.
8. When the boiler is no longer taking water, isolate the feed water regulator valve.
9. Monitor the ash drag to help prevent the buildup of unburned material. This unburned material is a potential problem.
10. Monitor the boiler back pressure. If the boiler begins to back pressure, close down the FD damper until the back pressure is no longer a problem.
11. Secure the water to the rotary joint.
12. Monitor the plant for fires that may be caused by the back pressure on the boiler.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
CASUALTY PROCEDURE  
LOSS OF CONDENSATE FORWARDING PUMP FLOW

PROCEDURE: CD-EO-08

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

The purpose of this guideline is to ensure the protection of the turbine and the air cooled condenser in the event that a loss of the condensate forwarding pump flow is experienced.

The loss of condensate flow will be evident in a loss of flow to the dewatering heater, a higher than normal air cooled ACC condensate temperature of the DA and a loss of vacuum.

2. REFERENCES

This section is used for references any other text, documents or procedures used in developing this procedure.

3. PROCEDURES

When the plant experiences a loss of the condensate pump, the operator should immediately require a visual verification that there is a sufficient level in the condenser receiver. If the level is sufficient and the flow cannot be restored, the operator must perform the following

1. Start the standby ACC condensate transfer pump.
2. If the vacuum is not re-established in 5 minutes, back the steam flow on the boilers down to 35 klb/hr.
3. Ensure that the receiver condensate level is sufficient.
4. Ensure that the hogging jet is not in service.
5. Isolate the air ejectors.
6. Monitor the condensate return temperature (<155°F).
7. Attempt to re-establish condensate flow once the vacuum reaches 0 INHCA by performing the following:
  - 7.1 Close the discharge valve on one pump.
  - 7.2 Monitor the pressure.
  - 7.3 When the pressure reaches 100 PSIG, open the discharge valve to re-establish the condensate flow to the DA level.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF CONTROL SYSTEM

PROCEDURE: CM-EO-03  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

This guideline was designed to assist and provide guidelines to the operations staff at Montenay Dutchess LLC. In the event that a total loss of control system is experienced.

2. REFERENCES

3. PROCEDURES

The first indication of a loss of the control system will be evidenced by the mode indicator automatic controllers showing blank face plates rather than their normal lighted displays. These indications will alert the operator to the fact that the controllers are no longer broadcasting to the PLC's or the control console.

1. The operator should go to the MCC room and check breaker #2 in distribution panel 1DP.
2. If the control system is not back in operation within 2 minutes, the following actions must be taken immediately:
  - 2.1 Notify the Shift Supervisor
  - 2.2 Someone must go to the MCC Room and perform the following:
    - 2.2.1 Trip the FD Fans.
    - 2.2.2 Trip the ram control breakers (Breaker #11 DP1, Breaker #11 DP2).
    - 2.2.3 Stand by the MCC Room to trip the Boiler feed Pump Breakers if necessary.
  - 2.3 Concurrent with step 2.2. send someone to the DA level. Check the level. If the level is less than  $\frac{1}{4}$  of the sight glass, trip the boiler feed pumps at their respective breakers. Crack open the by-pass around the demin to the DA heater (level control valve).
  - 2.4 Monitor the boiler drum level (Yarway Level indicator) and pressure from the Control room.
  - 2.5 Ensure that the forced circulation pump is running. If not, open the block valves and start the steam driven forced circulation pump.
  - 2.6 When the generator reaches 1.5 MW, trip the turbine from the control room.
  - 2.7 Secure the block valves at the feed water regulator and control the drum level with the feed water bypass valve.
  - 2.8 Check the D.A. level and adjust manually.
  - 2.9 Break vacuum with the air cooled condenser vacuum breaker valve.
  - 2.10 Ensure that the turbine coasts down and goes on turning gear.
  - 2.11 When the boilers have cooled down, and are no longer taking water, trip the boiler feed pumps.
  - 2.12 Trip the condensate pumps from the MCC Room.
  - 2.13 Monitor all plant property and equipment.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
HIGH OPACITY

PROCEDURE: OP-AB-20  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In the event of high opacity, (high opacity is defined as any opacity that exceeds 10 % for more than six minutes) the operations staff must determine why the opacity is high and make the necessary adjustments to bring it back under control. The following must be implemented immediately.

1. The Shift Supervisor and equipment operator must go to the bag house control center immediately.
2. Put the first chamber in operate.
  - 2.1. Check with the control room to determine if the opacity has dropped to normal.
  - 2.2. Place the chamber in operate.
3. Put the second chamber in maintenance
  - 3.1. Check with the control room to determine if the opacity has returned to normal.
  - 3.2. Place the chamber back in operation.
4. Repeat steps 2, 2.1 and 2.2. on each chamber until the faulty chamber is identified.
5. Once the faulty chamber has been identified:
  - 5.1. Place the chamber switch in maintenance.
  - 5.2. Close off the chain damper (at the chamber inlet) on the effected chamber.
  - 5.3. Call maintenance for repairs.
6. Complete a facility Incident report and an Agency Notification report.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LOSS OF STATION SERVICE

PROCEDURE: PD-EO-07

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This procedure was developed to provide a safe and efficient method of shutting the plant down under a condition referred to as a Loss of Station Service. Loss of Station Service is defined as not having an electrical tie to Central Hudson. There are various causes for this condition, but the end result will be the same: either

- (1) A loss of Station Service WITHOUT Loss of the Turbine Generator or
- (2) Loss of Station Service AND Loss of the Turbine Generator.

1. Loss of Station service without loss of the turbine generator:

- 1.1. Five abnormal conditions will immediately become apparent to the operator. (These events will happen simultaneously).
  - 1.1.1. The header and drum pressure will increase sharply.
  - 1.1.2. Safety valves will open to relieve the pressure in the header.
  - 1.1.3. Megawatt output will decline rapidly to approximately 1.2 MW.
  - 1.1.4. The breaker on the Turbine Generator control board, marked 1CB1. Utility Breaker Switch will open.
  - 1.1.5. PCV 440, PCV 420, TCV 420 and TCV 440 will go 100% open.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

- 1.2 The operating crew must implement the following procedure immediately.
  - 1.2.1 Open the steam block valves to start the steam-driven forced procedure immediately.
  - 1.2.2 Start the steam-driven boiler feedwater pumps.
  - 1.2.3 Shut down the electric forced circulation pumps.
  - 1.2.4 Shut down the electric boiler feedwater pumps.
  - 1.2.5 Reduce the steam flow set point to 20 klb/hr per boiler.
  - 1.2.6 Call Central Hudson to inform them that the Station Service has been lost.
  - 1.2.7 Notify facility manager, the Plant Engineer, and the Operations Manager that Station Service has been lost.
  - 1.2.8 Monitor all plant equipment.
  - 1.2.9 Stand-by for Central Hudson to restore Station Service.

- 1.2.10 Remain in alert for a turbine Generator trip. Should the turbine generator trip, immediately implement Section II of this procedure.
2. Loss of station service AND loss of the turbine generator: The Shift Supervisor will direct the Implementation of the following procedure.
- 2.1 Send someone to the DA level sight glass to monitor the level and to control the drum levels.
- 2.2 Ensure that the DA is greater than  $\frac{1}{4}$  full.  
NOTE: If the DA level is less than  $\frac{1}{4}$  full, DO NOT start the steam-driven boiler feed pump. If less than  $\frac{1}{4}$  full, stop the electric boiler feed pumps until OA level can be re-established.
- 2.3 Isolate the feedwater regulating valves. Control with the by-passes.
- 2.4 Simultaneous with the previous step, send someone to the pump room (bottom floor). On the way down, open the BCW shot line to provide shot line to pumps, etc. Attach the city water hose to the steam drive boiler feed pumps.
- 2.5 Start the steam-driven forced circulation pumps.  
NOTE: Start the steam-driven forced circulation pumps using the block valves.
- 2.6 When the DA level has been verified to be greater than  $\frac{1}{4}$  full, start the steam-driven boiler feedwater pump.
- 2.7 Ensure that the turbine DC lube oil pump is running.
- 2.8 Monitor the Yarway drum level indicators in the control Room through the viewing windows. When the drum level reaches 60 %, trip the steam-driven boiler feedwater pump.
- 2.9 Notify Central Hudson that the plant has lost Station Service.
- WARNING: DO NOT ATTEMPT TO CLOSE THE INCOMING POWER BREAKER 1CB1 UNTIL CENTRAL HUDSON GIVES A CLEARANCE TO RE\_ESTABLISH INCOMING POWER.
- 2.10 Trip all breakers in the MCC Room.
- 2.11 Notify the Facility Manager; plant Engineer and the Operations Manager.
- 2.12 When Station Service is restored, refer to procedure OP-OP-01, "Plant Startup after an Emergency Shut-down".

LOG IN THE LOG BOOK THE TIME CLEARANCE IS GIVEN AND WHO GAVE THE CLEARANCE.

**APPENDIX 3-6**  
**OPERATIONS PROCEDURES**

## OPERATIONS PROCEDURES

The following operations procedures are provided in this section:

### STARTUP/SHUTDOWN PROCEDURE

TG-OP-01	Elliott Turbine/Ideal Generator Startup, Operations, Shutdown, and Emergency Shutdown
RC-OP-26	O'Connor Rotary Combustor/Deltak Boiler
TG-OP-26	Stopping the Motorization of the Generator
BL-OP-21	Shutdown Procedure for Leaking Boiler Tube
OP-OP-01	Plant Startup after an Emergency Shutdown
BL-OP-13	One Boiler Operation

### OPERATING PROCEDURE

AA-LA-01	Laboratory Analysis of Ash for Percent Moisture
AA-LA-02	Ash Sampling for Volatile Analysis
AA-LA-03	Laboratory Analysis of Ash for Percent Volatiles
AA-LA-04	Semi-annual Ash Testing
AA-OP-24	Ash Handling System
BA-GL-02	Bottom Ash Reduction
BC-OP-25	Bearing Cooling Water System
BL-EO-04	Loss of Bearing Cooling Water
BL-OP-09	Furnace Temperature/Flame Limitations
BI-OP-10	Boiler/Combustor Hydrostatic Test Procedure
BG-OP-26	Zurn Baghouse Operating Procedure
CA-GL-09	Combustion Control
CS-GL-12	Control System Logic and Changes
DW-OP-15	<del>Demineralizer Operation</del> OBSOLETE
FD-GL-06	Wet MSW Operating Guidelines
FD-OP-16	Houseload Reduction Procedure
OP-OP-08	Recovering of Steam Flow after Experiencing Low Bed Profile
RC-GL-01	Controlling the Bed Profile in the O'Connor Rotary Combustor
RC-GL-10	Carbon Monoxide Control in the O'Connor Rotary Combustor
TG-OP-20	Operation of Turbine Generator Trip Switch
TG-OP-22	Reardon Pressure Control Valve
WW-GL-08	Sump Management Routine

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
ELLIOT TURBINE / IDEAL GENERATOR START-UP, OPERATION, SHUTDOWN, AND  
EMERGENCY SHUTDOWN

PROCEDURE: TG-OP-01  
REVISION 1 05.20.02  
Approved by: R. Chance

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ CBO \_\_\_\_\_ SS \_\_\_\_\_

1. PURPOSE

This procedure was written to ensure the safe and efficient start-up- operation, shutdown, and emergency shutdown of the turbine/generator.

2. REFERENCES

*Elliott Turbine Generator Manual*

3. PROCEDURES

As with any procedure, all sound and safe engineering practices are in effect.

1. Pre Start-up
2. Start-up from Cold
3. Normal Operations
4. Shut Down
5. Emergency Shut Down

As with any procedure, all sound and safe engineering practices are in effect.

**WARNING:** Whenever the turbine exhaust pressure is sub-atmospheric (vacuum), the gland seal steam should be on. The rotor must have sealing steam and be rotating any time the jets are on.

**NOTE:** Steps 2.21 through 2.38 will be used for a "HOT" startup.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
ELLIOT TURBINE / IDEAL GENERATOR START-UP, OPERATION, SHUTDOWN, and  
EMERGENCY SHUTDOWN

Page 2 (continued)

1. Pre Start-Up

The following activities must take place before any attempt to start the turbine is made.

1.1 Test the DC oil pump.

- 1.1.1 Ensure that the DC pump breaker is closed
- 1.1.2 Shutdown the auxiliary oil pump
- 1.1.3 Ensure that the DC pump starts
- 1.1.4 Ensure that the DC pump discharge pressure is greater than 10 PSIG.

**Record Pressure** \_\_\_\_\_

- 1.1.5 Pull breaker on DC lube oil pump (shutdown the DC lube oil pump)
  - 1.1.6 Start the AC oil pump
  - 1.1.7 Ensure that the AC auxiliary oil pump restarts
  - 1.1.8 Ensure that the main oil pressure is greater than 80 PSIG
  - 1.1.9 Reset the DC pump breaker
  - 1.1.10 Ensure that the battery charger is functioning (125 volt, 5 amp)
- 1.2 Put turbine/generator on turning gear for a minimum of TWO hours.
- 1.3 Ensure lube oil temperature is above 70°F. **Record temperature** \_\_\_\_\_
- 1.4 Ensure that the total steam flow from the boiler(s) is greater than 40 KLB/hr.
- 1.5 Drain all condensate from the turbine inlet steam header using the header drains.
- 1.6 Drain all condensate from the MPS steam line (extraction line)  
CAUTION: Do not open the steam header drains more than three turns. Leave open until turbine/generator is running.
- 1.7 Ensure that the liquid mover has a 40# steam supply.
- 1.8 Test fire the liquid mover to prove its functional readiness.
- 1.9 Open the turbine casing drains.
- 1.10 Open the overseat and underseat drains three turns.
- 1.11 Check that block valve is open.
- 1.12 Ensure that all water and condensate is drained from the main steam line.
- 1.13 Ensure that the superheated steam temperature is above 525° F.
- 1.14 Ensure that the steam pressure from the boiler(s) is above 550 PSIG.
- 1.15 Ensure that turbine is on turbine gear.

2. Start-Up from Cold with Turbine/Generator on Turning Gear

**WARNING:** During the implementation of any part of section 2, should the Turbine / Generator set behave in any abnormal manner, that is, produce excessive vibrations, unusual noise, scraping sounds, abnormal pressures, etc., TRIP the turbine IMMEDIATELY.

2.1 Reset all relay flags, which are located in the MCC room, and record.

- 2.2 Reset breakers 86 and 86G if they are tripped.
- 2.3 Equipment Operator check lube oil system (pressure, flow, etc.) and reset T & T (trip and throttle) latch.
- 2.4 Equipment operator ensures that turbine is on turbine gear.
- 2.5 Put gland-sealing steam in service, 3-6 psig.
- 2.6 Put gland sealing steam exhaust system in service (1 Hg in.) Also ensure bearing cooling water flow to gland sealing steam condenser.
- 2.7 Ensure all drains and vacuum “breakers” valves are closed. Put hogger in service. Bring vacuum up to -24 Hg in.
- 2.8 Control board operator will then press the “start” button on TS-310.
- 2.9 The Equipment Operator will then open throttle valve 100%.
- 2.10 Equipment operator will open turbine casing drains 100%.
- 2.11 Listen for abnormal noises, oil flow, steam and oil pressures, and unusual vibrations.
- 2.12 Hold 200 rpm for 11 minutes.
- 2.13 Raise speed to 500 rpm.

NOTE: pressing F2 on the TS-310 does this. When set point reaches 500, press the up arrow on the TS 310. Run for five minutes.

- 2.14 Cut off overseat and underseat drains.
- 2.15 Check for abnormal noises, vibrations, and oil flow.
- 2.16 Raise the turbine speed to 1000 rpm.
- 2.17 Close the turbine casing drains.
- 2.18 Ensure (mech.) main oil pump is primed. Vent discharge line if needed.
- 2.19 Check for abnormal vibrations, temps and oil pressure and flow.
- 2.20 On direction from shift supervisor the operator will press F2 and ramp turbine to synch speed.  
NOTE: The following steps will be used for a “HOT” startup.  
NOTE: The turbine will ramp its speed up to 6973 rpm. Increases should be 7.3-rpm increase per second until synchronous speed is reached.
- 2.21 Put air ejectors in service and remove hogger from service.
- 2.22 Turn the auxiliary oil pump to the OFF position. Allow the pump to stop. Return the pump to the

Auto position.

- 2.23 Allow the turbine speed to stabilize at 6973 rpm.
- 2.24 Ensure that steam flow and pressure requirements are met.
- 2.25 Energize the exciter field breaker.
- 2.26 Switch the Generator breaker (located on the control board) to Generator. The yellow Synchronize light should come on.
- 2.27 Allow the turbine speed to stabilize.
- 2.28 Ensure that phase, frequency, and voltage are in range. All three phases should read 13.8 KV, Speed should be 6973/60 HZ.
- 2.29 Call Central Hudson at 452-1710. Inform them that you are ready to tie to the grid.
- 2.30 Press F1 on TS-310 to enable the synchronization relay.
- 2.31 Wait for generator to tie to the grid.  
  
NOTE: per previous procedure, if the tie has not been made in 10 minutes, trip the turbine, re-latch on the way down, try again.
- 2.32 When the generator ties to the grid, raise the speed of the turbine to achieve 1+ MW.
- 2.33 Press F1 to enable cascade.
- 2.34 Enter H.P. set point.
- 2.35 Raise or lower the set point of the extraction on the TS-310 until it reaches the pressure of the MPS header.
- 2.36 Press F2 to enable extraction.
- 2.37 Lower PCV 420 set point to 10 psig below MPS header pressure OMLY after extraction pressure On TS-310 is equal to or greater than medium pressure steam.
- 2.38 At this point onward, the turbine/generator needs only to be monitored and recorded unless a System fails or a problem is indicated.

### 3. Normal Operation

The turbine generator must be operating within the parameters listed below during normal operations. If the turbine or generator varies from these parameters, the problem must be resolved as quickly as possible to avoid damage to the turbine/generator set and/or extended downtime. With normal observations and monitoring, the turbine/generator should perform with very little adjustment as long as there is sufficient steam flow and temperature.

- 3.1 Turbine inlet pressure: 600psi.
- 3.2 Steam temperature to the turbine: 700° F.
- 3.3 Output (kilo volts: 13.8 KV.
- 3.4 Vars in auto- unity.
- 3.5 Frequency: 60 HZ
- 3.6 Oil Temperature: 110° - 130° F.
- 3.7 Gland seal steam: 3- 6 psi.
- 3.8 Turbine vacuum: 4 PSIA (approximately 26 inches Hg g).
- 3.9 Bearing cooling water: maximum 100° F.
- 3.10 Liquid mover steam supply: 40 PSIG.
- 3.11 Liquid mover control valves: 1 auto, 1 manual.
- 3.12 Extraction pressure set point: 180 PSIG
- 3.13 Turbine main oil pump: greater than 80 PSIG
- 3.14 Turbine auxiliary oil pump: down in auto mode
- 3.15 D.C. Lube oil: auto
- 3.16 Battery charger: 125 V, less than 5 amp
- 3.17 Oil filter differential: less than 25 PSIG
- 3.18 Normal operation mode: inlet pressure control
- 3.19 Normal operations pressure set point: 600 PSIG
- 3.20 Normal operations extraction set point: 180 PSIG

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
STARTUP / SHUTDOWN PROCEDURE  
O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER

PROCEDURE: RC-OP-26

REVISION 2 10.10.05

Approved by: R. Chance

Date: \_\_\_\_\_ Boiler: \_\_\_\_\_

Gas meter readings: Start; N \_\_\_\_\_ S \_\_\_\_\_ End; N \_\_\_\_\_ S \_\_\_\_\_

Total Gas Used \_\_\_\_\_ CCF

Burner start time \_\_\_\_\_ Burner end time \_\_\_\_\_

1. PURPOSE

This document was prepared to provide complete instructions for the start-up of the O'connor/Deltak unit. These instructions were also designed to provide maximum plant efficiency as maximum protection for plant equipment and personnel.

This document assumes a cold plant.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

*This section is used to describe the step to complete the procedure*  
STARTUP

1. Prior to any start-up, the following systems must be in operation:
  - 1.1 City water
  - 1.2 Closed loop cooling water system ( refer to BC-OP-XX,).
  - 1.3 Compressed air system
  - 1.4 All start-up valve line up must be established.
2. The following requirements must be satisfied before attempting start-up:
  - 2.1 Visually confirm that the deaerating heater level is one-half full.
  - 2.2 Ensure that the feedwater pumps are lined up and available for service.

- 2.3 Inspect the boiler and combustor for any abnormalities.
- 2.4 Open the drum vents 100%.
- 2.5 Open the Superheater vents 100%.

**WARNING:** Water with a temperature of less than 70° F should NOT be put into a steam drum at any time without first consulting the Deltak Instruction manual. Cold water may cause thermal stress cracks.

3. Start-up procedure:

- 3.1 Bring the drum level to zero inches by either blowing the boiler down if the level is high OR starting up a feedwater pump if the boiler drum level is low.
- 3.2 When the drum level is zero inches, start up the electric driven forced circulation pump.  
(Reference Byron Jackson Pump R.C. Manual, O'Connor Rotary Combustor Manual and Plant Start-up Procedure OP-OP-01).
- 3.3 Start the ram hydraulic package. (Reference O'Connor Rotary Combustor Manual).
- 3.4 Start the combustor rotation.
  - Rotate the speed control to 20%.
  - Visually verify combustion rotation.
- 3.5 Start the rams.
  - Press the ram "Double Stroke Key".
  - Raise the ram speed to 50%.
  - Visually verify that the rams are running.
  - Raise and lower the ram speed.
  - Visually verify that the ram speed increases and decreases on command.
  - When test is complete and satisfactory, stop the rams.
- 3.6 Start the ID fan.
  - Set the draft setpoint at -.2 INWC.
  - Place draft in auto.
  - Have the Equipment Operator visually verify water seal on the siftings conveyor and bottom ash drag.
  - Instruct crane operator to seal the charging chute with MSW
- 3.7 Start firing the boiler
  - Start FD fan
  - Purge boiler for 5 minutes.
  - Start Burner
  - Reduce FD fan output to 15%.
- 3.8 Compute hours to 400° F.
  - $(400^{\circ}\text{F} \text{ minus Combustor disc water temp}) = \text{degree rise until } 400^{\circ}\text{F}.$
  - $(\text{Degree rise until } 400^{\circ}\text{F is reached divided by } 100) = \text{hours to } 400^{\circ}\text{ F when maintaining } 100^{\circ}\text{ F per hour rise.}$
- 3.9 When the drum pressure reaches 25 psig close the drum vents.

WARNING: Do NOT close the superheater vents. Superheater temperature must not exceed 900°F. Control with ACC bypass or blow off line.

- 3.10 When the combustor discharge water temperature reaches 400°F:
- Start the rams.
  - Push fuel into the combustor.
  - Slow the combustor speed to approximately 15%.
  - Open rotary joint water TWO rounds.
- 3.11 Raise firing rate and combustor speed until pressure and temperature are 550-580 and 650-700°F respectively. Maintain steam flow at 30 klb/hour.
- 3.12 When the turbine comes on line:
- Close the superheater vents.
  - Raise steam flow setpoint to 45-55 klb/hour.
- 3.13 Place steam flow control in auto with a set-point of 52 klb/hour.
- 3.14 Place ram control in auto 10% to 30%.
- 3.15 Place Zone 1 OF, Zone 1 UF, Zone 2 OF and Zone 2 UF in auto.
- 3.16 Place Zone 3 OF and Zone 3 UF in auto set points 5.2 – 6.2 02 respectively.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
EMERGENCY SHUTDOWN PROCEDURE  
STOPPING THE MOTORIZATION OF THE GENERATOR

PROCEDURE: TG-OP-26

REVISION 1 05.20.02

Approved: R. Chance

1. PURPOSE

This procedure was developed to establish a safe and efficient method of stopping the motorization of the generator.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

1. The generator has protective devices such as the reverse current relay that should protect the machine in the event that zero power output is reached. However, should the D.C. current to the turbine generator control board be lost, the protective device for reverse current protection will not operate.
2. The indication of a reverse current will be evident in the fact that the generator output (MW) will be 0 and the generator breaker will remain closed. In the event that this occurs, the operator must do the following immediately:
  - 2.1 Trip the generator breaker.
  - 2.2 Ensure that the breaker is actually tripped.

NOTE: If the breaker will not trip the generator, trip the Central Hudson Power breaker on the turbine generator control board.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
STARTUP / SHUTDOWN PROCEDURE  
SHUTDOWN PROCEDURE FOR LEAKING BOILER TUBE

PROCEDURE BL-OP-21  
REVISION 1 01.12.92

1. PURPOSE

This document was prepared in order to assist the operations staff in the safe and orderly shut down of a boiler in the event that a boiler experiences a leaking tube.

The document is divided into 3 sections.

Section 1 describes the symptoms of a leaking tube.

Section 2 covers the shutdown of a boiler due to a leaking superheater tube.

Section 3 covers the shut down of a boiler due to a leak in the water wall section, the convection section, the screen tube section, or the generating section.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

1. A leaking tube may be evidenced by any or all of the following:

- 1.1 Excessive boiler feed water usage
- 1.2 Low drum level
- 1.3 Extreme and uncontrollable boiler back pressure
- 1.4 Loud noises caused by steam escaping
- 1.5 Wet ash in the air heater hopper or economizer hopper
- 1.6 Reduction of drum pressure
- 1.7 Reduction of steam flow
- 1.8 Water or steam escaping
- 1.9 A sudden increase in the superheated steam temperature

2. If the leak is in the superheater section and the operator is able to maintain a normal, or near normal, drum level (0.0 INWC to -3 INWC), the operations staff should perform the following:

- 2.1 Stop feeding the hoppers with cranes
- 2.2 Empty the charging chute

- 2.3 Burn out the fuel remaining in the combustor barrel.
  - 2.4 Stop the F.D. fan
  - 2.5 Open the zone dampers and F.D. fan dampers 100%.
  - 2.6 Open superheater vent at 20klbs/hr (or earlier)
  - 2.7 Raise the draft setpoint to  $-(.5)$  INWC.
  - 2.8 Open the inspection / manway doors on the section that does NOT have a leaking tube.
  - 2.9 Cool the boiler down
  - 2.10 Maintain the drum level at  $+(2)$  inwc, if possible.
  - 2.11 When the drum pressure reaches 25 to 50 psig, open the drum vents and superheater vents.
  - 2.12 Close and Lockout/Tagout high pressure block
  - 2.13 Close and Lockout/Tagout the nonreturn valve
  - 2.14 Secure the feed water regulator and Lockout/Tagout the isolation valves.
  - 2.15 Open the inspection door on the section that has the leaking tube
  - 2.16 Without putting your head inside the boiler, attempt to determine the location of the leak
  - 2.17 Close and Lockout/Tagout all blowdown valve
  - 2.18 Isolate and Lockout/ Tagout the sootblower supply line at the header
  - 2.19 Close the continuous blowdown valve
3. If the boiler is losing an excessive amount of water and the drum level CANNOT be maintained, this could indicate a leak in a section other than the superheater section. IN this event the operations staff should perform the following procedures:
- 3.1 Stop the F.D. fan
  - 3.2 Close off the F.D. fan dampers
  - 3.3 Close off all the zone dampers
  - 3.4 Stop the rams
  - 3.5 Stop feeding MSW
- NOTE: Should a hopper fire occur, start the rams and push all fuel that is in the hopper into the combustor.
- 3.6 Raise the draft setpoint to  $-(.5)$  INWC
  - 3.7 Carefully open the inspection doors
  - 3.8 Place superheater vent to auto when steam reaches 25 to 50 psig, open the drum vents
  - 3.9 When the drum pressure reaches 25 to 50 psig, open the drum vents
  - 3.10 Close and Lockout/Tagout the high pressure valve
  - 3.11 Close and Lockout/Tagout the nonreturn valve
  - 3.12 Close and Lockout/Tagout the soot blower steam supply valve
- NOTE: the soot blower steam supply valve.
- 3.13 Close and Lockout/Tagout all blowdown valves
  - 3.14 Close the continuous blowdown valve
  - 3.15 Start the rams
  - 3.16 Slowly push the fuel in the hopper into the combustor
  - 3.17 Using a slow combustor rotation, allow the unburned fuel to go through the combustor and into the ash drag
  - 3.18 Check the ash drag frequently for potential bridging and fire problems
  - 3.19 Implement the ONE-BOILER OPERATION procedure, BL-OP-13

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
STARTUP / SHUTDOWN PROCEDURE  
PLANT STARTUP AFTER AN EMERGENCY SHUTDOWN

PROCEDURE: OP-OP-01  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

This procedure was developed to assist the operations staff in the orderly and safe start-up of the plant after an emergency shut down while providing maximum protection for the plant and equipment.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

Many things must be kept in mind when the plant is started up after an emergency shutdown. These include such things as valve lineups that may be abnormal because of the need to shut down quickly, switch gear that may be racked out, set points that may need to be realigned, a 00 temperatures a 00 pressures that may need to be given special attention. The two special considerations that must be integrated into the start-up are the thermal shock from cold water entering the D.A. heater and the thermal shock caused by cold water entering the steam drum and the forced circulating system. These points are addressed as the following:

A. The Deareating Heater

Before start up is attempted, check. the D.A. level and temperature. Should the D.A. heater be less than 1/4 full; there is a possibility that, should the automatic valve be used to automatically fill the D. A. heater, the "cold" water could cause thermal stress and cracks in the tank. To prevent this from happening the following procedures should be followed:

NOTE: Do not close breaker 1CB1 until you receive clearance from Central Hudson.  
Clearance given and person giving clearance to close 1CB1.

B. Filling the steam Drum

1. Insure that the boiler feed water PUItJ is down.
2. Ensure that the feed water regulator valves are isolated.
3. Ensure that the feed water regulator bypasses are closed.

4. Ensure that the DA sight glass is greater than 1/2 full.
5. Start a boiler feed water pump
6. The operator should monitor the boiler feed water flow using controllers overview graphic.
7. Crack one of the feed water regulator by-pass valves open.
8. Adjust the flow to 40 GPM hour to the boiler.
9. Monitor the D.A. level.

NOTE: If the level in the deaerating heater is less than ¼ of the sight glass, secure filling the boilers. Return to section A.

10. When the drum levels are sufficient, return to a normal valve lineup and implement the normal start up procedure.

If the level in the deaerating

heater is less than 1/4 of the sight glass, secure filling the boilers. Return to Section A.

When the drum levels are sufficient, return to a normal valve lineup and implement the normal start up procedure.

1. Ensure that the boiler feed water regulator is isolated.
2. Ensure that the boiler feed PUI1J is down.
3. Ensure that the condensate pumps are down.
4. Ensure that the manual block valves at the DA level controller are closed.
5. Start up a condensate
6. Crack open the by-pass around the D.A. level control valve to begin filling the D.A. heater.
7. The operator must monitor the flow to the deaerating heater. Do not exceed 40 GPM flow to the deaerating heater. Control the level using the by-pass around the level control valve.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
STARTUP / SHUTDOWN PROCEDURE  
ONE BOILER OPERATION

PROCEDURE BL-OP-13

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This guideline was prepared to assist the operations staff in reducing the house electric load in the event that the plant is forced to operate in a one-boiler operating mode. Reducing the house load will provide a higher net output to the Central Hudson grid.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

At some time in the life of the plant, there will be a need to operate the facility using only one boiler and the turbine/generator.

During a boiler outage, whether the outage is planned or forced, it will become necessary to reduce the house load and perform certain procedures that are a part of the plant overall operating procedure.

The following steps should be performed, in this order, after the fuel has been burned out of the combustor barrel of the boiler that is to be taken out of service.

1. Shut down the F.D. fan on the boiler that has been taken out of service
2. Allow the boiler to come off line.
3. Change the power factor to manual. Adjust to unity using the AVR.
4. Ensure the MW output is greater than 2MW. If the MW output is less than 2, put the turbine in speed control.
5. Set the draft set point out  $-0.5$  INWC.
6. Monitor the combustor discharge water temperature.
7. Ensure that only one boiler feed water pump is running.
8. When the combustor water discharge temperature reaches  $190^{\circ}$  -  $200^{\circ}$  F:
  - 8.1 Shut down the combustor forced circulation pump.
  - 8.2 Shut down the ID fan
  - 8.3 Shut down the ram hydraulic package
  - 8.4 Allow the bag house to cycle for four hours.
  - 8.5 De-energize the bag house after four hours.
  - 8.6 If the unit is to be down for less than twelve hours, maintain a 5 psig steam blanket on the down boiler, using the steam crossover line.

NOTE: If the outage is expected to last more than twelve hours, prepare the boiler for chemical layup.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LABORATORY ANALYSIS OF ASH FOR PERCENT MOISTURE

PROCEDURE: AA-LA-01  
REVISION 2 August 7, 2006  
Approved by: R. Chance

1. PURPOSE

1. This procedure can be used for bottom ash, flyash or combined (truck) ash and is intended for in-house use only. Not for compliance determination.
2. Results are expressed as percent moisture by weight (H<sub>2</sub>O) on dry basis.

2. REFERENCES

ANSI/ASTM 2216-80 Laboratory Determination of Water (Moisture) Content of Soil, Rock and Soil-Aggregate Mixtures

3. PROCEDURES

Record lab test information on lab test form ASH SAMPLE LAB TESTING AND ANALYSIS FORM.

1. Vigorously mix the sample container and then place a 50-gram sample into a marked, weighed aluminum-weighing dish. Spread the sample evenly over the bottom of the container. This will aid the even and complete drying of the sample

**Note: It is very important to perform the weighing very carefully and accurately. A 1-gram error makes a big difference in the results!!**

2. Weigh the wet sample and record the weight.
3. Dry the sample in the oven at 120 degrees Celsius for 12 hours.
4. Weigh the dried sample and record the weight.
5. Calculate the percent moisture on wet basis as follows:

$$\frac{(\text{Wet Weight-Pan Weight}) - (\text{Dry Weight-Pan Weight}) \times 100}{(\text{Wet Weight-Pan Weight})}$$

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
ASH SAMPLING FOR VOLATILE ANALYSIS

PROCEDURE AA-LA-02

REVISION 5 06.08.04

Approved by: R. Chance

1. PURPOSE

The purpose of this procedure is to meet the requirements of 6 NYCRR Part 360-3.5(c) and DCRRA Solid Waste Permit stating that ash will be tested when; 1) once per calendar quarter 2) the MSW pit inventory is above 3,150 tons.

2. REFERENCES

6 NYCRR Part 360-3.5(c) & O & M Manual Section 9.4.3

3. PROTOCOL

Sampling will occur for three consecutive days per quarter. Should the plant be down when the sampling is to occur, the samples will be taken on the next subsequent day the plant begins operation. The eight samples will be composited into one analysis sample and one replicate.

The sampling will take place where the ash conveyor discharges to the ash truck. This is after ferrous removal system just prior to the ash leaving the plant. The ash sample is caught in a shovel directly from the ash conveyor belt. The shovel is wide enough to catch the ash from the full width of the belt.

**Immediately prior to starting any ash sampling, all combustion air dampers must be inspected for proper operation, all expansion joints inspected to verify integrity and t-grate air flow verified for proper setting of 500 CFM.**

**Make sure that all operations personnel are aware that ash sampling is taking place. Should upset conditions occur in the plant that would affect the quality of the ash being sample, the sampling should be stopped. Sampling should be rescheduled when plant conditions are back to normal conditions.**

4. PROCEDURES

1. Notify the Shift Supervisor and control room operator that you are about to start ash sampling.
2. Request the following information from the CRO each time you collect a sample and record on sample collection form:
  - a. Combustor speed
  - b. T-grate speed
  - c. T-grate air flow



- d. Clinker status
3. Put on proper safety equipment; hardhat, safety glasses and gloves.
4. Set up ladder or scaffolding to ash trailer.
5. Position collection container under ash conveyor discharge until sufficient ash is collected (~20lbs.) to fill container.
6. Take sample to processing area.
7. Weigh entire sample in the container and record weight after subtracting the weight of the container. Record weight on **Form 1 - Ash Sampling Raw Data form**.
8. Pour sample onto a 3/8" screen.
9. Sift the sample through the 3/8" screen. **(Note: Puncture resistant gloves must be worn while handling ash samples.)** Any material not passing through the screen will be processed in a mechanical crusher. If a mechanical crusher is not available then material will be subjected to three blows with a five lb. sledgehammer dropped from one foot above the material. If a piece does not break after three blows of a hammer, the solid material remaining will be removed and discarded.
10. Repeat sampling every 15 minutes over a two (2) hour period until a total of eight (8) samples have been collected, weighed and added to a composite container.
11. The 2-hour composite will then be mixed, using a 5.5 cu.ft cement mixer and then be coned and quartered into three, 3 lb. Samples.
12. Label and place samples in a container with a lid, label it and store it in a clean dry secure area. Subsequent composite samples will be stored in the same manner.  
Label containers as follows:  
The collection date mm/dd/yy, then a dash, then numbered sequentially 1, 2, and 3.  
06/15/06-1 is June 15, 2006 sample container one of three.
13. The sample collection will be repeated each day for 3 days, thus generating three sets of three, 3-lb, composite samples.
14. Take the container from each of the 3 days numbered –1 and mix well to create a composite sample that represents three days of waste processing. After mixing and returning to the three containers, write, "mixed" on each of the three containers.
15. Remove 50 grams from the container labeled as the first day's sample #1 "mixed" container and send to a laboratory (within three days), which has been determined by NYSDEC. Write the word "sample" on this container.
16. The plant will retain the replicate samples until the results have been accepted.
17. Results will be reported to the NYSDEC within 60 days after receipt of results.

## 5. LOCATIONS

Occasionally, we may need to collect additional ash samples in an attempt to determine why LOI results may be elevated. For these purposes, ash samples should be collected from the following locations.

1. Combined Ash – sample from location described above.
2. Bottom Ash Sample – stop the ash conditioner, collect bottom ash sample in same manner as above. Create one 3 lb sample instead of three.
3. Tipping Floor Sample – when an ash trailer is dumped on the tipping floor transfer station, mix well and collect one 5 gallon bucket of ash. Process ash and create one 3 lb sample jar
4. Flyash Sample – Collect sample from drop-off chute prior to ash landing on conveyor belt. Collect one 3 lb sample jar.

## Form 1 - Ash Sampling Raw Data Form

Monthly -- Quarterly -- Pit Inventory -- Special Test \_\_\_\_\_  
(Circle one)

Sample Date	Time	Wt. Of Box and Sample	Wt. of Box	Wt. Of Sample	Combu- stor Speed RPH		t-grate speed %		t-grate air flow scfm		Clinker status		Sampled By	Control Room Operator	Supervisor
					#1	#2	#1	#2	#1	#2	#1	#2			

Sample #      1                      2                      3

Wt of Composite Sample and Jar \_\_\_\_\_

Wt of Jar \_\_\_\_\_

Wt of Composite Sample \_\_\_\_\_

Sample ID Number \_\_\_\_\_

(I.e. monthdayyear-sample # 010102-01)

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
LABORATORY ANALYSIS OF ASH FOR PERCENT VOLATILES

PROCEDURE AA-LA-03  
REVISION 3 August 7, 2006  
Approved by: R. Chance

1. PURPOSE

- 1.1. This procedure can be used for bottom ash, flyash or combined (truck) ash and is intended for in-house use only. Not for compliance determination.
- 1.2. Results are expressed as percent volatile by weight on a dry sample basis.
- 1.3. Special care must be taken when handling samples for volatiles since we are looking for small percentage changes

2. REFERENCES

ASTM 2540-G Method for Determination of % Total Solids and % Volatile Solids

3. PROCEDURES

Record lab test information on lab test form ASH SAMPLE LAB TESTING AND ANALYSIS FORM.

**Note:** It is very important to perform the weighing very carefully and accurately. A 1-gram error makes a big difference in the results!!

- 3.1. Carefully weigh a marked ceramic crucible and log identification and weight.
- 3.2. Place 20 grams of dried ash that has been obtained from drying the sample (as per procedure AA-LA-01) into the crucible.
- 3.3. Carefully weigh sample plus crucible and log weight.
- 3.4. Place weighed sample in ceramic dish in furnace at 550 degrees C for 12 hours.
- 3.5. Remove and carefully measure the weight.
- 3.6. **NOTE:** Take special care in handling the hot container. Wear gloves and use tongs.
- 3.7. Calculate the percent volatile by weight as follows:

$$\frac{(\text{Dry Weight-Crucible weight}) - (\text{Final Weight-Crucible Weight}) \times 100}{(\text{Dry Weight-Crucible Weight})}$$

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
SEMI-ANNUAL ASH TESTING

PROCEDURE AA-LA-04

REVISION 1 05.23.02

Approved by: R. Chance

1. PURPOSE

The purpose of this procedure is to meet the requirements of Subdivision 360-3.5(c) and instructions from NYSDEC stating that ash will be tested semi-annually for toxicity characteristics.

2. REFERENCES

6 NYCRR Part 360-3.5(c) & O & M Manual Section 9.4.3

3. PROTOCOL

Two sets of eight (8) grab samples will be taken each day for five (5) days. The samples will be taken every 60 minutes over an 8-hour time period each of the five days. Should the plant be down when the sampling is to occur, the sample will be taken on the next day the plant is back to normal operation. If the plant is forced into an outage less than 48 hours, the sampling will be resumed with that (interrupted) day's sampling days sampling being repeated after the plant regains normal operation. The 8 grab samples gathered each period will be combined and reduced into a daily composite sample. The composite sample will be further reduced to three 3 lb samples. Remove @150 grams of ash sample #1 and delivered to a lab, which will analyze the sample for toxicity characteristics (see table below). The replicate samples will be saved at the plant until the test results are accepted.

The sampling will take place where the ash conveyor discharges into the ash trailer, after the ferrous conveyor system, and just prior to the ash leaving the plant. The ash sample is caught in a collection box directly from the conveyor belt.

Accordingly, the TCLP extract is now analyzed as shown below:

<u>Parameter</u>	<u>Preparation Method</u>	<u>Analytical Method</u>
Lead	3010	6010
Cadmium	3010	6010

Results are reported in mg/L.

#### 4. PROCEDURES

1. Notify the Shift Supervisor that you are about to start ash sampling and give an estimate of time involved.
2. Put on proper safety equipment; hardhat, safety glasses and gloves.
3. Set up ladder or scaffolding to ash trailer.
4. Position collection box under ash conveyor discharge until sufficient ash is collected (~20lbs.) to fill box.
5. Take sample to processing area.
6. Weigh entire sample in the container and record weight after subtracting the weight of the container. Record weight on Form 1 - Ash Sampling Raw Data form.
7. Pour sample onto a 3/8" screen.
8. Sift the sample through the 3/8" screen. Any material not passing through the screen will be processed in a mechanical crusher. If a mechanical crusher is not available then material will be subjected to three blows with a five lb. Sledgehammer dropped from one foot above the material. If a piece does not break after three blows of a hammer, the solid material remaining will be removed and discarded.
9. Repeat sampling every 60 minutes over an 8-hour period until a total of 8 samples have been collected, weighed and added to the composite container.
10. The 8-hour composite will then be mixed, using a 5.5 cu.ft. cement mixer and then be coned and quartered into three 3 lb. Samples.
11. Place samples in a container with a lid, label it and store it in a clean dry secure area. Subsequent composite samples will be stored in the same manner.
12. The sample collection will be repeated each day for 5 days, thus generating three sets of ten 3-lb, composite samples.
13. The plant will retain the replicate samples until the results have been accepted.
14. Results will be reported to the NYSDEC within 60 days after receipt of results.

## Form 1 - Ash Sampling Raw Data Form

Sample Date	Time	Wt. Of Box and Sample	Wt. of Box	Wt. Of Sample	Sampled By	Supervisor

Sample #                      1    2    3

Wt of Composite Sample and Jar \_\_\_\_\_

Wt of Jar \_\_\_\_\_

Wt of Composite Sample \_\_\_\_\_

Sample ID Number \_\_\_\_\_

(I.e. monthdayyear-sample # 010102-01)

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
ASH HANDLING SYSTEM

PROCEDURE AA-OP-24

REVISION II 3.12.02

Approved by: R. Chance

1. PURPOSE

The following is an overview of the ash handling system and an in-depth operating procedure for the system. Included is a system description and an interlock explanation, as well as the operating procedures for the start-up, operations, shutdown, truck move, re-start, emergency shut down, and care of the system.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

1. The ash system consists of seven pieces of equipment:

- Main vibratory conveyor
- Grizzly conveyor
- Spreader feeder
- Magnetic drum
- Bottom ash belt conveyor
- Ferrous conveyor
- Flyash belt conveyor

- 1.1 Main Vibratory Conveyor: Ash and metal from the combustor are fed to the main vibratory conveyor by the bottom ash drags. The ash and metal mixture falls down a chute to the main vibratory conveyor. The main vibratory conveyor then moves the material towards separation by means of a vibratory action. Times are set in an Allen Bradley PLC so that the vibratory conveyor will run 30 seconds, then shut down for 10 seconds, then restart a 30 second run, 10 second shut down cycle.

WARNING: This equipment may start up unexpectedly. Make sure that the lock out procedure is in place before working on this equipment.

- 1.2 Grizzly: The grizzly provides a large metal object separation process to the system. Any object more than 5" in diameter or width will not pass through the grizzly. Instead it will vibrate across the top of the grizzly and fall to the floor at the pushwall. All objects less than 10" in diameter or width falls to the spreader feeder.

- 1.3 Spreader Feeder: Material falling to the spreader feeder is conveyed down the spreader feeder by means of a vibrating action until the material reaches a point of final ferrous separation.
- 1.4 Magnetic Separator: As material moves down the spreader feeder, it passes within about 6" of a rotating electro magnet. Ferrous material (iron, steel, tin, etc.) is drawn from the ash by the magnet field of the drum. Rotation carries the ferrous materials over the top of the drum to a point where the magnetic field releases the material and allows it to fall to the ferrous conveyor. The remaining ash on the spreader feeder falls to the "S" conveyor.
- 1.5 Ferrous Conveyor: The material of the ferrous conveyor travels by vibrating action to a point at the end of the conveyor where it falls to the floor.
- 1.6 Bottom Ash Belt Conveyor: Ash, after the magnet has removed metal, falls to the bottom ash belt conveyor. The bottom ash belt conveyor is a rubber belt type device that conveys the ash upward to a discharge point at the end of the bottom ash belt conveyor where it is dropped to the fly ash belt conveyor.
- 1.7 Flyash Belt Conveyor: The flyash belt conveyor takes the ash from the bottom ash belt conveyor by means of a rubber belt the ash truck for disposal. Ash is removed from the site by a tractor-trailer. Metals are loaded using a front-end loader or similar piece of equipment. The metals are put into a dumpster and later taken off site to scrap metal yards.

2. Interlocks: The following interlocks are operational only in the automatic mode.

- 2.1 The fly ash belt conveyor must be running to allow the bottom ash belt conveyor to run.
- 2.2 The bottom ash belt conveyor must be running to allow the magnet separator to run.
- 2.3 The ferrous conveyor must be running to allow the magnetic separator to run.
- 2.4 The magnetic separator must be running to allow the spreader feeder to run.
- 2.5 The spreader feeder must be running to allow the main vibratory conveyor to run.
- 2.6 The rectifier must be energized to allow the magnetic drum to run.

NOTE: The bottom ash drags are only started after the entire system is in operation. This is covered in the STARTUP section of this procedure.

3. STARTUP

- 3.1 Ensure that all oil levels are adequate in all gearboxes.
- 3.2 Inspect the conveyor belts for wear, bridging, or any other abnormalities, especially at the belt scrapper locations.
- 3.3 Inspect the ferrous conveyor for any abnormalities such as broken springs, et cetera.
- 3.4 Inspect the magnetic separator for abnormalities such as wear marks.
- 3.5 Inspect the grizzly for cleanliness between the teeth.
- 3.6 Inspect the grizzly for signs of wear, broken springs, etc.
- 3.7 Inspect the spreader feeder for broken or worn springs, etc.
- 3.8 Inspect the main vibrating conveyor for wear, cleanliness, broken springs, etc.
- 3.9 Report any abnormalities to the Shift Supervisor, maintenance supervisor.
- 3.10 Locate the ash system breakers in the main MCC room and the control panel breaker located in the baghouse MCC room.



### 3.11 Ensure that the breakers are closed.

**WARNING:** The system should only be operated in the manual mode for emergency situations. All protective devices are bypassed when the system is in the manual mode. In manual, any high vibrations, excessive movements, spring breakage, chain or belt binding will not be sensed by the system or reacted to by the control system, and equipment damage may result. Individual components may be run in manual and protection is still provided for all equipment in automatic.

### 3.16 At the control panel:

- a. Press master start.
- b. Place the Flyash belt conveyor in auto. Ensure that the belt operates without jerking wearing or binding.
- c. Place the Bottom ash belt conveyor in auto. Ensure that the bottom ash belt conveyor operates smooth and tracks straight.
- d. Place the Ferrous conveyor in auto. Ensure that the conveyor starts and operates properly. Monitor for abnormal vibration, movement, etc.
- e. Place the Magnetic separator in auto. Ensure the separator operates properly.
- f. Place the Spreader feeder in manual. Ensure that there is no excessive vibration, etc.
- g. Place the Main vibratory conveyor in auto. Ensure that there is no excessive noise, vibration, etc.
- h. Place all switches in the auto mode.

4. **OPERATION:** The operation of the system entails considerable monitoring. Once the system is in automatic and on line, the operator must pay strict attention to the entire system. The following items must be monitored very closely at all times:

- 4.1 Limit switch functions
- 4.2 Vibration of the conveying systems
- 4.3 Excessive movement of the conveying system
- 4.4 Condition of springs for the conveying system
- 4.5 The operating mode must be kept in automatic
- 4.6 The tracking of belts must stay true.
- 4.7 Belt tension on rubber conveyors must be monitored
- 4.8 Belt scrappers must stay clean.
- 4.9 Spring conditions on all conveyors.
- 4.10 Ash or sludge build up at the tail sprockets and rollers.
- 4.11 Wear indicated by shining surfaces
- 4.12 Rubs
- 4.13 Unusual noises
- 4.14 Erratic or excessive movement
- 4.15 Loading condition
- 4.16 Buildup on the conveyors

NOTE: If there is any doubt about the safe operation of the system, either from a personnel or equipment point of view, immediately push the emergency stop button. This will cause the entire system to stop. Do not hesitate to stop the system in the vent of a problem or suspected problem. By stopping the system you may save harm to both personnel and equipment.

- 4.17 Keep the tail assembly area clean to reduce damage and wear to the bottom ash belt conveyor
- 4.18 Keep grizzly teeth clean.
- 4.19 Monitor the gearbox oil level. Notify maintenance if they are low.
- 4.20 Do not allow the ferrous metal to pile up more than 3 feet high at the end of the ferrous conveyor.
- 4.21 Keep the area around and under the system clean.
- 4.22 Use care when moving trucks in and out to avoid damage to the belt conveyor, walls, lines, and tractor-trailer.
- 4.23 Avoid getting water on any motors, electrical boxes, or other electrical parts on the rubber conveyor belts.
- 4.24 Avoid putting your hands on any rotating or moving equipment, specifically the belt conveyor.

WARNING: This is a hardhat, eye protection, and respirator use area. Hard hats, eye protection, and respirator usage are required in this area.

- 4.25 Each time a truck is moved out from under the rubber belt conveyor, the operator must go to the top of the vibrating conveyor and remove the build up from the sides. During this time, he should also remove any build up from spreader feeder and the grizzly.

## 5. SYSTEM SHUTDOWN:

- 5.1 In the event that it is anticipated the system will be down longer than 20 minutes, use the following procedure:
  - 1. Shutdown both bottom ash drags.
  - 2. After the vibrator conveyor is clear, shut it down.
  - 3. When the spreader feeder is clear, shut it down.
  - 4. When the ferrous conveyor is clear, shut it and the magnetic separator is down.
  - 5. When the bottom ash belt conveyor is clear, shut it down.
  - 6. When the flyash belt conveyor is clear, shut it down.
- 5.2 Truck move mode: To move the truck out and replace it with an empty trailer, the operator needs to press the truck move switch. The system will immediately stop. The equipment that will stop includes the following:
  - 1. #1 and #2 bottom ash drag conveyors
  - 2. "A" Mode Conditioner
  - 3. "B" Mode Conditioner
  - 4. #1 and #2 cross feed conveyors
  - 5. #1 and #2 Flyash drag conveyors
  - 6. #1 Baghouse screw conveyors
  - 7. #2 Baghouse screw conveyors

After a truck has been moved and the system has been cleaned and inspected, the operator may restart the system.

### 5.3 Emergency Shutdown

Anytime a problem occurs or is suspected the operator should immediately press any of the emergency stop buttons. Any one of the safety switches (located under the main vibratory conveyor, at the bottom ash belt conveyor, and in the MCC room on panel below master start button) or the pull rope on the emergency stop on the rubber conveyor belt will cause the system to stop immediately.

To reset the emergency pull switches, push in on the handle and turn.

After the problem or suspected problem has been resolved, refer to the restart section of this procedure.

## 6. SYSTEM RESTART: In order restart the system; the operator must perform the following:

- 6.1 Make sure all six top switches on the control panel are in automatic.
- 6.2 Press the master start button.
- 6.3 Place the main vibratory conveyor in the off position.
- 6.4 Place the main vibratory conveyor in the automatic mode.
- 6.5 The main vibratory conveyor should start in 10 seconds.
- 6.6 Monitor the movement of the main vibratory conveyor by watching the blue stroke box on the North wall by the control cabinet.

NOTE: If the red alarm light comes on and the conveyor shuts down, do not put the conveyor in manual. Begin trouble shooting for a solution to the problem, such as conveyor build up.

- 6.7 Ensure that both bottom ash drags are shut down until the problem can be solved.

NOTE: Anytime the system trips or is taken out of service during restart, the main vibratory conveyor must be moved to the off position, then back to the automatic position to enable a main vibratory conveyor restart.

## 6. SYSTEM CARE

Care of the system must be given close attention. Monitoring, cleaning, and inspection of the system must be constant. Any abnormality in the operation of the system, whether it be belt tensioning build up, excessive noise or vibration, etc. must be reported and reacted to immediately.

The main vibratory conveyor must be cleaned each time a truck is loaded out. The grizzly and spreader feeder must also be cleaned at the time. The area around and under the system must always

be kept free and clear of debris. Metal must not be allowed to build up excessively at the end of the grizzly or ferrous conveyor. Above all, the system or any components of the system must not run in manual without the approval of the operations manager, plant engineer or facility manager. The automatic mode provides protection for the entire system, because the limit switches are not bypassed in the automatic mode.

Care must also be taken so the ash load does not become so high that when the truck is moved, that the ash causes damage to the belt conveyor.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
BOTTOM ASH REDUCTION

PROCEDURE BA-GL-02  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

This guideline was prepared in order to assist the Operations Staff at Montenay Dutchess LLC. In an effort to reduce the total amount of bottom ash and fly ash discharge from the O'Connor Rotary Combustor.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

There is only one way to change the amount of bottom ash discharge from the combustor. The Operator must burn the fuel more completely.

In order to reduce bottom ash, the operator must be constantly alert to changing bed conditions. A fuel build up or combustor overloading will cause unburned fuel to enter zone 3. The chance of excess unburned fuel spilling over to the ash drag and increasing the amount of bottom ash is greatly increased. The fire must be contained in zone B. The airflow in Zone 2 and Zone 3 must also be rigidly controlled. Any fuel that is not completely burned, whether it be blown off in a high profile bed or rolled off over the end of the combustor, will end up in the ash drag.

Combustion control is essential to the reduction of bottom ash. By reducing the bottom ash we can be assured that we have efficient and complete burning. The bag houses will not have to work as hard, the fly ash system will not have to handle as much "fly" ash and the ash drags will not have to pull as much ash out of the system.

As with many of the other guidelines, it becomes evident that controlling one system has an effect on one or more other systems. If all systems are controlled to a precise point, then plant overall operation will stabilize.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
BEARING COOLING WATER SYSTEM

PROCEDURE BCW-EO-EM-01

REVISION 3 10.08.09

Approved by:

1. PURPOSE

This document was prepared to provide instructions in the startup, operation, and shutdown of the closed cooling water system at Montenay Dutchess LLC.

The closed cooling water system is used to supply treated cooling water to much of the equipment in the plant. The system is made up of a closed loop piping supply, tank and its fill valve, two pumps (one operating and one in stand-by) and a Baltimore Air Cooler evaporative cooler.

System instrumentation consists of two step temperature transmitter that control cooling fans, and a sump level transmitter, (water level is controlled by a manually operated float flow valve).

Water flow begins at the storage tank and gravity flows to the suction of the circulating pump. The water then travels to the inlet of the BAC evaporative cooler. Once in the evaporative cooler, the heat is extracted from the water and the water leaves on its way to cool operating equipment. The water, after it has cooled the equipment, enters the closed cooling water return line flowing back into the storage tank. The water then begins its cycle again. City water is used for make up.

Chemical treatment is by means of addition of a biocide , and a chemical used to slow corrosion of the piping and equipment. The chemical test for the biocide quantity is for total Halogens with a residual chlorine level of 0.5-1.5 ppm. The corrosion inhibitor residual should be between 80-100 ppm.

The equipment protected by the closed cooling water system includes the ram packages, the forced circulation pumps, the boiler feed pumps, the sample coolers, the Turbine Generator lube oil cooler, the gland exhaust condenser and the air ejector condensers.

The closed cooling water system is the life blood of the plant. Without proper operation and chemical treatment of the system, none of the equipment mentioned above will operate for its full expected life.

Before any attempt is made to startup the closed cooling water system, all piping, electrical and instrumentation must be completed. The procedure assumes a completed, dry system such as might be experienced after an outage, where work has been performed that required the system to be drained.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

### 3. PROCEDURES

The operating staff should perform the following:

1. Open the RO supply valve to fill the BCW Tank. Fill the tank to the 1400-gallon mark.
2. Open any high point vents on the supply line.
3. Ensure that the discharge of the circulating pumps is closed.
4. With the storage tank is at  $\frac{3}{4}$  full, start #1 bearing cooling water pump.
5. Open the discharge on the running pump slowly to  $\frac{1}{4}$  open.
6. Monitor high point vents beginning at the lowest high point vent.
7. When the air has escaped from the lines, secure the high point drains beginning at the drain closest to the pump.
8. Monitor the storage tank level.
9. When the entire system has been vented and filled, open the discharge of the pump 100%.
10. Walk the system down to inspect for leaks and other abnormalities.
11. Open all supply and return lines that service the equipment. The system is now in service.

NOTE: 1800 GALLONS OF WATER WILL REQUIRE 9 GALLONS OF Nalco 8338 to raise the residual to the 80-100 PPM expected.

The system, during normal operation, will take care of itself.

The Operator must perform the following:

1. Place the pump that is not running in auto start.
2. Monitor the level in the BCW Tank. Maintain between 1500-2000 gallons.
3. Monitor the Molybdate residual. Test before adding.
4. Report any system leaks immediately.
5. Upon starting individual equipment, check the flow meters for cooling flow.
6. Monitor the temperature of the BCW tank. (Not to exceed 140°F)

The emergency operations of the closed cooling water system is as follows:

- I. Loss of the BAC.
- II. Loss of bearing cooling water system pumps

#### LOSS OF THE BAC IN THE BEARING COOLING WATER SYSTEM

1. Place the washdown hose for 84-6 into the BCW storage tank and turn on water.
2. Open fill station bypass 100%.
3. Connect a 1  $\frac{1}{2}$  " fire hose to bleed valve connection located on supply line going to the hogger house and run the hose to the clarifier tank. Bleed water to waste water system, adjusting the bleed rate to maintain BCW tank level and cooling water temperature.
4. Place the hogger jet in service for the ACC condenser and secure the air ejectors.
5. Monitor the BCW flow to the electric boiler feed pumps.
6. Monitor the Turbine Lube Oil temperature.
7. Monitor the BCW tank outlet temperature.

8. Monitor the temperature of all plant equipment.
9. Monitor the temperature of all plant equipment.
10. Prepare for an emergency shutdown, should the temperature of any equipment exceed 150° F. (BF pumps, FC pumps, T/G lube oil cooler, gland exhaust condenser, sample coolers and charging chutes).

### SHUT DOWN CLOSED COOLING WATER SYSTEM

Final shut down would include shutting down individual equipment until the last piece of equipment to be shut down is the closed cooling water pumps. Draining of the system (although not usually necessary) is done by opening the drain on the BCW storage tank.

### LOSS OF BEARING COOLING WATER PUMPS

1. Connect washdown hose for 84.6 to the 1" vent on the discharge line of the BCW pumps.
2. Monitor the temperature of the bearings and associated oil coolers. Attempt to maintain <150°F.
3. Prepare for an emergency shut down if needed.



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
EMERGENCY OPERATING PROCEDURE  
LOSS OF BEARING COOLING WATER

PROCEDURE BL-EO-04

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This document was prepared for the purpose of providing a safe and orderly shutdown of the plant when a loss of the bearing cooling water system has been experienced.

1. The primary goal of the operations staff should be secure the plant as quickly as possible, and provide for maximum safety of the plant equipment and personnel.
2. The indications of loss of the bearing cooling water system include the following:
  - 2.1 Dramatic temperature rises in operating equipment.
  - 2.2 A loss of bearing cooling water flow alarm.
  - 2.3 Equipment overheating.
  - 2.4 A turbine trip caused by high turbine oil temperature.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

4. In order to protect the plant equipment, the staff must implement the following procedure as soon as they have determined that the bearing cooling water flow cannot be restored.
  - 3.1 Put the Electric Boiler Feed Pumps on city water.
  - 3.2 Stop feeding MSW.
  - 3.3 Trip the FD fans.
  - 3.4 Close all Zone dampers.
  - 3.5 Trip the turbine.
  - 3.6 Open the vacuum breaker.
  - 3.7 Maintain boiler drum levels.
  - 3.8 Cool the units down.
  - 3.9 Leave the ID fan running. Maintain normal draft (-2).
  - 3.10 Monitor the turbine lube oil temperature.
  - 3.11 Startup and electric boiler feed pump.
  - 3.12 When the boilers are no longer taking water, shutdown the electric boiler feed pump.
  - 3.13 Monitor all plant equipment
  - 3.14 Notify the appropriate personnel.
  - 3.15 Maintain combustor rotation if the ram package is available.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
FURNACE TEMPERATURE/FLAME LIMATATIONS

PROCEDURE BL-OP-09

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

2. REFERENCES

We have received from O'Connor instructions that we can operate the boiler up to 1400 degrees F. This temperature is calculated by averaging the furnace temperature thermocouples left side and right side. Do not operate above this value.

If the furnace temperature exceeds this value, take appropriate action to reduce this temperature.

There is also a concern of flame in the screen section of the boiler tubes. We want to operate with a zone two bed profile. This should keep the flame out of the screen tubes. Monitor the flame from the viewing point next to the feed water regulation valve to insure that we have no flame in this area. Take appropriate action if you see flame in this area.

3. PROCEDURES

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
BOILER/COMBUSTOR HYDROSTATIC TEST PROCEDURE

PROCEDURE BL-OP-10  
REVISION 1 05-20-02  
Approved by: R. Chance

PURPOSE

This procedure was prepared to assist the operations and maintenance staff in performing a hydrostatic pressure test on the O'Connor Rotary Combustor/Deltak Boiler unit. During the life of the plant, there will at sometime be a need to pressure test the units. In the event that hydrostatic testing is required, to ensure maximum safety of all plant equipment and personnel, and to ensure the safety and effectiveness of the test, the personnel performing the test should perform the pre-test procedure.

REFERENCES

This section is used for references any other text, documents or procedures used in developing this procedure.

PROCEDURES

Before starting a Boiler cold fill operation go to the RO system and align as follows.

1. Check tank levels of storage tanks and make up tank.
2. Place the first pass RO system into the 60 gpm mode.
3. Open bypass valve from storage tanks to make up water pumps suction.
4. Close supply valve at bottom of make up tank to make up pumps.
5. Realign recirc lines open block to storage tanks and close block to make up tank.
6. Inform Control room of new system line up.

TIME   INITIAL

_____	_____	Ensure that there is <u>zero</u> pressure on the drum and super heater.
_____	_____	Ensure that the main steam block valve is closed and <u>LOTO</u> .
_____	_____	Ensure that the non-return valve is closed and <u>LOTO</u> , and that the soot blower isolation valves are closed.
_____	_____	Ensure that the equalizing line around the main steam block valve is closed and <u>LOTO</u> .
_____	_____	Ensure that all drains are closed. (rotary joint, water walls, mud drums)

- \_\_\_\_\_ Ensure that the continuous blow down valve is closed.
- \_\_\_\_\_ Ensure that the feed water regulating valve is isolated.
- \_\_\_\_\_ Open all high point vents. These include the water wall vents, the super heater vents, and drum vents.
- \_\_\_\_\_ Begin filling the boiler using the feed reg bypass.

WARNING: Should the D.A. level begin to fall, cut back on the by pass.

- \_\_\_\_\_ Isolate the rotary joint seal water.
- \_\_\_\_\_ When the drum level reaches +5 INWC, isolate the drum level transmitter.
- \_\_\_\_\_ Isolate the drum level sight glasses.
- \_\_\_\_\_ Open the sight glass drain valves 2 rounds.
- \_\_\_\_\_ Close off the two lines at the drum level transmitter.
- \_\_\_\_\_ Open the (center) equalizing line on the drum level transmitter.
- \_\_\_\_\_ Monitor the high point vents for water. Close off the high point vents when the lines become full.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
ZURN BAGHOUSE OPERATING PROCEDURES

PROCEDURE BG-OP-26  
REVISION 1 02.18.02  
Approved by: R. Chance

PURPOSE

This procedure is written to give a detailed instruction on the alignment and use of the Hydrated lime injection system used for controlling SO<sub>2</sub> Sulfur Dioxide and HCL Hydrogen Chloride emissions from the process unit(s) exhaust gas stream(s) as required by the site's air quality permit.

REFERENCES

GENERAL & DEFINITION

1. Eductor – a vacuum chamber used to inject lime into the lime feed hoses.
2. Quill Piece- the pipe penetration used to distribute lime into the exhaust duct.

PROCEDURE

1. STARTUP
  - a. Ensure that all Lockout/Tagouts are removed.
  - b. Ensure that the lime eductor is installed.
  - c. Ensure that the lime hoses are cleared of any foreign debris and connected to both the eductor and the quill piece.
  - d. Start the lime injection blower at the local controller in the lime blower room.
  - e. When the baghouse inlet temperature reaches 275°F, start lime injection by turning the Peabody controller to on in auto operation.
  - f. Set the Peabody controller to the desired feed rate set point.
  - g. Inform the control room operator that the lime feed system is in service.
2. OPERATION

During operation of the system, periodic observations and daily cleaning of the eductor(s) must be done to ensure proper flow and prevent blowouts as a result of blockages. The quill piece should be cleaned at least once a week, more often if needed. To clean the eductor(s) submerge in synthetic vinegar until clean, and then rinse with water.

NOTE: DO NOT STRIKE THE EDUCTOR (S) WITH A HAMMER TO REMOVE HARDENED, CAKED ON LIME.

The flow rate is recorded on the equipment operator's log each 4 hours. The daily flow through the eductor is calculated and totaled by the Peabody controller and recorded each midnight on the equipment operator's log, this total must be reset each midnight.

3. SHUTDOWN

- a. Secure the lime feed by pushing the off button on the Peabody controller.
- b. Allow the feed hoses to blow clear of lime (about 3-5 minutes).
- c. Stop the lime blower from the local controls in the lime blower room.
- d. Inform the control room operator that the lime feed system is secured.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
COMBUSTION CONTROL

PROCEDURE: CA-GL-09  
REVISION 1 02.14.90  
Approved by: R. Chance

1. PURPOSE

The following is an explanation of the combustion control system in use at Montenay Dutchess LLC. Because of varying load conditions, set points for the individual controllers will not be addressed.

I. Zone "A" Control

Control of the drying of the MSW is accomplished in Zone A through the use of "A" zone overfire and "A" zone underfire air flows.

A temperature setpoint is put into the "A" zone overfire and underfire air controllers. The temperature is then read from the thermocouple located at the ram end of the combustor. The 4-20 MA signal enters the controllers from the thermocouple. If the actual temperature is below the setpoint, the "A" zone dampers open more to cause more turbulence and better drying. This allows control of consistency in drying thus causing a more stable combustion in the B zone. The A zone dampers are run in the automatic mode.

II. Steam Flow Control

The steam flow is adjusted and stabilized by the B zone overfire and B zone underfire air flows.

A steam flow setpoint is put into the steam flow controller. B zone overfire and underfire dampers are put in automatic and setpoint is entered into the controller. When the steam flow (actual) nears the setpoint, the controller is put into automatic mode. The steam flow controller, in this mode, provides a remote setpoint for the B zone overfire and B zone underfire air flows controllers. If the steam flow is below the setpoint, B zone overfire and underfire air dampers will open to provide more combustion, and thus more steam flow. If the steam flow (actual) is above the setpoint, the B zone overfire and underfire air damper will cut back, thus providing less air, less combustion, and less steam flow.

III. Ram Control

The ram speed setpoint is put in by the operator after the boiler is stable. The ram speed controller is put in the automatic mode. In this mode the O<sub>2</sub> analyzer sends a 4-20 MA signal to the ram speed controller. If the O<sub>2</sub> in the boiler is less than a target % (5%-7%) the rams will slow down 1% thus preventing over loading. If the O<sub>2</sub> is greater than the target range (5%-7%) the rams will increase a maximum of 1% above their set point to prevent under loading of the combustor.

IV. B Zone Air

B zone overfire and underfire air are controlled by the steam flow controller.

IV. C Zone

C zone over fire is run in automatic using O2 as a remote setpoint.

C zone under fire is run in automatic using O2 as a remote setpoint.

V. Combustor Rotation

Combustor rotation is controlled in manual.

VI. O2 Control

O2 control and ultimately Co control is achieved by increasing and decreasing the air in zone C and by varying the ram speed. Both ram speed and "C" overfire and "C" underfire are driven by an O2 remote setpoint. Rams, "C" underfire and "C" overfire, are run in automatic.

The combustion control process is driven automatically by a series of Moore 352 configurable controllers.

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED  
OUT OF SEQUENCE

<u>STEP NO.</u>	<u>REASON</u>	<u>SHIFT SUPERVISOR</u>
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COMPLETION:      \_\_\_\_\_      \_\_\_\_\_  
                                 CONTROL OPERATOR      SHIFT SUPERVISOR



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
CONTROL SYSTEM LOGIC AND CHANGES

PROCEDURE CS-GL-12

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

The following changes have been made to the control system logic along with a short explanation of the control philosophy currently being used at DRMI. As in previous interoffice memo, the steam dump switch has been installed.

- A. The normal operation mode is normal.
- B. The abnormal operating mode is blocked.
  - A.1 When in normal, a turbine generator, or a turbine trip will cause PCV 440, PCV 420, TCV 440, and TCV 420 to go 100% open immediately.
  - B.1 In blocked, PCV 440, PCV 420, TCV 440 will open based on gain as a normal function. The mode will not provide any boiler pressure or safety lifting protection when the turbine generator trips.
- C. Except when starting up, or when experiencing a turbine generator or main incoming breaker trip, the dump switch must be operated in the normal position.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
WET MSW OPERATING GUIDELINES

PROCEDURE FD-GL-06

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

These guidelines are intended to help the operators in burning M.S.W. in the O'Connor Rotary Combustor.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

The instructions represent a base line from which to operate.

1. Slow the combustor speed.
2. Slow the ram speed.
3. Raise FD Fan output to 15" WC.
4. Maintain bed profile as close as possible. (See Below)
5. Do not overload the combustor with fuel.
6. Attempt to maintain 1,100 to 1,200 degrees F in zone 1.
7. Ensure that the total air in damper is open enough to get the needed air to the zones.
8. Make frequent inspections of the bed conditions from the combustor inspection door.  
Do not rely too much on the T.V. camera. The camera may deceive the operator.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
HOUSELOAD REDUCTION PROCEDURE

PROCEDURE FD-OP-16

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

In the event that becomes necessary to shut down a boiler for more than 4 hours, it is imperative that the operations staff reduces the house load as soon as possible.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure*

3. PROCEDURES

This procedure covers only the normal and planned shutdown of one unit. Emergency shutdown of a unit is not covered in this procedure.

After the barrel has been burned out, using the combustor burner:

1. Shutdown the combustor burner.
2. Shutdown the FD fan
3. Stop the Lime injection to the boiler
4. Shutdown the sifting conveyor.
5. If possible, open the boiler inspection doors.
6. Use a -.3 set point for the ID fan.
7. Increase the steam flow on the operating boiler to 56 KLB/HR.
8. After one-hour shutdown the bottom ash drag.
9. Raise the set point of PCV 440 to 660 PSIG.
10. When the combustor discharge water temperature reaches 200 F shutdown the forced circulation pump.
11. Stop the combustor rotation.
12. Shutdown the ram package.
13. Stop feeding phosphates to the down boiler.
14. Reduce the liquamine and sulfite feed to 50% of their normal feed rate.
15. Trip the breaker on the baghouse reverse air fan.
16. Stop the baghouse screw conveyors.
17. Stop the fly ash drag.
18. Stop the ID fan.
19. Empty and shutdown the fly ash conditioner.

NOTE: Modifications to this procedure will be put into effect as conditions such as ash system modification come on line.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
RECOVERING OF STEAM FLOW AFTER EXPERIENCING LOW BED PROFILE

PROCEDURE OP-OP-08  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

2. REFERENCES

3. PROCEDURES

In the event that one of the combustors loses its fuel bed profile because of the fuel flashing off, the recovery time until the steam flow reaches the steam flow set point can be quite lengthy. Implementation of this procedure will shorten the recovery time substantially.

When the fire backs up in the combustor into Zone 1, and the steam flow falls below the set point, the operator should perform the following:

1. Increase the Ram speed
2. Change the Zone 1 over fire and Zone 1 under fire air dampers from cascade to automatic
3. Raise the Zone 1 airflow set point to 400 to 450 KSCFH.

When the steam flow gets within 3klb hr. of the set point:

1. Lower the ram speed to the previous set point.
2. Place the Zone 1 over fire and under fire air dampers in cascade.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATION PROCEDURE  
CONTROLLING THE BED PROFILE IN THE O'CONNOR ROTARY COMBUSTOR

PROCEDURE: RC-GL-01

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This guideline was prepared to assist the operations staff at Montenay Dutchess LLC. In controlling the bed profile. If the bed profile is controlled the boilers will require less air, gain efficiency and the operators will have better combustion control. The net end results are more narrow steam swings and more consistent and higher megawatt output along with a reduction of bottom ash discharge.

The three (3) profiles discussed in this guideline, along with their respective diagrams are the high profile bed, the normal profile bed and the low profile bed. The discussions are based on observations of the bed profiles and the observed results of the individual conditions.

The diagrams, Fig 1A, 1B, 2A, 2B, 3A and 3B, are views representative of high, normal, and low profile beds respectively.

THE HIGH PROFILE BED

The high profile bed (fig 1A and 1B) is a preview of disaster. While operating the rotary combustor with the high profile condition existing, the combustor is on the very edge of overloading. Although steam flow may be acceptable, the slightest change in fuel moisture content may cause an immediate steam flow reduction; and in some cases a total loss of steam production from the overloaded boiler.

During the time that a high profile bed is present many abnormal conditions will become evident to the operations staff. These conditions are, increased airflow in Zones 1 and 2, Zone 1 temperature below 800 degrees F, abnormal amounts of bottom ash, high velocity air blowing particles off the bed and possible high opacity readings. O<sub>2</sub> and CO will tend to be out of control.

Visually the high profile bed exhibits itself as a dark smoky spot in the bed, when viewed using the TV camera.

When observed from the inspection port at the rear of the combustor, the combustor interior will be smoky. There will be a dark spot in the bed. The fire will be dark orange. Burning will be observed in Zone 3. The bed will not have the "mushroom" characteristic in Zone 2. In short, the combustor is overloaded.

The action taken should include a reduction of ram speed and a constant monitoring of bed conditions.

NOTE: Visual inspection of the combustor from the inspection port is recommended. The TV camera can cause the bed to appear different than when viewed from the viewing port.

### NORMAL BED PROFILE

The normal profile of the bed should be such that the bed height should be about ½ the height of the resistance door. Little or no burn should occur in Zone 3. the fire will be white or yellow with minimal smoke in the combustor. The bed will also exhibit the famous “mushroom” appearance. Steam flow will be stable, bottom ash and opacity will be reduced. CO and O2 will be controllable.

These conditions associated with the normal profile bed, make this the most acceptable and efficient method of burning M.S.W. or wood products in the O'Connor Rotary combustor.

### THE LOW PROFILE BED

The low profile bed is evident by erratic steam flow and an inability to reach 100% capacity of the boiler.

The low profile bed will be bright white, but the fire will be contained in Zone 1 or the first few feet of Zone 2. No fire will be evident in Zone 3. Very little smoke will be evident and the resistance door may be clearly visible. O2 will be high. CO will be low. Airflow will be at maximum. In reality, the boiler is suffering from lack of fuel.

To rectify this situation, ram speed must be increased until the normal bed profile is formed in the combustion.

NOTE: Attached are diagrams of the three bed profiles. Please note the differences.

## 2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

## 3. PROCEDURES

1. The generator has protective devices such as the reverse current relay that should protect the machine in the event that zero power output is reached. However, should the D.C. current to the turbine generator control board be lost, the protective device for reverse current protection will not operate.
2. The indication of a reverse current will be evident in the fact that the generator output (MW) will be 0 and the generator breaker will remain closed. In the event that this occurs, the operator must do the following immediately:
  - 2.1 Trip the generator breaker.
  - 2.2 Ensure that the breaker is actually tripped.

NOTE: If the breaker will not trip the generator, trip the Central Hudson Power breaker on the turbine generator control board.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
CARBON MONOXIDE CONTROL IN THE O'CONNOR ROTARY COMBUSTOR

PROCEDURE RC-GL-10

REVISION 05.20.02

Approved by: R. Chance

1. PURPOSE

This guideline was written in order to provide assistance to the operating staff in the area of carbon monoxide control.

1. It is imperative that the fuel load and loading be consistent.
2. Steam swings due to fuel loading and or bridging must be maintained.
3. Excess air leakage, such as the loss of ash or sifting conveyor seal must be prevented.
4. O<sub>2</sub> must remain in a 3.9 – 6.0 range.
5. The rams must be in automatic.
6. B Zone air must be in automatic.
7. The steam flow must be in automatic.
8. C zone over fire and c zone under fire must be in “Auto” with a set point of 5.0 to 6.8.
9. C zone over fire and c zone under fire must be in “Auto” with a set point of 5.0 to 6.0
10. Generally, the over fire air in zone B must be greater than the under fire air in zone B.
11. The zone 1 temperature must be <1000 F.
12. The boiler temperature must be >1250 F.
13. The I.D. fan set point must be -.2 INWC and the draft must be steady.
14. The grate under the air dampers must be 100% open.
15. The bed profile must be in zone B.
16. Combustor speed must be constant at >12% and <25%.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES



COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
OPERATION OF TURBINE GENERATOR TRIP SWITCH

PROCEDURE TG-OP-20

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

A new switch has been installed on the turbine/generator board. The switch is located above the generator synchronization breaker on the control board. The switch is marked blocked and normal in reference to the operation mode of this switch.

The normal operating mode is normal.

The abnormal mode is blocked.

In the normal operating mode PCV 420, PCV 440, TCV 430 and TCV 440 will operate to hold their predetermined set points.

In the event of a turbine trip, PCV 420, PCV 440, TCV 430 and TCV 440 will open 100%.

In the event of a generator breaker trip, PCV 420, PCV 440, TCV 430, and TCV 440 will open 100%.

In the event of loss of off-site power or utility breaker trip, PCV 420, PCV 440, TCV 430 and TCV 440 will open 100%.

In any of these three scenarios the operator will not have control of PCV 420, PCV 430, TCV 430 or TCV 440 until the dump switch has been put in the blocked position.

Previous to putting the switch in the blocked position all steam will be dumped to the A.C.C.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure*

3. PROCEDURES

The operator must perform the following in the event of any of the above-mentioned scenarios only after the header pressure has been reduced to 500 PSIG.

1. PRE-START UP

- 1.1 Change the dump switch mode to "blocked".
- 1.2 Reset all set points in the following controllers:
  - a. PCV 420 - 180 PSI
  - b. PCV 440 - 590 PSI
  - c. TCV 430 - 488° F

d. TCV 440 - 196° F

- 1.3 When the turbine trip and throttle valve is relatched, the incoming breaker is closed and the generator is tied to the grid, return the dump switch to the automatic position.

NOTE: If the dump switch is put in the normal mode before the turbine trip and throttle is relatched, the valves PCV 420, PCV 440, TCV 430, and TCV 440 will again open to the 100%.

- 1.4 Drain all condensate from the turbine inlet steam header using the header drains.

CAUTION: Do NOT open the steam header drains more than THREE COMPLETE TURNS!

- 1.5 Ensure that the liquid mover has a 60 psi steam supply.  
1.6 Test fire the liquid mover to prove its functional readiness.  
1.7 Open the turbine casing drain two complete turns.  
1.8 Open the over seat and under seat drains three complete turns.  
1.9 Open the block valve bypass two complete turns.  
1.10 Ensure that all water and condensate is drained from the main steam line.  
1.11 Ensure that the superheated steam temperature is GREATER than 525 F.  
1.12 Ensure that the steam pressure from the boiler(s) is GREATER than 550 PSIG.  
1.13 Ensure that PCV 440 is in auto.  
1.14 Ensure that PCV 440's set point is GREATER than 550 PSIG.  
1.15 Ensure that PCV 420 is in auto.  
1.16 Ensure that PCV 420's set point is 170 or 180 PSIG.

#### STARTUP FROM COLD

WARNING: during the implementation of any part of this section, should the Turbine Generator set behave in any abnormal manner, that is, produce excessive vibrations, unusual noise, scraping sounds, abnormal pressures, etc, TRIP the turbine IMMEDIATELY.

- 2.1 Reset all relay flags, which are located in the MCC room.  
2.2 Reset breaker 86 and 86G.

NOTE: The turbine must roll within FIVE MINUTES. If movement is not sensed, the throttle will trip.

- 2.3 The operator must press, "START" on the Tri-Sen 310 panel. This will cause the throttle to latch.  
2.4 Clear and reset all turbine alarms.  
2.5 The outside operator may, on direction from the Shift Supervisor, open the trip and throttle valve to establish a 200 rpm turbine speed.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
MUFFLER CONTROL VALVE

PROCEDURE TG-OP-22

REVISION 1 05.20.02

Approved by: R. Chance

1. PURPOSE

This document was prepared to assist the operators in shutting down the main turbine generator set.

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

It will, at some time, become necessary to shut down the main turbine generator set. In the event that this becomes necessary the operations crew should perform the following procedure:

NOTE: If time permits, the boiler steam flows should be decreased to 30-35 klb hr.

If time permits, lower the set point on PCV-440 to 550. This will allow the pressure to be reduced on the main steam header and at the same time reduce the generator output. When the generator output reaches 1.0 megawatts, perform the following:

1. Leave the turbine in cascade control.
2. When the generator output reaches about 1 mw, trip the generator breaker.
3. Trip the exciter breaker.

NOTE: The turbine will continue to run.

4. Ensure that the "Gen prot Lockout" is tripped.
5. Press, "STOP" on the TS 310 governor.
6. Ensure that the turbine goes on turning gear.
7. Ensure that the load is reduced to 35 KLB HR per boiler.
8. Isolate the gland sealing steam.
9. If the generator is to be down for more than 4 hours, see TG-OP-11, Elliot Turbine/Ideal Generator Start Up, Operating, Shutdown, and Emergency Shutdown Procedure.

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
OPERATING PROCEDURE  
SUMP MANAGEMENT ROUTINE

PROCEDURE WW-GL-08  
REVISION 1 05.20.02  
Approved by: R. Chance

1. PURPOSE

2. REFERENCES

*This section is used for references any other text, documents or procedures used in developing this procedure.*

3. PROCEDURES

In order to control the wastewater in the plant and to provide control of the wastewater treatment plant and the discharges the following routine will be in effect:

1. Check the sump visually every hour.
2. Maintain the sump at or near a 3 foot level (approximately 9 ft. below the grating)
3. Attempt to maintain the equalization tank <40% full (except in winter months maintain 40%).
4. Maintain the clear well level at 75% full.
5. Always maintain enough space in the sump to provide 1 regeneration of a demineralizer.  
(Approx. 20,000 gals)

## **4.0 FACILITY INSPECTION PROCEDURES**

### **4.1 GENERAL REQUIREMENTS**

The Agency will follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices and equipment, and structures such as dikes and sump pumps that are important to preventing, detecting, and responding to environmental or human health and safety hazards. A copy of this schedule will be kept in the Administration Building. The schedule will identify the types of problems (e.g. malfunctions or deterioration), which are to be looked for during the inspection.

Frequency of inspection will vary based on the rate of possible deterioration of the equipment and the probability of an environmental or human health or safety incident. At a minimum, safety equipment will be inspected monthly.

The Facility Manager must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health or safety hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

The Agency will record inspections in an inspection log, which will be kept on file at the Site for at least seven years from the date of inspection. At a minimum, these records will include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

#### **NYSDEC Access**

The Agency will allow the Commissioner of NYSDEC or his authorized representative, upon the presentation of proper identification, to enter the Site, at reasonable times, for the purposes of:

- (a) Consultation with contractor or Agency personnel;
- (b) Reviewing and copying any records that must be kept under the conditions of the permit;
- (c) Inspecting of any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

- (d) Sampling or monitoring for the purposes of assuring permit compliance or as otherwise authorized by the Environmental Conservation Law.

## **4.2 PLANT INSPECTION**

A sample Plant Inspection form and operator's response is located in the Appendices at the end of this section (see Appendix 4-1).

## **4.3 MONTHLY PLANT SAFETY INSPECTION**

A sample Plant Safety Inspection checklist is in the Appendices located at the end of this section (see Appendix 4-2).

## **SECTION 4.0**

## **APPENDICES**

**APPENDIX 4-1**

**SAMPLE PLANT INSPECTION FORM**



## 4.2 PLANT INSPECTION

6NYCRR360-1.14H

Date of Inspection \_\_\_\_\_

Time of Inspection \_\_\_\_\_

Name of Inspector \_\_\_\_\_

Description of Inspection (Identify equipment and structure inspected):

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Observations:

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Corrective Action and Date:

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## **APPENDIX 4-2**

### **SAMPLE PLANT SAFETY INSPECTION CHECKLIST**

# **SAFETY INSPECTION CHECKLIST**

Dutchess County Resource Recovery Facility  
Covanta Hudson Valley Renewable Energy

Plant Safety Inspection checklist area listing

1. Crane Deck
2. 5<sup>th</sup> and 6<sup>th</sup> floor
3. 3<sup>rd</sup> and 4<sup>th</sup> floor
4. Air compressor room
5. Lunch/Locker room area
6. 2<sup>nd</sup> Floor
7. Lobby, Control Room & EDC1
8. 1<sup>st</sup> Floor
9. Maintenance Shop
10. Ash Alley
11. Waste Water Area / Air Ejector Building
12. Baghouse/Air Cooled Condensers/ CEM System / EDC 2
13. Bearing Cooling Water Room (84' 6")
14. Outside area
15. Tipping Floor
16. Turbine Room
17. Warehouse
18. Lime preparation building
19. SDA Air Compressor/EDC 3 Room
20. SDA Penthouse #1 & #2, Lime Silo Room

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevations: 117' 6"

Area: CRANE DECK	Sat.	Unsat.	Comments
Exit marked and unobstructed			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Roof fans on only when necessary			
Decks clear of debris			
Smoke or ash coming from hoppers			
Floor dry of oil and water			
Pulpit glass in good condition			
Plant phone in proper condition			
Crane sirens working			
Pulpit radio working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevations: 121' 9", 115' 6", 113' 9", 110' 8"

Area: 5 <sup>th</sup> and 6 <sup>th</sup> FLOOR	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Floor clean of papers by DA			
Steam leaks			
Planks stacked orderly			
Boiler tubes stacked orderly			
Plant phone in proper condition			
Smoke or ash coming from boiler			
Garbage cans available and empty			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevations: 90' 6", 93' 1", 96' 6", 99' 6", 101'

Area: 3 <sup>RD</sup> AND 4 <sup>TH</sup> FLOORS	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Steam leaks			
Conveyer covers and guards in place			
First aid cabinet stocked adequately			
Safety glass over boiler inspection ports			
Hydraulic rams			
Plant phone in proper condition			
Smoke or ash coming from boiler			
Garbage cans available and empty			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: AIR COMPRESSOR ROOM	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Portable ladders (condition)			
Passageways clear from obstruction			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Excessive dust			
Oil stored and labeled properly			
Floor dry of oil and water			
Floor clear of speedy-dry			
Compressors guards in place			
Blow down lines in drain			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: LUNCH/LOCKER ROOM AREA	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Passageways clear from obstruction			
Toilets/showers/sinks in working order			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Garbage cans available and empty			
Floor clear of hangers			
Floor clear of ash			
Floor dry of water			
Food stored properly			
Food handling surfaces clean			
PPE. Stored properly			
PA Phone working (Hallway)			
Miscellaneous			

Notes:



# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevation: 78' 6"

Area: 2 <sup>nd</sup> FLOOR page 1 of 2	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Chemicals stored and labeled correctly			
Oil stored and labeled properly			
Floor dry of oil (behind Lab)			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevation: 78' 6"

Area: 2 <sup>nd</sup> FLOOR page 2 of 2	Sat.	Unsat.	Comments
Conveyer covers and guards in place			
Storage racks clean and orderly			
Plant phone in proper condition			
Low Head Room signs in place			
Eye Protection Needed signs in place			
Safety glass over boiler inspection ports			
Smoke or ash coming from boiler			
Garbage cans available and empty			
Steam leaks			
Portable ladders (condition)			
Lab room condition - chemical storage			
Ash room condition			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: Lobby, Control Room & EDC1	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Passageways clear from obstruction			
Eye wash station in proper condition			
Clearance around electric panels			
Electric panels and wires secured			
Plant phone in proper condition			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Garbage cans available and empty			
All electric cabinets properly closed			
Floor clear of ash			
Floor dry of water			
First aid cabinet stocked adequately			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevation: 66' 6"

Area: 1 <sup>st</sup> Floor Page 1 of 2	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Chemicals stored and labeled correctly			
Hoses stored properly			
Steam leaks			
Floor dry of oil and water			
Conveyer covers and guards in place			
Storage racks clean and orderly			
Chemical feed pumps - leaks etc.			
R.O. system - leaks etc.			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevation: 66' 6"

Area: 1 <sup>st</sup> Floor Page 2 of 2	Sat.	Unsat.	Comments
Plant phone in proper condition			
Low head room signs in place			
Eye wash stations operational			
Smoke or ash coming from boiler			
Garbage cans available and empty			
Welding machine in proper condition			
All Red light for in house crane			
Trip hazards in quench pits removed			
Over head sign by in house crane			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: MAINTENANCE SHOP page 1 of 2	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Passageways clear from obstruction			
Clearance around electric panels			
Electric panels and wires secured			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Spray cans stored and labeled correctly			
Hoses stored properly			
Floor dry of oil and water			
Storage racks clean and orderly			
Flammable fluid cabinets in order			
Fire protection water valves accessible			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: MAINTENANCE SHOP page 2 of 2	Sat.	Unsat.	Comments
Plant phone in proper condition			
First aid cabinet stocked adequately			
Guards on all power tools			
Fan over welding table working			
Extension cords in proper condition			
Air hose in proper condition			
Office clean & orderly			
Garbage cans available and empty			
Welding machine in proper condition			
Cutting torch(s) in proper condition			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: ASH ALLEY	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Oil stored and labeled properly			
Floor dry of oil and water			
Oil storage area clean and orderly			
Passage way clear			
Miscellaneous			
PA Phone working			

Notes:



# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: WASTE WATER AREA / Air Ejector Room	Sat.	Unsat.	Comments
Area clean and orderly			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Hoses stored properly			
Electric panels, boxes or wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Fire protection equipment			
Trip Hazards			
Floor dry of oil and water			
Eye wash station in proper condition (Hogger Room)			
Confined space signs on tanks			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: BH/ACC'S/CEMS/ EDC 2	Sat.	Unsat.	Comments
Area clean and orderly			
Swing gates proper condition			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Floor dry of oil and water			
Conveyer covers and guards in place			
Garbage cans available and empty			
Dirt under ACC' s level			
Test GFI' s (if any)			
PA Phone working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Elevation: 84' 6"

Area: BEARING COOLING WATER ROOM (84"6")	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Non-exit marked			
Portable ladders (condition)			
Passageways clear from obstruction			
Stairs/stairways/handrails/toe boards			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting condition			
Fire protection equipment			
Excessive dust			
Chemicals stored and labeled correctly			
Floor clear of ash and metals			
Floor dry of oil and water			
Conveyer covers and guards in place			
Low Head Room signs in place			
Guards on drive belts			
Ash coming from conditioner			
Covers on conditioners			
PA Phone working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: OUTSIDE AREA	Sat.	Unsat.	Comments
Area clean of litter and debris			
Fuel oil tank in proper condition			
Pavement in good repair			
Portable ladders (condition)			
Curbs in good repair			
Gas bottles properly stored			
Clearance around electric panels (BH)			
Transformer area clean and dry			
Pits/floor openings covered or guarded			
Lighting conditions			
Equipment stored properly			
Fire protection equipment			
Excessive dust			
Traffic signs in proper condition			
Road way clear of ash and metals			
Road way dry of oil and water			
Metal racks neat and organized			
PA Phone working ( ACC Bay 2 )			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: TIPPING FLOOR	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Passageways clear from obstruction			
Guardrails in proper condition			
Clearance around electric panels			
Pit/floor openings covered or guarded			
Lighting conditions			
Fire protection equipment			
Excessive dust			
Lights on loader operational			
Plant personnel wearing safety vests			
Roof fans off unless needed			
Floor dry of oil and water or mud			
Over head crane operation signs on door			
Hard hat signs in place			
Eye protection needed signs in place			
PA Phone working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: Turbine Room	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Clearance around electric panels			
Electric panels and wires secured			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Oil stored and labeled properly			
Floor dry of oil and water			
Steam Leaks			
Passage way clear			
PA Phone working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: WAREHOUSE	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Clearance around electric panels			
Electric panels and wires secured			
Passage way clear			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Oil storage area clean and orderly			
Floor dry of oil and water			
Overhead storage			
Shelf load limit label in place			
PA Phone working			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: LIME PREPARATION BUILDING	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Clearance around electric panels			
PPE available			
Pits/floor openings covered or guarded			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Oil stored and labeled properly			
Floor dry of oil, slurry and water			
Proper Chemical storage and labeling			
Passage way clear			
Eyewash and shower in working condition			
Stairs/stairways/handrails/toe boards			
Test GFI's (if any)			
PA Phone working			
Miscellaneous			

Notes:



# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: SDA AIR COMPRESSOR/ EDC 3	Sat.	Unsat.	Comments
Area clean and orderly			
Exit marked and unobstructed			
Portable ladders (condition)			
Clearance around electric panels			
Electric panels and wires secured			
Floor dry of oil and water			
Lighting conditions			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Passage way clear			
PA phone working			
Test GFI's (if any)			
Miscellaneous			

Notes:

# SAFETY INSPECTION CHECKLIST

Dutchess County Resource Facility

Inspecting Personnel:

Date:

Area: SDA Penthouse 1&2, lime Silo room	Sat.	Unsat.	Comments
Area clean and orderly			
Stairs/stairways/handrails/toe boards			
Portable ladders (condition)			
Clearance around electric panels			
Lighting conditions			
PPE available			
PA Phone working			
Emergency lighting conditions			
Fire protection equipment			
Excessive dust			
Chemicals stored and labeled properly			
Floor dry of slurry and water			
Test GFI's (if any)			
Passage way clear			
Miscellaneous			

Notes:

<p align="center"><b>SAFETY INSPECTION CHECKLIST</b></p> <p align="center">Dutchess County Resource Facility</p>	
--	--

<p align="center"><b>SAFETY INSPECTION CHECKLIST</b></p> <p align="center">Dutchess County Resource Facility</p>	
--	--

Inspecting Personnel:	Date:
-----------------------	-------

Inspecting Personnel:	Date:
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[illegible]

Notes:

## 5.0 STAFFING

The Agency is the owner of the Facility and operates the scale house. Covanta Hudson Valley Renewable Energy LLC performs operations and maintenance of the Facility under a 16-year Service Agreement. A contractor under a contract with the Agency removes residue and recovered materials from the Facility site.

The Agency has a full time staff of seven. The Agency Engineer under a contract with the Agency provides technical support. Figure 5.0-1 shows the organization chart for the Agency.

Covanta Hudson Valley Renewable Energy LLC has a full time staff of forty-six (46), including four operating shifts of six each. Figure 5.0-2 shows the organization chart for Covanta Hudson Valley Renewable Energy LLC.

The Facility site is open for the receipt of MSW from 6:00 a.m. to 4:00 p.m. Monday through Saturday. The Facility normally processes MSW 24 hours per day, seven days per week, and shuts down only for scheduled maintenance or when forced to shut down by equipment malfunctioning.

# DUTCHESS COUNTY RESOURCE RECOVERY AGENCY ORGANIZATION CHART

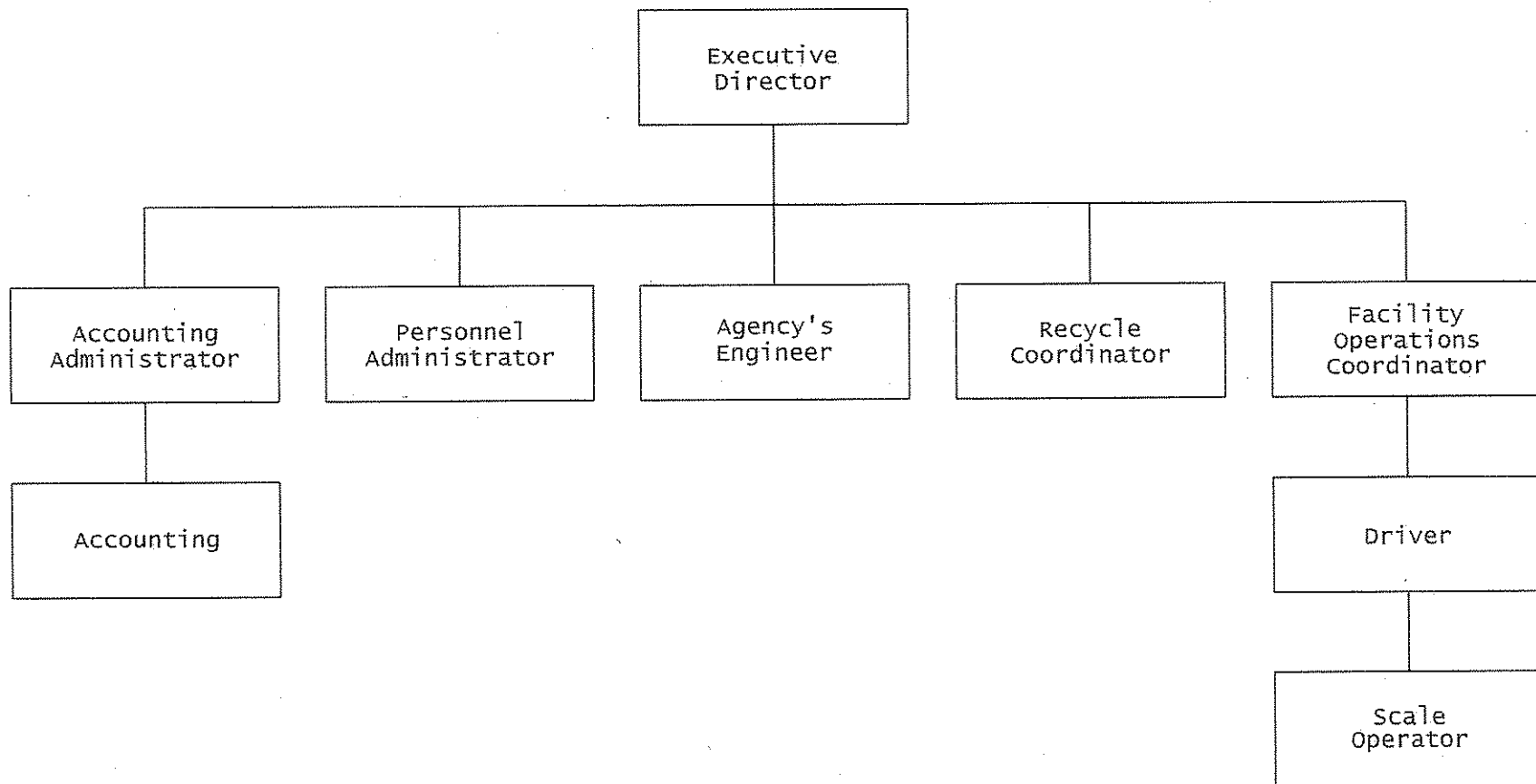
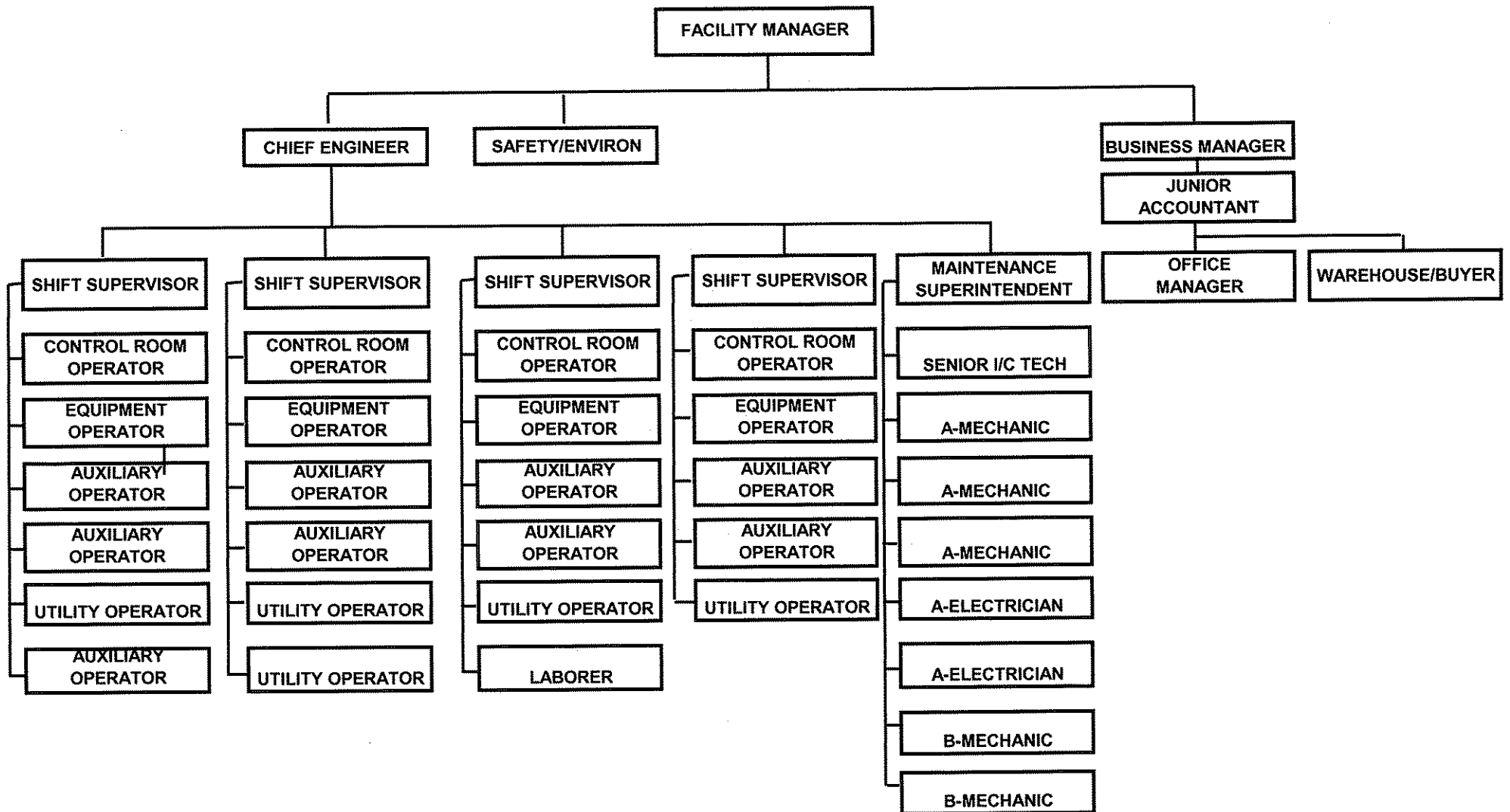


Figure 5.0-1

# FACILITY OPERATOR'S ORGANIZATIONAL CHART



## **6.0 WASTE CONTROL PLAN**

### **6.1 OVERVIEW**

#### **6.1.1 PERMITTED ACTIVITIES**

Permitted activities at the Facility include the delivery, unloading and combustion of municipal solid waste, non-hazardous commercial and industrial waste and medical waste that complies with permit conditions and the loading and transshipment of residue, recovered materials, process rejects, and bypass waste. No other solid waste activities are permitted unless a special permit condition is issued by NYSDEC.

Municipal Solid Waste is defined as household waste (waste from single and multiple dwellings, hotels, motels, and other residential sources) and non-hazardous waste from commercial and industrial sources. Hazardous waste as defined in 6 NYCRR Part 371 may not be accepted.

#### **6.1.2 AUTHORIZED USERS**

All users of the Facility must be licensed by the Dutchess County Department of Solid Waste Management. Only private carters that collect in the Facility service area and municipalities in the service area that operate their own solid waste collection services are eligible to be licensed to use the Facility. Licensed users will be issued identification stickers identifying the vehicle and the operator. Vehicles not displaying identification stickers will not be allowed to enter the Facility site unless special permission is obtained from the Executive Director of the Agency. Private individuals will not be allowed to enter the Facility site, but may deposit recyclable materials in bins located in the visitor parking lot for that purpose.

#### **6.1.3 HOURS OF OPERATION**

The Facility scale house is open to receive waste from 6:00 a.m. to 4:00 p.m. Monday through Saturday. The scalehouse will be closed on major holidays.

Special deliveries of solid waste may be accommodated upon prior approval of the Agency outside regular hours. At least 24 hours advance notice is required for special deliveries.

Waste is processed 24 hours per day, 365 days per year, unless the Facility is shut down for major maintenance or as the result of a forced outage. Ash residue and recovered materials are removed from the site only during normal operating hours of the Agency scales and will be scheduled to arrive at the disposal site during its operating hours.

Waste will be accepted even during outages, but may be transferred to an alternate disposal site if pit storage is not available.

#### 6.1.4 WASTE QUANTITIES

An Environmental Impact Statement on Solid Waste Management in Dutchess County was prepared in March 1989 by International Technology Corporation. The EIS estimated a County-wide waste generation rate of 5.1 tons per capita day, including yard waste and source separated recyclables. Based on a 1990 estimated County population of 269,000, the total annual waste generation was estimated at 250,000 tons.

The most recent data on solid waste generation in the service area is based on a questionnaire completed by private carters and municipalities and shows total waste generation in the service area to be about 220,000 tons per year in 1987. Based on this survey, the Agency prepared allocations to carters and municipalities to result in waste deliveries at the Facility to match the available capacity. The maximum scheduled delivery rate is 3,300 tons per week and a maximum permitted throughput of 164,000 tons per year.

Based on Agency scale records, it appears that waste generation is lowest during the winter months, with January and February as much as 25% below the annual average. Peak waste generation rates in late spring or early summer can be as high as 25% above the annual average.

There are also variations by the day of the week, resulting mostly from the collection practices. Most of the carters in Dutchess County collect twice weekly. As a result, about half of the weekly waste deliveries occur on Monday and Tuesday. Deliveries then level off for the last three workdays. Saturday deliveries are generally only 5% of the total weekly deliveries.



## 6.1.5 TYPES OF WASTE

### ACCEPTABLE WASTE

Acceptable waste includes all solid waste originating from households and waste from commercial and industrial sources that do not constitute hazardous waste, including treated and destroyed medical waste certified as having been treated and destroyed in accordance with 6 NYCRR Part 360-17. Acceptable waste includes expired pharmaceuticals, garbage, trash, rubbish, and refuse, and, to the extent that they are included in household waste only, oversized and bulky objects such as mattresses, furniture, white goods (refrigerators and washing machines) and automobile tires. Branches, leaves, twigs, grass and other cuttings, and tree trunks and lumber not to exceed six feet in length and 12 inches in diameter are acceptable to the extent that their disposal is not mandated at another facility under recycling regulations.

Only Treated Destroyed Medical Waste (TDMW) as defined in 6NYCRR Part 364 will be accepted at the Facility. Untreated Regulated Medical Waste (RMW), pathological waste, radioactive waste, animal carcasses and body parts, as those terms defined in 6NYCRR Part 364, will not be accepted at the Facility and are considered to be Unauthorized Medical Waste. Additionally, needles, syringes, scalpels and lancets will not be accepted at the Facility and constitute Unauthorized Medical Waste. Other items defined as sharps in 6NYCRR Part 364, such as laboratory glassware, will be accepted in puncture resistant sharp containers.

### UNACCEPTABLE WASTE

Unacceptable waste includes explosives, pathological and biological waste that have not been treated and destroyed in accordance with 6NYCRR Part 360-17, radioactive materials, ashes and incinerator residue, sewage sludges, septic tank pumpouts, and other human waste, human and animal remains, motor vehicles and motor vehicle parts such as transmissions, rear ends, springs, and body parts, loads composed of automobile and other vehicle tires, agricultural and farm equipment, transformers, trees and pieces of lumber in excess of acceptable dimensions, liquid wastes including sludges from air or water pollution control or water treatment plants, non burnable construction and demolition debris, and any waste defined as a hazardous waste in 6 NYCRR Part 371 or regulated under 6NYCRR Part 364, unless the hauler has a valid Part 364 permit that specifies the Facility as the disposal site.

## HAZARDOUS WASTE

Hazardous waste may not be tendered for disposal at the Facility, but must be disposed at sites specially permitted to accept such waste. The Agency has established rules and regulations to prevent the delivery and processing of hazardous waste at the Facility. All licensed carters are bound by such rules and regulations.

Household wastes may contain small amounts of hazardous materials, which are defined as household hazardous waste. These may include pesticides, automotive fluids, building materials, printing products, household cleaners, hobby and craft products, and personal care products. Most of these materials are destroyed during incineration without a measurable impact on air emissions. Nevertheless, the County, the Agency, and local municipalities are cooperating by sponsoring household hazardous waste cleanup days to reduce the amount of hazardous materials in household waste.

### 6.1.6 REGULATIONS AND PENALTIES

Local Law No. 1 of 1984 defines the types of solid waste, which are to be directed to specific disposal facilities by the Commissioner of Solid Waste Management. Persons in violation of the Agency or County rules and regulations governing the delivery of wastes to the Facility will be subject to penalties. Violator of Local Law No. 1 can be subject to a fine of not more than five hundred dollars and/or imprisonment for not more than fifteen days and/or suspension or revocation of collection, receiving, transporting, and/or disposing privileges in conjunction with solid waste within the County of Dutchess.

As the result of the 1994 U.S. Supreme Court decision in *Carbone v. Town of Clarkstown*, enforcement of the flow control provisions of Local Law No. 1 has been suspended. However, the licensing procedures remain in effect.

### **6.1.7 DISPOSAL OF NON-PROCESSIBLE WASTE AND BYPASS WASTE**

Disposal of waste rejected as non-processible at the scale house is the responsibility of the carter presenting the waste for disposal. Process rejects and otherwise acceptable waste ordered bypassed by the Agency due to the inability of the Facility to accept delivery will be disposed of at a designated disposal site. The currently designated disposal site Royal Carting Transfer Station in Hopewell Junction, New York. The Veolia ES Greentree Landfill in Kersey, Pennsylvania and the Seneca Meadows Landfill in Waterloo, New York will serve as the alternative bypass waste disposal sites. Carters will pay tipping fees to the Agency as if the waste had been accepted. The Agency will pay the tipping fee at the disposal site and will reimburse the carters for additional transportation costs.

The Agency may also divert waste from the Facility storage pit to a designated disposal site in order to maintain the pit inventory at or below permitted levels. This diverted waste will be disposed at the Veolia ES Greentree Landfill.

### **6.1.8 WASTE HANDLING DURING EMERGENCIES**

Acceptable waste is normally accepted at the Facility and dumped into the pit. In the event of an emergency, which shuts down the receiving facilities at the plant, or an event where solid waste cannot be accepted, the Agency will be notified that the plant can no longer accept waste. The Agency has agreements with alternate disposal sites for emergency bypass of waste. The Agency will notify the haulers that the Facility cannot accept waste and to use the alternate disposal site. Waste will be bypassed until the Facility can again accept solid waste.

## **6.2 WEIGH SCALE STATION**

The weigh station consists of one inbound scale, one outbound scale and a scalehouse. Each delivery vehicle will be weighed before entering and exiting the site unless computer stored tare weights are on record for that vehicle. Other vehicles entering or leaving the site, including those hauling residue, ferrous metal and other recovered materials, non-processible waste and bypassed waste will also be weighed.

The weigh scales will be open for the receipt of waste from 6:00 AM until 4:00 PM, Monday through Saturday, excluding the following six holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

The Agency may also request that the Operator accept special deliveries of solid waste with a 24-hour advance notice. The Operator is required to make a reasonable effort to accommodate receipt of such solid waste. Process residue, bypass wastes and recovered materials will be removed from the site only during normal operating hours of the weigh station.

### 6.2.1 WEIGH SCALE DESCRIPTION

The scalehouse is a single story structure located in the median between the inbound and outbound scales at the main entrance road to the Facility site.

The features of the scalehouse include:

- Sliding glass windows to allow the operator to communicate with drivers and pass out delivery tickets;
- Handicap access ramps; and
- Restroom facilities (with handicap provisions).

Each weigh scale is approximately 70 feet long and 10 feet wide and has a capacity of 60 tons. Bypass lanes are provided around the scales. The scales have been certified to meet accuracy requirements of the Dutchess County Director of Weights and Measures.

### 6.2.2 SCALE OPERATION

#### 6.2.2.1 STAFFING

The Agency is responsible for staffing and operating the weigh scales during all waste delivery hours. Scale operators are properly trained in the operation of the computer controlled weighing system. The Operator has the right to observe the scalehouse operation.

#### 6.2.2.2      EQUIPMENT

Each scale has eight load cells that transmit information to digital weight indicators inside the scalehouse, giving a digital readout of the weight on the scale. The weight indicator will automatically rezero after a vehicle leaves the scale. The indicators will be rezeroed after each transaction if zero is not displayed when no vehicle is present on the scale.

Both digital weight indicators are wired into a local computer with a video monitor and keyboard. This computer transmits data to a ticket printer in the scalehouse and to a remote terminal with a printer in the Administration Building. This remote terminal and printer are utilized for billing and accounting purposes.

The scale house is equipped with the following:

Telephone--Regular telephone service is provided.

#### 6.2.2.3      NORMAL OPERATIONS

At the start of each day, the scale operator enters the scalehouse and turn on the computer system and any other equipment not left in service overnight, prepare the printer, and check the equipment. The scale operator then notifies the shift supervisor that he is ready to receive solid waste. After the weighing transaction is complete, the scale operator will notify the truck driver, either through the local intercom system or through hand signals, to exit the scale. At the end of the day the scale operator sends reports to the accountant over the computer terminal and printer in the Administrative building or by portable computer disks.

Each vehicle is weighed before being emptied or loaded at the Facility. The date, time, account number, truck identification number, and truck gross, net and tare weights will be printed out on a weigh ticket. The ticket also includes the description and origin of the contents.

The driver must sign the ticket for the transaction to be valid. The driver is given a copy of the ticket at the conclusion of the transaction.

Vehicles regularly handling residue and non-processibles have their tare weights on record and, upon leaving the Facility, are weighed to determine net weights. Vehicles removing recovered materials are weighed in empty and again on the trip out once loaded with the materials.

#### 6.2.2.4      PROCEDURES DURING SCALE AND/OR COMPUTER FAILURE

The weigh scales are tested periodically for accuracy. If the scales do not meet accuracy requirements, the Agency will calculate an adjustment to all weighing records and service fees calculated since the previous test.

If one or both scales are inoperable, or the computer system fails, the scale operator will immediately notify the Agency Executive Director, who will without delay, notify the Facility Manager. The Agency Executive Director will take necessary measures to resolve the problem by contacting the equipment manufacturer or equipment service person.

If the computer system is down and the scales remain manually operable, the scale operator will make all entries on the weigh ticket by hand. Because recorded truck tare weights cannot be accessed, all vehicles will be required to be weighed in and out. A battery-powered calculator will be kept in the scalehouse to allow the scale operator to calculate the net weights. Copies of weight tickets will be issued to the drivers at the conclusion of weigh-out.

When one scale is operating, the working scale will be used to handle both inbound and outbound vehicles. A second scale operator will direct traffic at the scalehouse.

When both scales are inoperable but the computer system remains operable, the scale operator will estimate the quantities of materials being delivered or removed from the site based on truck type and volume. The scale operator will enter the estimated weights into the computer. These estimates will take the place of actual weight records during the period the scales are inoperable. If both scales are inoperable for an extended period, the Agency may provide for the use of an alternate scale facility.

If the scales and the computer fail, the scale operator will estimate the quantities of solid waste and other materials, and make all entries on the weight ticket manually, as described above.

### 6.2.3 MAINTENANCE

Agency Responsibilities - The Agency is responsible for maintaining the scale and computer equipment to ensure it is fully operational and that the accuracy is within the requirement of the Dutchess County Office of Weights and Measures and other state regulatory agencies. The Agency may enter into service contracts to calibrate and maintain all equipment. Other responsibilities of the Agency include cleaning up and general housekeeping inside the scalehouse. The Agency also provides other maintenance of the scale facility including cleaning, painting, repairs, and parts replacement.

Contractor Responsibilities - The Contractor is responsible for providing labor for daily cleanup of windblown litter at and around the scale facility.

## 6.3 AGENCY WASTE CONTROL PLAN

The Agency has instituted a control program to assure that only solid waste authorized to be received at the Facility is actually received and processed. The elements of this program are:

- A Facility Users Manual
- Posting of Warning Signs
- Visual Inspection of Vehicles
- Threat of License Revocation
- Service Agreement Provisions
- Agency Newsletter

The following is a description of the elements of the program.

### 6.3.1 FACILITY USERS MANUAL

A Facility Users Manual has been developed by the Agency to familiarize users of the Facility with the responsibilities of the County, the Agency, the plant operator, the private carters and the municipalities with respect to the use of the Facility. Section 4 of the manual describes the licensing program that has been established by the Dutchess County Department of Solid Waste Management. Delivery or attempted delivery of hazardous waste or of waste unsuitable for processing and unacceptable at the Facility is a violation of the conditions of the license. Repeated violations can lead to suspension or revocation of the license. Section 5 of the manual defines acceptable and unacceptable waste and specifically prohibits hazardous waste from being delivered to the Facility. The amount of household hazardous waste included in the normal deliveries of municipal solid waste will be minimized by instituting and publicizing a household hazardous waste cleanup and collection program in the areas served by the Facility. This section also sets up screening procedures for unacceptable wastes and procedures for removing unacceptable wastes from the tipping floor or from the storage pit. Section 9 describes the enforcement procedures instituted by the Commissioner of Solid Waste Management and the penalties for violations of license conditions.

### 6.3.2 POSTING OF WARNING SIGNS

The following sign has been posted at the entrance to the Facility site:

#### NOTICE

IN ACCORDANCE WITH FEDERAL REGULATIONS (40 CFR PART 261.4), THIS FACILITY WILL ACCEPT ONLY HOUSEHOLD SOLID WASTE AND NONHAZARDOUS WASTE AS DEFINED BY NEW YORK STATE (6NYCRR PART 371). ANY ATTEMPT TO DISPOSE OF HAZARDOUS WASTE AT THIS FACILITY WILL SUBJECT THE DRIVER AND THE OWNER OF THE VEHICLE TO CIVIL AND CRIMINAL PROSECUTION AND PENALTIES AS PROVIDED BY LAW.



### 6.3.3 INSPECTION OF VEHICLES

The Agency has the right to inspect all vehicles delivering solid waste to the Facility to insure that only acceptable waste is actually accepted. Primary screening of vehicles for unacceptable waste occurs at the Agency operated weigh scale. As vehicles pass over the scale, the scale operator asks the driver to identify the content of the vehicle. If the scale operator has reason to believe that the vehicle may contain unacceptable waste entry will be denied. If the operator suspects that the vehicle may contain unacceptable waste despite the driver's description of the contents, he may call the Facility operator and require that the contents be dumped on the tipping floor for further examination. See Appendix 6, Form 6-1, Inspection of Routine and Suspicious Loads or Appendix 6-2, Unauthorized Waste Form, both located at the end of this section. Vehicles must also pass a radiation detector, which will sound an alarm if any radioactive materials are carried on vehicles passing over the scale.

If the driver indicates that the contents are TDMW, he must submit a Regulated Medical Waste Treatment Certification (Form 47-06-1).

Attendant will ensure that the transporter of the TDMW has Health Validation Certificate (HVC) on file. He may accept Treated Medical Waste (TMW) once a HVC has been filed with the Agency.

A certain number of trucks are selected randomly for dumping on the tipping floor so that their contents can be examined before it is dumped into the pit. In addition to the random selection, all trucks carrying TDMW and trucks belonging to carters who have in the past attempted to deliver unacceptable waste may be required to dump their loads on the tipping floor. If the content is acceptable, the waste will be pushed into the pit by a front-end loader. If it is not, it will be loaded back into the delivering vehicle and ordered removed from the site.

Trucks carrying TDMW will be required to dump in specifically designated areas of the tipping floor, where the contents will be examined by representatives of the Agency and of Covanta Hudson Valley Renewable Energy LLC.. If both agree that the content is TDMW, the truck will be released and the TDMW transferred to the pit.

The dumping of the TDMW on the tipping floor must be conducted in a manner that minimizes contact with the waste. After or during dumping, a visual inspection should be undertaken to determine if unacceptable waste has been included. In such an occurrence, the NYSDEC should be notified and enforcement action taken against the Facility/hauler delivering such waste. For personnel health and safety considerations, the waste must not be removed, but processed immediately.

The final step in the inspection program is carried out by the crane operator, who observes the discharge of waste into the pit. If he notices that a truck is attempting to discharge unacceptable waste, he can contact the tipping floor attendant by speaker telephone, instruct him to stop the discharging of the waste, and contact the shift supervisor for a decision as to the acceptability of the waste. The crane operator also examines waste in the pit during his mixing and charging operations. If he notices any unacceptable waste during these operations, he will remove such waste from the pit and deposit it in special containers at the east end of the pit for removal as process rejects.

#### 6.3.4 SERVICE AGREEMENT PROVISIONS

The Service Agreement between the Agency and the operator, Covanta Hudson Valley Renewable Energy LLC, defines Covanta Hudson Valley Renewable Energy LLC's responsibilities with respect to waste flow control. Prior to discharge into the storage pit, waste control is the Agency's responsibility. Once the waste is in the pit, it is under Covanta Hudson Valley Renewable Energy LLC control, and Covanta Hudson Valley Renewable Energy LLC is responsible for processing and disposal, including any violations of environmental regulations caused by incineration of unacceptable waste and any damages to the Facility caused by such processing. Covanta Hudson Valley Renewable Energy LLC has the right and the responsibility to refuse to accept unacceptable waste, making reasonable efforts to exercise this right before the vehicle delivering such waste departs from the tipping area. If Covanta Hudson Valley Renewable Energy LLC refuses to accept waste passed by the Agency, the burden of proof is on Covanta Hudson Valley Renewable Energy LLC. Wrongfully refused waste will be treated the same as bypassed waste. The Service Agreement requires Covanta Hudson Valley Renewable Energy LLC to store refused waste in a neat, clean and safe manner, and to have it available for removal by the Agency within 48 hours of receipt.

The Service Agreement also requires Covanta Hudson Valley Renewable Energy LLC to provide appropriate instruction to its employees, including the crane operator and the tipping area attendant, to familiarize them with the physical appearance and other characteristics of materials that may constitute unacceptable waste.

#### 6.3.5 PERSONNEL TRAINING

Facility operating personnel are required to successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the Facility's compliance with the requirements of the permits to operate. A person trained in waste management procedures directs this program.

The training program is designed to ensure that Facility personnel are able to operate and maintain the plant in a safe condition.

Additionally, the training program is designed to ensure that Facility personnel are able to respond effectively to emergencies by familiarizing them with emergency detection procedures, equipment, and systems, including procedures for using, inspecting, repairing, and replacing Facility emergency and monitoring equipment.

The forty-hour Basic Training for Operations and Maintenance Staff outline (see Section 3.1, Personnel Training Narrative) gives the training subjects.

On-the-job training is also a large part of the required program to ensure all personnel receive the necessary hands-on instruction required.

Equipment suppliers and service companies which offer training programs will be requested to present these programs to plant personnel for additional training.

#### 6.3.6 REPORTING REQUIREMENTS

The Agency will report the receipt and disposal of TDMW, unprocessable and/or unauthorized wastes quarterly. Receipt of hazardous or unauthorized waste will be reported immediately (phone or e-mail) and in writing within 3 business days. Amounts of process reject and waste bypassed due to Facility outages are also reported quarterly.

## 6.4 WASTE INVENTORY MANAGEMENT

The Facility maintains an MSW inventory in the storage pit to insure that waste is available at all times for Facility operation. This inventory is monitored to ensure that the quantity does not exceed regulated limits.

Although MSW is a heterogeneous fuel, every effort is made to minimize variations in the fuel fed to the combustion units. This achieved by the systematic feeding and rotation of the waste in the storage pit. The pit is divided into zones and waste is fed to the combustion units from a given zone in accordance with the current rotation plan.

Taking MSW from one zone and depositing it in another until the zone is effectively cleaned out achieves rotation. This rotation and feeding plan is also used to control wet waste during periods of inclement weather. Wet waste is set aside in a designated area of the pit and allowed to dry out as much as possible prior to being fed to the combustion units. This drying process helps achieve good burnout and reduces the volatile content of the ash.

The Service Agreement between the Agency and the Operator sets the maximum weekly delivery of MSW that the Operator must accept at 3,300 tons. The permitted rate of the Facility is 3,150 tons per week. This balance of Facility burn rate versus deliveries controls waste inventories. To ensure that the inventory does not become too large, the operating personnel estimate the MSW inventory level each day. The following steps are to be taken by the Facility Operator when the MSW inventory exceeds 3,150 ton:

1. The Operator will notify the Agency of the pit inventory level and of any operating conditions at the Facility that would affect the normal processing rate of the inventory.
2. The Agency will ensure that contracts are in place for the transfer and/or by-pass of waste.
3. The chosen transfer-hauling contractor will be informed of the potential need to transfer out waste to ensure that trucks are available on short notice.
4. If inventories continue to increase, MSW will be transferred out of the Facility. Inventory level and the processing rate at the Facility will govern the rate of transfer.

The above projected procedure will ensure that the waste inventory is controlled and that the inventory will not exceed 4,000 tons.

## **SECTION 6.0**

## **APPENDICES**

## **APPENDIX 6-1**

### **FORM 6-1 - INSPECTION OF ROUTINE AND SUSPICIOUS LOADS**

**FORM 6-1**  
**COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC**  
**INSPECTION OF ROUTINE AND SUSPICIOUS LOADS**  
**6 NYCRR 360-3.3 (j) (1) (v) (a) and (b)**

Date \_\_\_\_\_ Time \_\_\_\_\_

Procedure: A minimum of one random inspection will be done each day of waste receiving. Five (5) Individual carters will attempt to be inspected weekly. Suspicious loads will be inspected at any time.

Truck Identification:

Company Name: \_\_\_\_\_

Truck or Plate Number: \_\_\_\_\_

Driver's Name: \_\_\_\_\_

Quality of Waste (circle one):

**ACCEPTABLE:** No further entry required except signatures.

**UNACCEPTABLE WASTE:** (Circle one below)

**NON-PROCESSIBLE WASTE**

Approximate amount of non-processible waste (pounds or tons): \_\_\_\_\_

What was done with the non-processible waste? (Check one)

1. Reloaded into truck : \_\_\_\_\_
2. Will be picked up by carter : \_\_\_\_\_
3. Put into reject container : \_\_\_\_\_
4. Other: \_\_\_\_\_

Note: #1 and #2 above require supervisor to contact the DCRR Agency scalehouse operator at time of rejection.

**UNAUTHORIZED WASTE** Contact Shift Supervisor via radio or P.A. phone.

Examples below that are listed under the solid waste permit.

- Liquid Waste
- Explosives
- Regulated medical waste not following procedures
- Sewage sludge <20% solids
- Septage
- Hazardous wastes a per part 371
- Empty drums that contained hazardous waste
- Any waste regulated by 6NYCRR Part 364

If any items are discovered during inspection, then continue to complete the back of this form.

Auxiliary Operator's (tipping Bay) \_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

**APPENDIX 6-2**

**FORM 6-2 - UNAUTHORIZED WASTE FORM**



**FORM 6-2**  
**COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC**  
**UNAUTHORIZED WASTE FORM**  
**6 NYCRR 360-1.14 (e) (2)**

Procedure: Shift Supervisor after further determination that the waste is unauthorized shall contact the Operations Manager, Facility Manager and Operations Manager for the Agency for further directions. If the waste poses a danger to the employees or the community, the contingency plan will be followed.

Type of Waste: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Approximate amount of unauthorized waste (pounds or tons) \_\_\_\_\_

What was done with the unauthorized waste?

Disposal Method \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Disposal Location \_\_\_\_\_

\_\_\_\_\_

Disposal Date \_\_\_\_\_

Shift Supervisor \_\_\_\_\_

Print Name

\_\_\_\_\_

Signature

Forward this document to the personnel responsible for environmental compliance. This information is to be summarized in the annual report for the New York State DEC.

## **7.0 CONTINGENCY PLAN**

### **7.1 EMERGENCY RESPONSE PLAN**

#### **7.1.1 PURPOSE (OBJECTIVES)**

The purpose of this Emergency Response Plan (Plan) is to minimize hazards to human health and the environment from fires, explosions and any spill or material release at the Facility. In the event of an emergency situation, the provisions of this plan must be carried out immediately.

#### **7.1.2 SCOPE**

##### **7.1.2.1 DESCRIPTION OF PLAN (BACKGROUND INFORMATION)**

This Plan describes the actions Facility personnel must take in response to an emergency situation. An Emergency Coordinator position has been developed so that one person who is thoroughly familiar with the Facility and its operation can coordinate the response to any emergency situation. Emergency response procedures have been developed for the Emergency Coordinator to follow. Training in emergency procedures and equipment will be provided for all Facility employees. An Evacuation Plan has been developed in case of a major emergency. Lists of emergency response agencies, emergency personnel and emergency equipment have also been included in this Plan.

##### **7.1.2.2 AMENDMENTS TO PLAN**

The Plan must be reviewed and amended, as necessary, whenever any of the following events occur:

- The Facility permit is revised;
- The Plan fails in an emergency;
- The design, construction, operations, maintenance or other circumstances of the Facility change in a way that materially increases or decreases the potential for fires,

explosions, or releases of hazardous materials or constituents, or changes the response necessary in an emergency;

- The list of emergency personnel changes;
- The list of emergency equipment changes; or
- Whenever the plan fails to provide information to respond to an emergency.

#### 7.1.2.3      LOCATION OF PLAN

One copy of this Plan and all revisions will be maintained at each of the following locations:

- Dutchess County Resource Recovery Agency Administration Building;
- Facility Operator's Administration Building;
- Control Room;
- Scalehouse;
- Town of Poughkeepsie Police Department;
- Arlington Fire District Headquarters;
- Dutchess County Department of Health;
- NYSDEC Region III office; and
- Any other suitable locations to be determined.

### 7.1.3      EMERGENCY COORDINATOR

#### 7.1.3.1      IDENTIFICATION

The Emergency Coordinator is responsible for coordinating all emergency response measures. The Emergency Coordinator will have the authority to expend funds and direct employees to implement the emergency response procedures. The Emergency Coordinator must be thoroughly familiar with the Plan, the physical layout and operation of the Facility and the location of all records within the Facility.

The Facility Manager will act as the primary Emergency Coordinator. The Operations Manager and the Safety Coordinator will act as alternates. The on-shift supervisor will act on behalf of the above when these persons are not on site.

### 7.1.3.2      RESPONSIBILITIES

- The Facility Manager is responsible for performing as the Emergency Response Coordinator. For a complete list of the responsibilities and duties see Appendix 7-C-1.
- The Operations Manager is responsible for performing as the Emergency Response Coordinator in the event that the Facility Manager is unavailable. For a complete list of the responsibilities and duties see Appendix 7-C-2.
- The Safety & Environmental Coordinator is responsible for performing as the Emergency Response Coordinator in the event that both the Facility Manager and Operations Manager are unavailable. For a complete list of the responsibilities and duties see Appendix 7-C-2.
- The Shift Supervisor is responsible for performing as the Emergency Response Coordinator in the event that the Facility Manager, Operations Manager or Safety & Environmental Coordinator is unavailable. For a complete list of the responsibilities and duties see Appendix 7-C-3.
- Plant Management is responsible for effective implementation of the program.
- As noted in Appendix 7-C-4, Covanta Hudson Valley Renewable Energy LLC (Facility Operator) is also responsible for assisting in preparing and reviewing various incident reports, reviewing and approving any press releases concerning any incident and determining if a spill or release is reportable.

### 7.1.3.3      PROCEDURES FOR EMERGENCY REPORTING

The employee discovering the emergency shall notify the control room by radio, plant public address system or inter phone system. The control room will notify the Emergency Coordinator of the emergency. Upon notification of an emergency situation, the Emergency Coordinator must immediately assume command of the situation. He must assess the hazard to determine whether:

- Outside assistance is needed;
- Evacuation of the site or nearby areas are required; and
- The Facility should cease operations.

After assessing the situation, the Emergency Coordinator must supervise and coordinate control measures. If the emergency situation does not require outside assistance, the Emergency Coordinator will oversee appropriate actions (hazard containment, fire fighting, plant shutdown, waste removal, etc.), ensure that the incident does not spread to other areas, and determine whether control of the situation has been attained. If the situation requires outside assistance, the Emergency Coordinator must notify the appropriate state and local agencies and the Agency, coordinate control measures with Facility personnel, and if necessary, implement evacuation procedures. Appendix 7-A contains emergency telephone numbers and Appendix 7-B contains emergency shelters, assembly areas, evacuation, accounting and command center information.

Following attainment of control, the Emergency Coordinator must organize cleanup measures and document the incident. Cleanup measures include the proper treatment, storage and disposal of wastes generated by the emergency and the cleaning, inspection and replenishment of emergency equipment. Documentation procedures include notifying the appropriate Federal, state and local agencies of the incident, conducting an investigation to determine the cause of the incident, preparing a written report of the incident and revising the Emergency Contingency Plan. The Emergency Coordinator must report any incident that requires implementation of this contingency plan in accordance with Part 360-3.4(g) (4) (viii).

The time, date and details of any incident that requires implementing the contingency plan must be noted in the operating record and in the quarterly report. A written report on the incident must be submitted within 15 days of the incident to both the NYSDEC central office and the regional office. The report must include:

- The name, address and telephone number of the operator and the Facility;
- The date, time and type of incident (i.e., fire, explosion, etc.);
- The type and quantity of materials involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable;

- The estimated quantity and disposition of solid waste, liquids, or material recovered that resulted from the incident; and
- The procedures or equipment available to prevent a recurrence of the reported event.

## **7.2 SPILL PREVENTION CONTROL OF COUNTERMEASURE PLAN (SPCC)**

### **7.2.1 INTRODUCTION**

#### **7.2.1.1 SITE DESCRIPTION**

The Facility is a power generation facility, which is permitted to combust 456 tons per day of MSW to produce 9.2 MW of electrical power. The Facility consists of a tipping floor, waste storage pit, two identical combustor trains each with its own air pollution control equipment, cooling tower, residue handling building and electrical sub-station. The Facility initiated combusting MSW in 1985 under the operation of Pennsylvania Engineering Company. In October 1988, Dutchess Resource Management, Inc. (subsidiary of Westinghouse Electric Corp.) took over operations. Operations were later taken over by Montenay Dutchess LLC in 1998 and by Covanta Hudson Valley Renewable Energy LLC in 2009.

The Facility site is located on the east bank of the Hudson River in the town of Poughkeepsie, approximately 4 miles south of the Mid-Hudson Bridge. The site, identified in Figure 1.1-1 (General Site Layout) in Section 1, consists of approximately 11.5 acres of land and is part of a 48.5-acre parcel of land owned by the Agency, the owner of the Facility. The portion of the parcel not required for construction of the Facility functions as a buffer between the Facility and residential areas to the east. The nearest residential area is about 1,500 feet east of the site and is well screened by the wooded ridge. There are no private residences on Sand Dock Road, the immediate access road to the Facility. Land use in the immediate vicinity of the site is industrial and conforms to the use for a resource recovery facility.

The site is near the centered of waste generation of the Service Area. Access to the site is from US Route 9, the main north-south thoroughfare of western Dutchess County, via IBM Road and Sand Dock Road. The site is approximately ½ mile from US Route 9. IBM Road is a four-lane roadway under County maintenance used primarily for access to the IBM complex. The County maintains Sand Dock Road.

The Facility originally was under contract to sell a portion of the steam it produced to the IBM complex located approximately 1,200 feet north of the site. It no longer does; all steam is used to generate electricity which is sold to central Hudson, however, the option exists to either sell steam to IBM or to generate electricity, depending on financial factors. The delivery point for electrical power is a distribution substation located at the intersection of IBM Road and has been extended along Sand Dock Road to the site. A sewer connection runs along Sand Dock Road to the entrance to the Arlington Sewage Treatment Plant.

All storm sewers, inlets and roof drains are connected to either one or two stormwater Outlets. An existing pond that is located adjacent to the Agency's office has an overflow pipe that is also connected to one of the stormwater outfalls. The locations of these outfalls are given in Figure 7.2.1.1-1.

#### 7.2.1.2      APPLICABILITY OF THE SPCC REGULATION TO THE DUTCHESS COUNTY SITE

Section 311 (j) (1) (C) of the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) authorized the issuance of regulations establishing procedures, methods, equipment and other requirements to endeavor to prevent the discharge of oil and hazardous substances in the event of a spill to the navigable water ways of and/or tributaries of navigable water ways of the United States from vessels, onshore facilities and offshore facilities. Accordingly, the Administrator of the Environmental Protection Agency developed and promulgated Oil Pollution Prevention Regulations on December 11, 1973 in 40 CFR Part 112. These regulations require owners and operators of onshore and offshore non-transportation related facilities to develop and implement Spill Prevention Control and Countermeasure (SPCC) plans to prevent the discharge into the navigable waters of the United States or adjoining shorelines.

The Facility is a non-transportation-related onshore facility, which stores a quantity of oil for use as diesel fuel and machine lubrication. The aboveground storage capacity is greater than 1,320 gallons, and there is one oil storage tank in excess of 660 gallons. Due to the location and quantity of oil products stored, an SPCC plan is required. There is no underground oil storage at the Facility.

# Montenay Dutchess LLC Site Layout

Arlington Sewage  
Treatment Plant

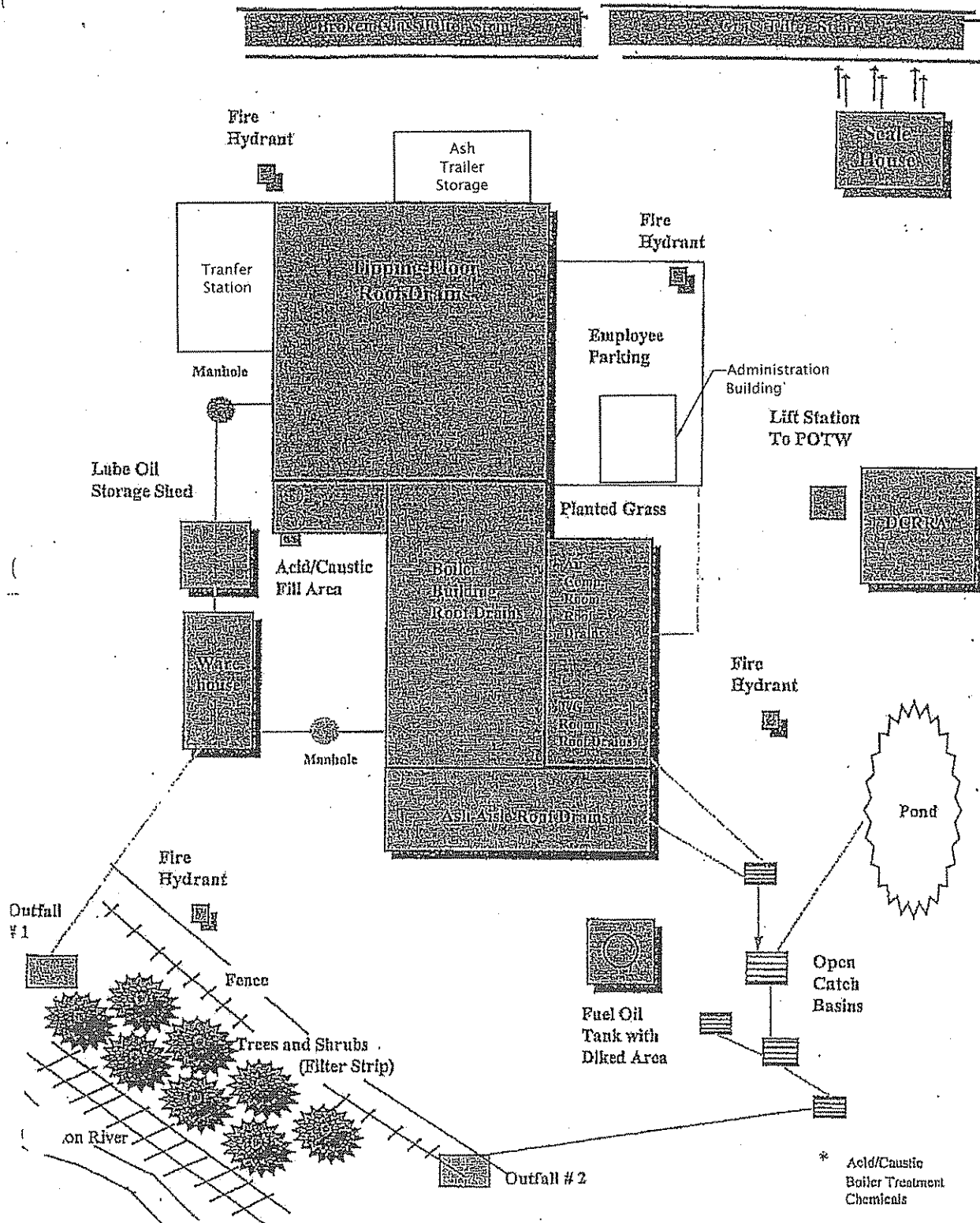


Figure 7.2.1.1-1



### 7.2.1.3      HISTORY OF SPILLAGE

There have not been any reportable spill incidents of petroleum products at this facility. Management commitment to the Plan's implementation is indicated by the certification provided in Appendix 7-7-1.

## 7.2.2      SPILL CONTAINMENT AND COUNTERMEASURES

### 7.2.2.1      SPILL POTENTIAL

Lubricating oils are stored in the Lube Oil Storage Building located on the southwest side of the Boiler Building (see Figure 7.2.1.1-1, above). This building is actually 8'x19'x8' metal storage shed on a skid. The inventory in the Lube Oil Storage Building typically consists of the following:

- 4 55-gallon drums of lube oil/turbine oil;
- 2 to 3 50-lb buckets of chain and cable lubricant;
- 1 100-lb bucket of chain and cable lubricant;
- 6 cases of oil & grease emulsifier;
- 12 to 16 6-gallon pails of gear lube and pump oil;
- 8 120-lb pails of gear lube and pump oil;
- 2 35-gallon drums of pump oil; and
- 1 to 2 cases of antifreeze

Also, a 55-gallon drum of waste oil is stored in this building. All deliveries of material that are stored in this location are received directly at the building.

In addition to the lube oil storage building, the area near the boiler water treatment system in the boiler building is used to store some materials. These generally include the following:

- 2 55-gallon drums of transmission oil;
- 1-55-gallon drums of glycol;
- 2 35-gallon drums of synthetic vinegar; and
- 2 55-gallon drums of turbine oil.

Boiler chemicals are stored in bulk containers near the boiler water treatment system in the boiler building.

One electrical transformer located at the Facility is an oil-cooled type. The transformer is contained within a containment dike designed to hold the transformer's maximum capacity of oil.

Because the storage tank and the drums are contained the maximum spill volume possible would be approximately 6000 gallons, based upon a catastrophic discharge of oil from a delivery vehicle.

#### 7.2.2.2      SPILL CONTAINMENT

##### FUEL OIL STORAGE TANK

The 10,000-gallon storage tank is used to supply fuel oil to the Facility's front-end loaders. It is completely surrounded by an impervious concrete dike capable of holding in excess of 14,000 gallons (19'8x19'8x5'). The diked area is drained of rainwater by placing a portable submersible pump into the square drainage culvert located midway along the east wall of the dike. The rainwater is then pumped to the equalization tank located approximately 15-20 feet north of the fuel oil tank. In the event of an oil leak/spill into the dike, the culvert has a 3-inch hose coupling located just outside the dike wall that can be connected to a pump for removal of liquid.

##### LUBE OIL STORAGE BUILDING

The area immediately surrounding the receiving area has some areas, which are gravel, and some which are paved. If a spill should occur, the release would not impact the environment as the material would either sink into the gravel or remain on top of the pavement. There are no storm drains in the immediate area that the material could get into. Any spill would be collected, containerized, and disposed of at an approved facility. A list of emergency equipment and sorbent materials kept in inventory and their locations are presented in Appendix 7-7-2.

## TURBINE LUBE OIL TANK

The turbine has a lube oil pump that includes an integral storage tank that contains approximately 2000 gallons of lube oil. There is no secondary containment associated with the tank. Any catastrophic failure of the tank would release the oil to the turbine room floor. A floor drain is located within the room that drains to the Facility's wastewater sump, which is connected to the plant's wastewater treatment system. The turbine room is equipped with spill prevention control devices that would be adequate to control relatively small, incidental spills.

### 7.2.2.3      SECURITY

The site property is located within an eight (8) foot high chain link security fence topped with three (3)-strand barbed wire on inward slanting supporting arms. There is only one active access area to/from the Facility. Control room personnel monitor access of both delivery vehicles and personnel to the Facility 24-hours per day by using a camera mounted on top of the main building. The camera is equipped with a zoom lens and 360 degrees directional movement capabilities. After normal working hours, the facility also employs a security keypad, which requires the inputting of the proper numerical code. Also, cameras located at the entrance and exit of the scale house monitors vehicle activity. Control room personnel can open and close the gate after verification that the person requesting entrance is authorized to be on site. One other camera located on the tipping floor and at the Agency's parking lot provides additional security monitoring. All visitors must obtain clearance prior to entry to the Facility. These measures provide reasonable assurance that only those persons with business shall have access to the site. Since the Facility is manned 24 hours per day, there is little chance any unusual activity will go unnoticed.

Artificial lighting at the site is generally adequate to insure that any spill occurring during hours of darkness, or acts of vandalism, would be visible.

## 7.2.3 SPILL CONTINGENCY PLAN IMPLEMENTATION

### 7.2.3.1 INSPECTION AND RECORD KEEPING

To ensure the integrity of storage systems, all storage tanks and the retention basins are inspected monthly. This inspection consists of a formal (logged) visual check of each area for the following, as appropriate: oil leakage or accumulated rainwater in diked areas; and deterioration of diked areas, tanks, piping, foundations, and appurtenances. The outside of the tanks and barrels are visually inspected for any deterioration or abnormal condition. Loading and unloading areas, as appropriate, are also checked for spillage, and the presence of spill supplies is noted. Any problems will be reported to the Environmental Coordinator for correction and documented on the Monthly Tank inspection Form. Records for all formal inspections performed will be signed by the inspector and retained at the site in conjunction with the SPCC for a period of at least three years. The responsibility for ensuring proper record retention is assigned to the Facility's Environmental Coordinator. A copy of a blank inspection form is presented in Appendix 7-7-3.

### 7.2.3.2 PERSONNEL TRAINING

The personnel who operate and maintain the various equipment and processes at the Facility are trained in their job functions. Before they assume full responsibilities of a particular position, they must demonstrate that they can discharge the duties assigned to them.

For spill prevention, this level of training provides familiarity with the equipment, which enables the individual to recognize potential problem situations before they develop into a spill situation. In addition to identifying potential spill situations through on-the-job experience gained during the time of his/her employment, the individual is able to take measures to avert a spill incident or minimize its impact. To assist in the training effort, the plant has developed a set of detailed operating procedures.

Training in both the requirements of this program and emergency reporting procedures shall be accomplished annually. This training shall be documented and subjected to the record keeping requirements of this program.

Tank filling and unloading are conducted according to good operating practices, incorporating the practices presented in Appendices 7-7-4 and 7-7-5. The Emergency Coordinator or his designee is responsible for oil spill prevention at the Facility. He is responsible for ensuring that employees who handle oils have been trained in oil handling, spill prevention, and basic response and internal notification procedures.

#### 7.2.3.3      PERSONNEL ASSIGNMENTS

It is the duty of all site personnel to report to Facility management a pollution incident or potential hazard to the extent, which they are recognized. Procedures for notifying supervisory personnel regarding a pollution incident or potential spill are documented in the Emergency Contingency Plan (ECP). A list of emergency response coordinators is in Appendix 7-A-1 and their qualifications in Appendix 7-A-2.

Should an oil or chemical spill occur on the premises the following Covanta Hudson Valley Renewable Energy LLC personnel will be available if called upon for the response effort:

Maintenance Department - 2

Operation Department - 2

In the event that outside assistance is necessary, Covanta Hudson Valley Renewable Energy LLC, would enter into a contract with one of the local spill response vendors listed in Appendix 7-7-6. This is not an exhaustive list, however, it is representative of the available vendors in the area.

#### 7.2.3.4      SPILL PROCEDURE

Copies of the ECP are located in the Control Room, Environmental Coordinator's office and the locations listed in section 7.1.2.3. The ECP includes emergency response procedures, reporting procedures, and assigns site management responsibility for insuring that these requirements are met. Each procedure is reviewed and, if necessary, revised annually. This ensures that the procedure reflects the current status of the plant and keeps pace with changing technology in spill control. A complete set of Material Safety Data Sheets (MSDSs)

are maintained in the Control Room, the Chemistry Lab, the Maintenance Shop, and the Environmental Coordinator's office for each type of chemical or substance that is likely to be encountered.

Physical and mechanical cleanup would be done by use of pumps (including a submersible pump), forklift, crane, broom, mops, rakes, and other tools, as appropriate.

Chemical cleanup of potential spills could be accomplished by use of sorbent, gelling agents, foams, volatilization, and other methods. Materials will be stored on-site for use in cleaning up the various types of spills, which could occur. Examples of these materials are listed below:

- Oil Dry
- Spill Pillows or Polyzorb (shredded polypropylene)
- Foamlike sand - for acids (except HF), caustics, and solvents
- Neutrasorb - for acids
- Neutrakit - for caustics
- Solusorb - for flammables
- Hazorb (sodium silicate) - for organic acids and caustic liquids

#### 7.2.3.5      NOTIFICATION PROCEDURES

If a reportable oil spill has occurred, the employee discovering the spill will report it to the Control Room. The employees will contact the Shift Supervisor who will contact the Plant Manager who will perform the necessary agency notifications, should a spill of oil reach surface water. Required notifications are as follows:

NYSDEC                      1-800-457-7362 (24 hrs)

In the case of a spill reaching the Hudson River, also contact:

United States Coast Guard (local)      (718) 354-4119 (24 hours)

Notification to the NYSDEC shall provide all of the following information, which is available:

- The name of the person making such a report and his relationship (agent, employee, etc.) to any person (corporation, company, etc.) that might be responsible for causing such discharge.
- The time and date of the discharge.
- The probable source of the discharge.
- The location of the discharge, both geographic and in relation to bodies of water.
- The type of petroleum discharged.
- Possible health or fire hazards resulting from discharge.
- The amount of petroleum discharged.
- All actions, which are being taken or will be taken to clean up and remove the discharge.
- The personnel presently on the scene.
- Other Government agencies, which have been or will be notified.

#### 7.2.3.6      REPORTING FORM

Forms used to provide information regarding responses to emergency situations are located in the Appendices located at the end of this section. The forms are:

Form	Appendix
Fire Prevention Inspection Report	7-7-7
Fire Extinguisher Report	7-7-8
Plant Fire Log	7-7-9

#### 7.2.3.7      SPCC PLAN UPDATES

Review and evaluation of SPCC Plans are required at least once every 5 years. Additional requirements of 40 CFR 112 pertinent to the Facility are as follows:

- All SPCC plans and any amendments must be certified by a registered professional Engineer (see Appendix 7-7-10). Minor administrative modifications to the plan, such as changes in names or telephone numbers do not constitute amendment of the plan.
- A complete copy of the Plan must be maintained at the Facility. Since the plant is normally attended at least 8 hours per day, the SPCC Plan must be made available to the UPSEPA Regional Administrator for on-site review during normal working hours.

40 CFR also requires the amendment of SPCC Plans by owners or operators according to the following schedule:

- Within 6 months of a change in Facility design, construction, operation or maintenance that materially affects the Facility's potential for discharge of oil into a water body.
- As appropriate, within 6 months after completion of a three year review of the Plan.

Appendix 7-7-11 contains the required Certification of the Applicability of Substantial Harm Criteria, which documents the Facility's exemption from Oil Pollution Act requirements.

The owner or operator of a facility may also be required to amend an SPCC Plan by order of the Regional Administrator if the facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event or discharges oil in harmful quantities in two spill events within a 12-month period. Under these spill conditions, the owner or operator shall submit the appropriate reporting information in writing to the United States Environmental Protection Agency (USEPA) and the NYSDEC for their review, within 60 days from the time the event(s) occurred.

### **7.3 REPORTING FORMS**

The following forms, located in the Appendices at the end of this section, are used to provide information regarding responses to emergency situations:

Form 7-7-7	Fire Prevention Inspection Report
Form 7-7-8	Fire Extinguisher Report
Form 7-7-9	Plant Fire Log



## **7.4 RADIATION MONITORING PLAN**

Incoming vehicles carrying TDMW will be monitored for radiation. Any vehicle exceeding the present limit will not be permitted to discard its contents at the Facility. The scale house is equipped with a Ludlum Model 300 radiation alarm meter. The sensor for the meter is mounted on the outside of the scale house over the scale for incoming trucks. The meter has a range of 8-500,000 K counts per minute and can be set to sound an alarm for any predetermined level of radiation. The system will be calibrated to identify any radioactive materials at or above 500 UCI, and an audible and visual alarm will be automatically activated upon detection of the material.

In addition, the calibration and preventive maintenance schedule recommended by the manufacturer will be followed. The manufacturer's recommended schedule will be integrated into the Facility's computerized preventive maintenance scheduling program. The detection system will be activated upon arrival of a truck carrying TDMW. The truck will be required to stop outside the detector area for approximately 60 seconds to allow the detection system to establish an average background count. The driver will then be instructed to proceed slowly through the detection system. If the alarm is triggered during this pass, a second pass will be attempted to verify the alarm. If the alarm is triggered again the truck will be directed to a holding area away from normal traffic flow and, the originator will be contacted via telephone to arrange for disposition of the load. NYSDEC will also be contacted if the alarm is triggered a second time.

Incoming vehicles carrying TDMW will be monitored for radiation. Any vehicle exceeding the preset limit will not be permitted to discharge its content at the Facility.

## **SECTION 7.0**

## **APPENDICES**

## **LIST OF SECTION 7.0 APPENDICES**

- 7-A Emergency Phone Numbers/Emergency Notification List
- 7-B Emergency Shelters, Assembly Areas, Evacuation, Accounting, and Command Center
- 7-C Responsibilities of:
  - 7-C-1 Emergency Response Coordinator
  - 7-C-2 Operations Manager and Safety & Environmental Coordinator
  - 7-C-3 Shift Supervisor on Duty
  - 7-C-4 Covanta Hudson Valley Renewable Energy LLC
- 7-D Reporting Requirements
- 7-E Specific Emergency Procedures for:
  - 7-E-1 Spills and Releases
    - 7-E-1A Chemical Spills
    - 7-E-1B Petroleum Spills
  - 7-E-2 Fire or Explosion
  - 7-E-3 Medical Emergencies
  - 7-E-4 Bomb Threat
  - 7-E-5 Inadequately Treated Medical Waste
  - 7-E-6 Receipt of Unauthorized/Hazardous Waste
  - 7-E-7 Community Disturbances
  - 7-E-8 Reentry Planning
- 7-F Fire Extinguishers, Fire Hoses Locations and Exit Routes
- 7-G Community Right to Know and SARA Title III Reporting

Appendix 7-A - Supplement  
Emergency Personnel

Appendix 7-B - Supplement  
Appendix 7-B-1A - Evacuation Routes  
Appendix 7-B-1B - Emergency Equipment Description

7-7 – Supplement to Appendix 7-E – Spill Prevention Control and Countermeasure Plan

- 7-7-1 Management Approval of SPCC Plan
- 7-7-2 Emergency Equipment and Sorbent Materials Spill Prevention Control and Countermeasure (SPCC) Plan
- 7-7-3 Monthly Tank Inspection Form
- 7-7-4 Covanta Hudson Valley Renewable Energy LLC - Operating Procedure - Unloading Diesel Fuel
- 7-7-5 Covanta Hudson Valley Renewable Energy LLC - Fuel Oil Transfer Procedure
- 7-7-6 Potential Spill Clean Up Contractors
- 7-7-7 Fire Prevention Inspection Report
- 7-7-8 Fire Extinguisher Report
- 7-7-9 Plant Fire Log
- 7-7-10 Engineer's Certification
- 7-7-11 Certification of Applicability of Substantial Harm Criteria

**APPENDIX 7-A**

**EMERGENCY PHONE NUMBERS  
EMERGENCY NOTIFICATION LIST**

# **APPENDIX 7-A** **EMERGENCY PHONE NUMBERS** **EMERGENCY NOTIFICATION LIST**

RESPONSE UNITS	TELEPHONE NUMBER
----------------	------------------

General Emergency .....	<b>911</b>
Arlington Fire Department .....	(845) 471-1313
Dutchess County Health Department	
Joan Carter, Radiological Specialist .....	(845) 486-3535
William S. Capowski, Director of Environmental Health Services .....	(845) 486-3472
Howard Gonia, Senior Public Health Sanitarian .....	(845) 486-3536
24-Hour Emergency Line .....	(845) 431-6465
New York State Department of Environmental Conservation	
Ken Brezner, Regional Solid and Hazardous Materials Engineer .....	(845) 256-3179
Officer Hodor, Conservation Officer.....	(845) 483-9672
24-Hour Emergency Spill Reporting Line.....	(800) 457-7362
Dutchess County Office of Disaster Preparedness .....	(845) 486-2080
Town of Poughkeepsie Police Department .....	(845) 485-3666
New York State Police .....	(845) 298-0398
Vassar Brothers Hospital .....	(845) 454-8500
St. Francis Hospital.....	(845) 471-2000
National Response Center(USEPA).....	(800) 424-8802

## Emergency Response Coordinator and Alternates

	<u>Work</u>	<u>Home</u>	<u>Pager</u>	<u>Cell Phone</u>
Roy Chance (FM)	Ext. 128	635-4228	N/A	845-656-5644
Jack McCarthy (OM)	Ext. 144	914-962-6026	N/A	914-320-0089
Dan White (S&EC)	Ext. 126	876-7677	465-5949	N/A
Shift Supervisor	Ext. 133			
Control Room Emergency Phone		(845) 462-1046		
DCCRA Scale House		(845) 462-6022		
Covanta Energy Corporate Office		973-882-7282		

## **APPENDIX 7-B**

**EMERGENCY SHELTERS, ASSEMBLY AREAS,  
EVACUATION, ACCOUNTING, AND COMMAND CENTER**

**APPENDIX 7-B**  
**EMERGENCY SHELTERS, ASSEMBLY AREAS,  
EVACUATION, ACCOUNTING, AND COMMAND CENTER**

*Emergency Assembly Area*

The Emergency Assembly Area will be in front of the main doors to the boiler building. In the event that this area is unsafe or unavailable, the alternate Emergency Assembly Area will be the parking lot of the agency building.

*Emergency Shelters*

In the event such as a tornado or for any other reason that it is deemed necessary to go to an Emergency Shelter, the bottom floor of the concrete enclosed east stairwell shall serve as such. In the interest of avoiding over crowding, the first section of stairs and half landing can be used for this purpose also.

*Emergency Evacuation Routes*

The enclosed stairwells will serve as the emergency exits for all levels of the Boiler Building. Personnel located in the Administration Buildings will exit using the nearest outside doorway. For more of detailed directions, see attached site prints.

*Emergency Command Center*

The Emergency Command Center will be the Control Room. In the event that the Control Room is not available, the alternate Emergency Command Center shall be the Administration Building.

*Personnel Accountability*

The Shift Supervisor on Duty shall account for all Operations personnel. The Maintenance Superintendent shall account for all maintenance personnel, contractors, and visitors. The Facility Controller will account for all Administrative personnel. The Scalehouse Attendants will account for all haulers on site and will prevent any hauler from entering the building during an emergency.

**APPENDIX 7-C**  
**RESPONSIBILITIES**



**APPENDIX 7-C-1**

**EMERGENCY RESPONSE COORDINATOR**

**Appendix 7-C-1**  
**RESPONSIBILITIES**  
**OF**  
**EMERGENCY RESPONSE COORDINATOR**

Federal and state regulations require that one person, the Emergency Response Coordinator, be in charge during any emergency. The Emergency response Coordinator must be knowledgeable in all aspects of the Emergency response Procedures, and have the authority to implement them, as he deems appropriate. The Emergency Response coordinator can delegate various responsibilities, but the regulations are clear in establishing one person as being the coordinator of all activities in the event of a real or threatened emergency.

The Emergency Response coordinator must be either on site or on call at all times. He must also be thoroughly familiar with all aspects of the Emergency response Program, plant operations and activities, the location and characteristics of all hazardous substances, the location of all plant records, and the plant layout.

In the event of a real or threatened emergency situation, the Emergency Response Coordinator will decide what action to take. If the employees are used then the Emergency Response Coordinator will:

1. Coordinate with the Shift Supervisor on Duty (SSOD) to respond to the emergency using the appropriate Emergency Response procedure.
2. Instruct that all personnel be notified of the type and location of the emergency or that the Facility alarms be activated in the event of a general emergency.
3. Decide if the on site personnel can handle the emergency alone, or if additional help is needed. Such help may include local fire departments, police, etc. If additional help is needed, he shall insure that it is requested.
4. Notify Covanta Energy Inc. if a spill or release of chemical or petroleum products, or a loss of life has occurred. He shall then follow their instructions. *NOTE: This function must be performed by the Emergency response Coordinator, it cannot be delegated.*
5. Assess any possible hazards to human health, safety, or the environment. This assessment will consider both direct and indirect consequences of the emergency.
6. Determine if an evacuation of the surrounding area, adjacent to the plant, is necessary. If so, he will advise the local authorities.

7. Use all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other areas.
8. After the emergency, he will ensure that any contaminated soil, recovered waste, or surface water is treated, stored, and disposed of in accordance with all state and federal regulations.
9. At the direction of Covanta Energy Inc notify the appropriate federal, state, and local authorities that the emergency is over and the Facility is in compliance before operations are resumed.
10. Handle all press inquiries. *NOTE: No press releases will be distributed until they have been cleared through Covanta Energy Inc.. This includes any comments concerning the emergency.*

**APPENDIX 7-C-2**

**OPERATIONS MANAGER AND  
SAFETY & ENVIRONMENTAL COORDINATOR**

**APPENDIX 7-C-2**

**RESPONSIBILITIES  
OF  
OPERATIONS MANAGER AND  
SAFETY & ENVIRONMENTAL COORDINATOR**

The Operations Manager or Safety & Environmental Coordinator will:

- Act as the Emergency response Coordinator if the Plant Manager is unavailable.
- Prepare the Emergency Response Program and submit it to the Plant Manager for approval.
- Assist the Plant Manager in preparing Incident reports.
- Prepare reports and submit these to the Plant Manager for approval.
- Prepare regulatory reports for any reportable emergency. He shall submit these to both Plant Management and Covanta Energy Inc. for approval before submission to the appropriate regulatory agency.
- Prepare all routine regulatory reports and submit.
- Provide training for all employees. He will also be responsible for documentation of all training classes and drills. As emergencies can occur at any time day or night, drills can and will be held without prior notification.
- Provide technical assistance to the Emergency Response Coordinator and outside emergency assistance. He can also act as a third member of the team if necessary.
- Provide technical assistance for proper treatment, storage, and disposal of hazardous waste, contaminated soil, clothing, and equipment.
- Maintain a current set of MSDS readily available on site for all chemicals, including maintenance and cleaning materials.

**APPENDIX 7-C-3**

**SHIFT SUPERVISOR ON DUTY**

**APPENDIX 7-C-3**  
**RESPONSIBILITIES**  
**OF**  
**SHIFT SUPERVISOR ON DUTY**

The Shift Supervisor on Duty (SSOD) will be responsible for:

- Performing as the Emergency Response Coordinator.
- Insuring the Emergency Response Coordinator is notified of the emergency (if the emergency is due to a fire or a spill).
- Identifying the amount and material involved. He will forward this information to the Emergency Response coordinator. If the emergency is not due to a release or spill, he will provide the first reports to the Emergency Response Coordinator of the nature of the emergency and other relevant information.
- Insuring that an incident record is begun for any event that requires implementing the Emergency Response procedures.
- Complying with all instructions and directions from the Emergency Response Coordinator. If he receives any instructions that he deems not to be in the best interest of the safety of the employees, he must discuss these with the Emergency Response Coordinator before proceeding.
- Verify that all emergency equipment is cleaned, ready for service, and properly stored when the emergency has ended.

**APPENDIX 7-C-4**

**COVANTA ENERGY INC.**



## **APPENDIX 7-C-4**

### **RESPONSIBILITIES OF COVANTA ENERGY INC.**

In the event that Covanta Energy Inc, has been notified of an emergency, they will:

- Provide technical and legal assistance to the Facility in preparing verbal and written reports.
- In conjunction with the Legal Department, review the contents of any reports to be submitted to regulatory agencies.
- In conjunction with the Legal Department, review and approve any press releases concerning the incident.
- Provide assistance to the site for determining if a spill or release is reportable.

**APPENDIX 7-D**  
**REPORTING REQUIREMENTS**

## APPENDIX 7-D

### REPORTING REQUIREMENTS

*NOTE: Before notifying any governmental agency, Covanta Energy Inc. must be contacted for guidance.*

The Emergency Response Coordinator must make all immediate notification of governmental agencies. This does not include request for offsite help (police, fire, etc.). Follow up notification and the Plant Manager and Environmental Coordinator will submit reports. Unless directed by the Plant Manager, no other person is allowed to make any reports or statements concerning an incident. All statements and reports must be approved through Covanta Energy Inc.

Reports may need to be made under the following regulations:

1. OSHA – for death of an employee or for hospitalization of three or more employees.
2. Federal Water Pollution Control Act, Section 311 (Clean Water Act) – for chemical or petroleum releases to water. This includes groundwater.
3. Comprehensive Environmental response Compensation and Liability act of 1980 (CERCLA or Superfund) – release into the environment (ground, air, or water) of any hazardous substance over a 24-hour period, in excess of reportable quantity. For this plant, the following substances are included:

Diesel Oil – Any Quantity

Lube Oil – Any Quantity

## **APPENDIX 7-E**

### **SPECIFIC EMERGENCY PROCEDURES**

**APPENDICES 7-E-1**

**EMERGENCY PROCEDURES FOR SPILLS AND RELEASES**

## APPENDIX 7-E-1A

### EMERGENCY PROCEDURES FOR CHEMICAL SPILLS

1. When a chemical spill is reported, the Shift Supervisor on duty will make an immediate determination if it is contained in a diked area. If it is contained in a diked area with no possibility of release to the environment, the Emergency Response Coordinator will be notified, and clean up operations shall begin. The Emergency Response Coordinator, with technical assistance from the Environmental Coordinator, will decide on the proper clean up and disposal actions.
2. If there is any doubt about the extent of the spill, the Shift Supervisor on duty will contact the Emergency Response Coordinator and provide the following information:
  - 2.1 Material spilled or released
  - 2.2 Location of the release or spill of hazardous material
  - 2.3 Estimate of quantity released and the rate of release
  - 2.4 Direction of which the spill is headed
  - 2.5 Any injuries
  - 2.6 Fire and/or explosion possibilities
  - 2.7 The origin of the leak and action required securing the leak.
3. If the spill is determined to be within the employees capabilities to handle, the Emergency response Coordinator will direct that the evacuation, containment and cleanup operations to begin. If the spill is not within the capabilities of the employees to handle, The Emergency Response Coordinator will then call for additional plant personnel or outside assistance.
4. After placing the call for outside assistance, the Emergency response Coordinator will immediately notify Covanta Energy Inc... He shall then follow any instructions given, and make any verbal reports necessary.
5. In the event of any spill, the area will be evacuated. For small spills, isolate at least 50 feet in all directions. For larger spills, increase this distance to 200 feet in all directions. Keep all personnel upwind of the spill. This area may be increased or decreased as determined by the Emergency Response Coordinator. If a roadway or gate is within this distance, close the gate or block off the road.

6. If the spill or leak could extend beyond the plant boundaries, the Emergency Response Coordinator will notify the local authorities so that evacuation or isolation can begin.
7. If he deems it appropriate, the Emergency response Coordinator will instruct garbage and ash truck drivers to evacuate the site.
8. Unless a general evacuation is ordered by the Emergency Response Coordinator, personnel who are not in an affected area will stay in their respective workspaces. All visitors and contract personnel will report to the office area for accounting purposes. This will be done if evacuation has been ordered or not.
9. The "all clear" announcement will be given when the spill is under control and the safety of personnel is no longer endangered. The Emergency Response Coordinator, after consulting with the Shift Supervisor on duty, will determine when this announcement is to be made.
10. The Emergency Response Coordinator will then make any necessary reports before allowing normal operations to resume.

## **APPENDIX 7-E-1B**

### **EMERGENCY PROCEDURES FOR PETROLEUM SPILLS**

1. In the event of a spill of petroleum products, the procedure for chemical spills will be followed, with special attention being paid to the possibility of fire or explosion.
2. Petroleum spills will be cleaned up using either absorbent clay or Hazorb pillows / booms. No attempt will be made to reuse spilled petroleum products.
3. No smoking will be allowed within 100 feet of any petroleum spill. No vehicles, except for emergency vehicles, will be allowed within 50 feet of any petroleum spill.



## APPENDIX 7-E-2

### EMERGENCY PROCEDURES FOR FIRE OR EXPLOSION

#### GENERAL INSTRUCTIONS FOR FIRE AND EXPLOSIONS

##### DO NOT FIGHT FIRE ALONE.

- If there is an explosion on the tipping floor or on the site, all personnel will leave the area immediately and report to the evacuation assembly areas.
- Notify the Emergency Coordinator or other person in charge and follow his instructions.
- The Emergency Coordinator will call the Arlington Fire Department, or 911 for other outside assistance if needed.
- Clear the area of other explosive material if there is any danger of further explosions.
- Use the water sensibly. A fine spray is often as effective as a heavy stream and does not deplete the water reserves as quickly.
- Use fire extinguishers only on small fires. Do not waste a fire extinguisher on a large fire. You may need it later to protect yourself.

#### LOCAL FIRE DEPARTMENT

- The Emergency Coordinator will advise the Arlington Fire Department of the location and type of fire and whether it looks like it will spread from the immediate area. When the fire department arrives, follow the Emergency Coordinator's instructions or those of the appropriate Fire Department personnel.
- DO NOT PLACE YOURSELF OR OTHERS IN DANGER WHILE FIGHTING THE FIRE.

#### FIRE IN FUEL TANK AREA, VEHICLES OR SITE EQUIPMENT

- Remain upwind of the fire.
- Fight small fuel fires and electrical fires with Type ABC fire extinguishers, not water.
- Extinguisher locations are shown in Appendix 7-F.
- Contain large fuel fires if possible and wait for the fire department. Spray fuel tanks exposed to fire with water from safe distance to keep them cool, but do not let water spread burning fuel.

### **APPENDIX 7-E-3**

#### **EMERGENCY PROCEDURES FOR MEDICAL EMERGENCIES**

1. When the Control Room is notified of a medical emergency, the Shift Supervisor on duty shall be immediately notified. The Emergency Response Coordinator shall also be notified as time permits.
2. An employee on site will have current First Aid and CPR training.
3. The Shift Supervisor on duty or Emergency Response Coordinator will make all decisions regarding movement of injured personnel.
4. If an emergency rescue operation involving a confined space is necessary, the Shift Supervisor on duty or Emergency Response Coordinator will contact outside assistance. If no confined space is involved, the Shift Supervisor on duty or Emergency Response Coordinator will decide what safety equipment is necessary.
5. If off site help or transportation is necessary, the Shift Supervisor on duty or Emergency Response Coordinator will request the assistance. If he cannot reach a telephone, he may instruct the Control Room Operator to perform this function.
6. If the medical emergency involves the death of an employee (permanent or contractor) on injury to three or more personnel, the Emergency Response Coordinator shall notify Covanta Energy Inc. immediately upon learning all the details.

## APPENDIX 7-E-4

### EMERGENCY PROCEDURES FOR BOMB THREAT

1. In the event that a bomb threat is received by telephone, the following procedures shall be observed:

- 1.1 If another employee is in the immediate area, raise a clenched fist to indicate a bomb threat.

Upon noticing the bomb threat signal, call 911 and report the bomb threat, and on which line it is on. Line numbers are as follows:

Line 1 -	Line 5 -
Line 2 -	Line 7 -
Line 3 -	
Line 4 -	

- 1.2 Attempt to engage the caller in conversation and complete a Bomb Threat Questionnaire.

- 1.3 Immediately following the call (or another employee during the call) notify the Shift Supervisor on duty and the emergency Response Coordinator.

2. The Emergency Response Coordinator will make the decision to evacuate the plant or search for the bomb.

- 2.1 If the decision is made to evacuate the plant, plant employee will assemble at the Secondary Emergency Assembly Area.

- 2.2 If the decision is made to search for the bomb, suggested places to search are as follows:

2.2a	Locker Rooms
2.2b	Rest Rooms
2.2c	Waste Cans
2.2d	Cabinets
2.2e	Shipping and Receiving Area
2.2f	Electrical Rooms
2.2g	Flammable Storage Area
2.2h	Refuse Building
2.2i	Any Other Area Open to the Public

2.3 During a search, pay special attention to any storage object not normally located in that area. The bomb may or may not be camouflaged.

3. If a suspicious object is found, leave it alone and notify the Emergency Response Coordinator. He will advise the local authorities and direct to evacuate the surrounding area or building.
4. If after a reasonable time of searching, the emergency Response Coordinator will make the decision to abandon the search and resume normal operations. This decision will be made after discussions with local law enforcement officials and members of the management Staff.

Bomb Threat Questionnaire			
Time the call was made:			
Exact words of caller:			
Are you sure you called the right building?			
What number did you call?			
When is the bomb going to explode?			
Where is the bomb right now?		What floor?	
What side of the building?			
What kind of bomb is it?			
How powerful is it?			
What does it look like?			
Why did you place the bomb?			
How did you get it into the building?			
Where are you calling from?			
What's your name?			
Description of the caller's voice:			
<input type="checkbox"/> Male	<input type="checkbox"/> Young	<input type="checkbox"/> Old	Voice Tone
<input type="checkbox"/> Female	<input type="checkbox"/> Middle Aged	<input type="checkbox"/> Accent	
Background noises:			
Is the voice familiar?		What does it sound like?	
Voice characteristics:			
<input type="checkbox"/> Slow	<input type="checkbox"/> Loud	<input type="checkbox"/> Normal	<input type="checkbox"/> Sincere
<input type="checkbox"/> Rapid	<input type="checkbox"/> Disguised	<input type="checkbox"/> Broken	<input type="checkbox"/> Excited
Time caller hung up:			
Remarks:			
Person who received the call:			
Address:			
Telephone #:			

**After completing form, notify your supervisor immediately.**

## APPENDIX 7-E-5

### EMERGENCY PROCEDURES FOR INADEQUATELY TREATED MEDICAL WASTE

1. The tipping floor attendant will be trained to recognize when Regulated Medical Waste (RMW) delivered to the Facility has not been treated and destroyed in accordance with Subpart 360-17. For details of receiving RMW see section 6.0 Waste Control Plan. Unloading of inadequately treated RMW will constitute an emergency situation.
2. In the case that inadequately treated medical waste is discharged onto the tipping floor, the Tipping Floor Attendant will notify the Shift Supervisor on Duty, Safety and Environmental Coordinator and the Scale House Attendant that inadequately treated medical waste has been discharged on the tipping floor.
3. The area will be roped or taped off using red "Danger" tape and the truck will be instructed not to leave the site.
4. The Dutchess County Resource Recovery Agency shall notify the Dutchess County Health Department and the originator of the waste as listed on the manifest. The originator will be notified to send personnel experienced in handling medical waste to reload the material into the delivering vehicle and return it to the originator for further processing.
5. Next the Tipping Floor Attendant will complete an Unauthorized Waste Form (6 NYCRR 360-1.14 (e) (2)) and forward to the Shift Supervisor on Duty.
6. After the inadequately treated medical waste has been reloaded, the tipping floor area exposed to waste shall be washed down using a 10:1 water bleach mixture.

## APPENDIX 7-E-6

### EMERGENCY PROCEDURES FOR RECEIPT OF UNAUTHORIZED/HAZARDOUS WASTE

1. The Scale House is the first place for waste inspection. The Scale House is equipped with a Ludlum Model 300 radiation alarm meter. The sensor is mounted on the outside of the scale house over the scale for incoming trucks. (For more details see section 7.4 Radiation Monitoring Plan)
2. The Tipping Floor Attendant shall inspect the waste in general looking for labels and packaging, order, unusual color, smoke, vapors or any other sounds or fumes coming from the waste that would indicate that the waste is unauthorized or hazardous.
3. If unauthorized or hazardous waste is received on the tipping floor, he will stop incoming traffic and notify all personnel on the tipping floor to exit immediately. The Tipping Floor Attendant will notify Scale House Attendant to not let the truck that delivered the waste leave the site. He will next contact the Shift Supervisor on Duty, Safety and Environmental Coordinator. The Dutchess County Resource Recovery Agency shall notify the originator of the waste. The originator will be notified to send personnel experienced in handling such waste and arrange for transportation and disposal of such waste using acceptable disposal methods.
4. Next the Tipping Floor Attendant will complete an Unauthorized Waste Form (6 NYCRR 360-1.14 (e) (2)) and forward to the Shift Supervisor on Duty.
5. The New York State Department of Environmental Conservation or the Dutchess County Health Department may be contacted as a resource. (See Emergency Notification List for phone numbers.)
6. After the waste has been removed from site or moved to a safe distance away from employees, guest and contractors, the Tipping Floor may return to service.

## **Appendix 7-E-7**

### **EMERGENCY PROCEDURES FOR COMMUNITY DISTURBANCES**

1. In The event of community disturbances, the Shift Supervisor on duty will immediately:
  - 1.1 Notify the Emergency Response Coordinator.
  - 1.2 Insure that all gates are closed.
  - 1.3 Insure that the Administrative Building is secured.
  - 1.4 Insure that the local authorities are notified via the emergency number (911).
  - 1.5 Insure that an announcement is made over the plant PA system, and that all employees and contractors are notified.
2. In the event that unauthorized personnel enter the site, all personnel will proceed to the Administrative Building. Before proceeding to the Administrative Building, the Control Room Operator will trip the turbine, both ID and FD fans, electric force circ pumps, and electric boiler feed pump (if running). He then will start the turbine boiler feed pumps (if necessary) and/or the turbine force circ pumps. He will then turn off the console screens and evacuate the Control Room proceeding to the Administration Building.



## **APPENDIX 7-E-8**

### **EMERGENCY PROCEDURES FOR REENTRY PLANNING**

1. If an area has been evacuated, the Emergency Response Coordinator will consult with the Management staff regarding the appropriate method of reentry. This will vary depending on the type of emergency that necessitated the evacuation. General guidelines to be followed are:
  - 1.1 No area will be reentered until a reasonable degree of personnel safety can be assured.
  - 1.2 The Shift Supervisor on duty or his designee (s) will perform the initial reentry.
  - 1.3 The Shift Supervisor on duty will report the initial findings to the Emergency Response Coordinator. The Emergency Response Coordinator will decide if plant personnel are to be allowed to reenter and normal operations to begin.

## **APPENDIX 7-F**

**FIRE EXTINGUISHERS, FIRE HOSES LOCATIONS AND EXIT ROUTES**

**(SEE APPENDIX 7-B SUPPLEMENT)**

**APPENDIX 7-G**

**COMMUNITY RIGHT TO KNOW AND SARA TITLE III REPORTING**

## **APPENDIX 7-G**

### **COMMUNITY RIGHT TO KNOW AND SARA TITLE III REPORTING**

The SARA Title III program provides for Community Right to know regarding hazardous and extremely hazardous material located and used at Covanta Hudson Valley Renewable Energy LLC.

Aside from small amounts of laboratory chemicals used in water analysis and not in reportable quantities, there are presently no chemicals on site that fall under SARA Title III.

Reporting under SARA Title III is the responsibility of the Plant Manager and Environmental Coordinator

**APPENDIX 7-A SUPPLEMENT**

**EMERGENCY PERSONNEL**

**TABLE 7-A-1 EMERGENCY COORDINATORS**

**TABLE 7-A-2 QUALIFICATIONS OF EMERGENCY PERSONNEL**

**TABLE 7-A-1**

**EMERGENCY COORDINATORS**

DESIGNATED EMERGENCY RESPONSE COORDINATOR

Covanta Hudson Valley Renewable Energy LLC

Site Address: 98 Sand Dock Road, Poughkeepsie, NY 12601

Emergency Response Coordinator: Roy Chance, Facility Manager

Site Telephone Number: (845) 462-4650 ext: 128

Cell Telephone Number: (845) 656-5644

Alternates:

Jack McCarthy, Chief Engineer

Cell Telephone Number: (914) 320-0089

Dan White, Safety Coordinator

Beeper Telephone Number: (845) 465-5949

The shift supervisor on shift will act as the Alternate Emergency Coordinator when the primary emergency coordinator or the listed alternates are not on site.

**TABLE 7-A-2**

**QUALIFICATIONS OF EMERGENCY PERSONNEL**

**A. Primary Emergency Coordinator**

Roy Chance, Facility Manager

1. Classroom training and field practice
2. Supervised and unsupervised drills
3. Haz Mat spill training instruction

**B. Alternate Emergency Coordinators**

Jack McCarthy, Chief Engineer:

1. Classroom training and field practice
2. Supervised and unsupervised drills
3. Haz Mat spill training instruction

Dan White, Safety Coordinator

Classroom training, field practice,  
Supervised/unsupervised drills

**C. Emergency Team Members:**

Shift Supervisors: Classroom training, field practice,  
Supervised/unsupervised drills

Assistant Operators: Classroom training, field practice,  
Supervised/unsupervised drills

Auxiliary Operators: Classroom training, field practice, supervised/unsupervised drills

Plant Engineer: Classroom training, field practice, supervised/unsupervised drills

## **APPENDIX 7-B SUPPLEMENT**

### **APPENDIX 7-B-1A EVACUATION ROUTES**

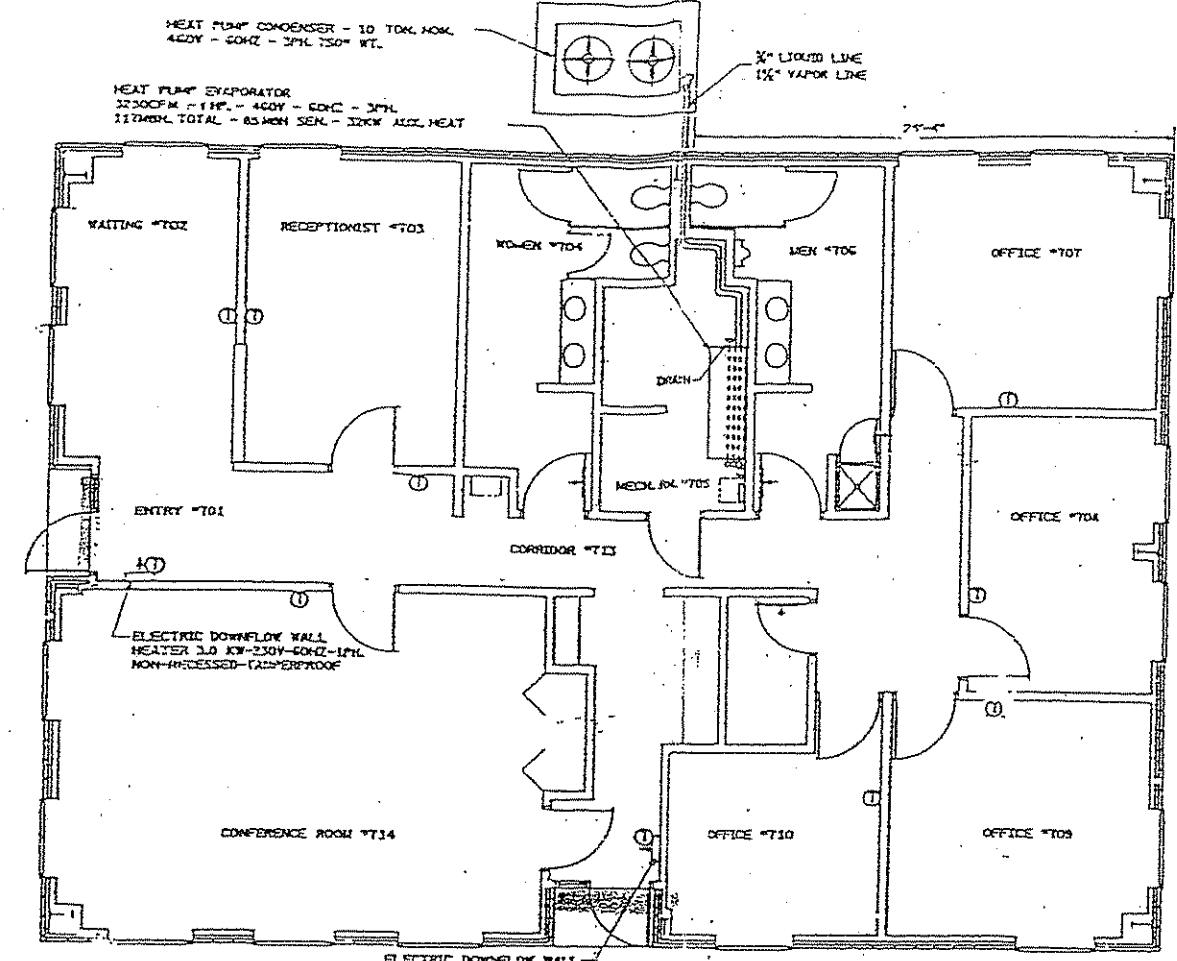
### **APPENDIX 7-B-1B EMERGENCY EQUIPMENT DESCRIPTION**



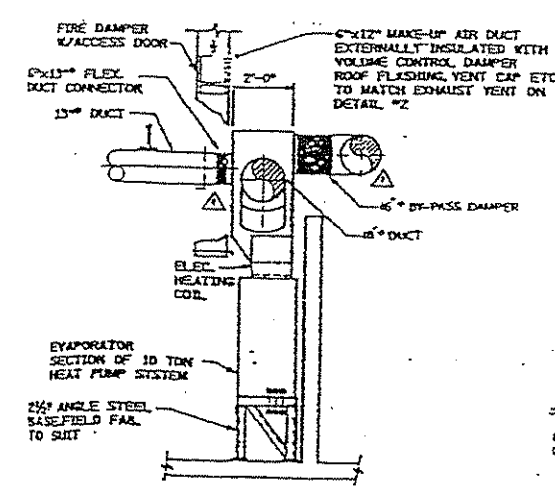
**APPENDIX 7-B-1A  
EVACUATION ROUTES**

**EVACUATION ROUTES**

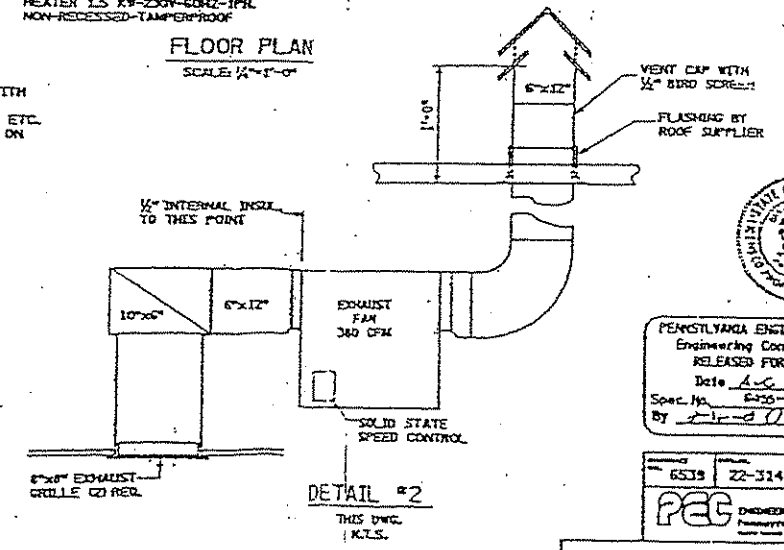
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7-6-1	Administration Building Corridors and Exits
7-6-2	Scalehouse Building Corridors and Exits
7-6-3	Process Building Administration Offices Corridor and Exit
7-6-4	Process Building Level 66'6 (including Maintenance Shop and Turbine Room) Corridors and Exits
7-6-5	Process Building Level 78'6 (including main lobby, Control Room, and tipping floor) Corridors and Exits
7-6-6	General Evacuation Routes

$$\frac{1}{2} \epsilon_{\mu\nu} \tau^{\mu\nu}$$





FLOOR PLAN  
SCALE: 1/4" = 1'-0"



DETAIL # 1  
THIS DRAWING  
SCALE 3/4"=1'-0"

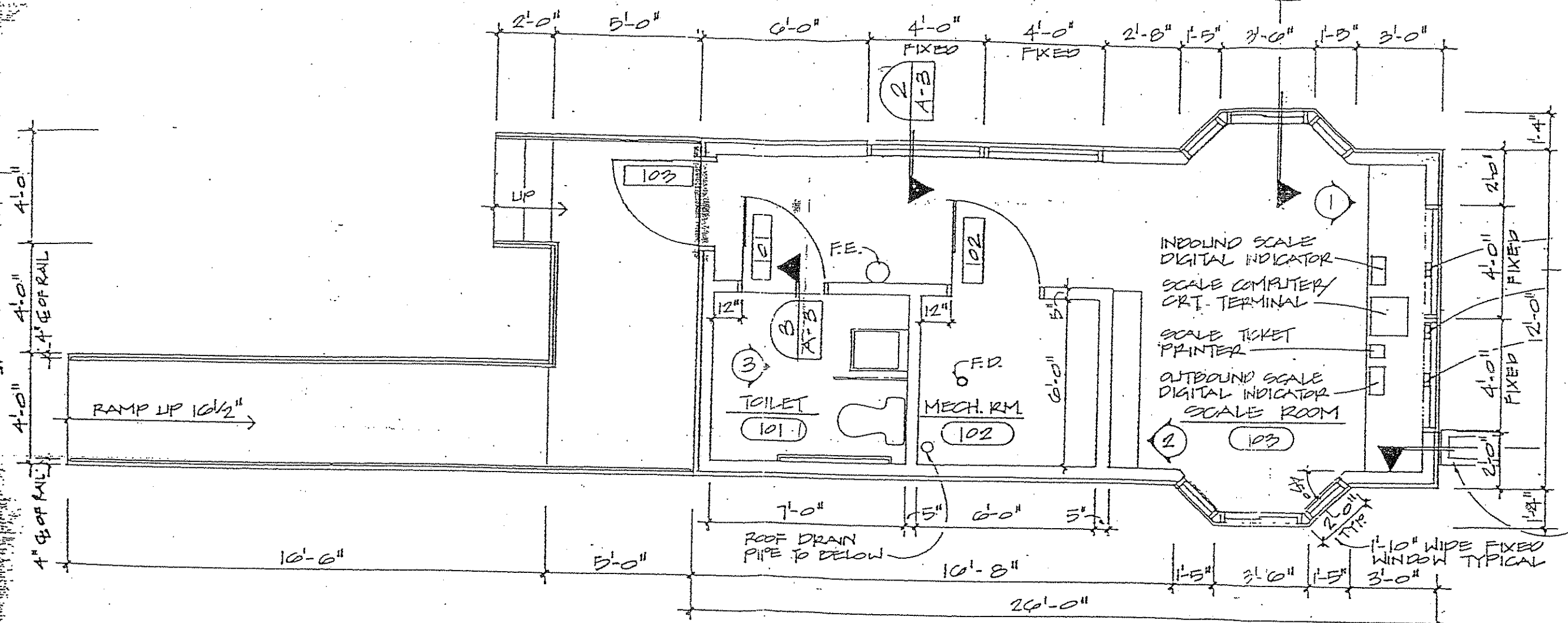


DUTCHESS COUNTY, POUGHKEEPSIE, NEW YORK  
RESOURCE RECOVERY FACILITY  
ADMINISTRATION BUILDING H.V.A.C.  
PLAN SECTION & DETAILS

 DEPARTMENT OF DEFENSE OFFICE OF THE SECRETARY		PROJECTING NO. _____ BY WH. _____ DATE _____		PROJECTING STAGE _____ INSTRUCTIONS: _____	
 DUCT MODIFICATIONS	AM 10-21-06	FULL _____ DATE _____		DRAWN AN 2/11/06 DATE 2/11/06	FIGURE NO. _____
 RELEASE FOR CONSTRUCTION	AM 10-21-06	DEPT. APPROVAL _____		G-55 CHECK NJA 2/11/06 DATE 2/11/06	6455-22-3140
NO. _____	REVISION _____	BY _____	DATE _____	PROJECTING NO. _____	SCALE 1/4" = 1'-0"

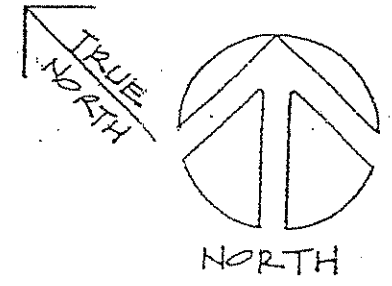
NOTE: FIRE EXTINGUISHER (F.E.)  
TO BE ABC TYPE 10 LB.  
WALL MOUNTED, LARSEN'S  
MFG. CO. OR APPROVED EQUAL  
PER NFPA REQUIREMENTS

Exit  
Corridor

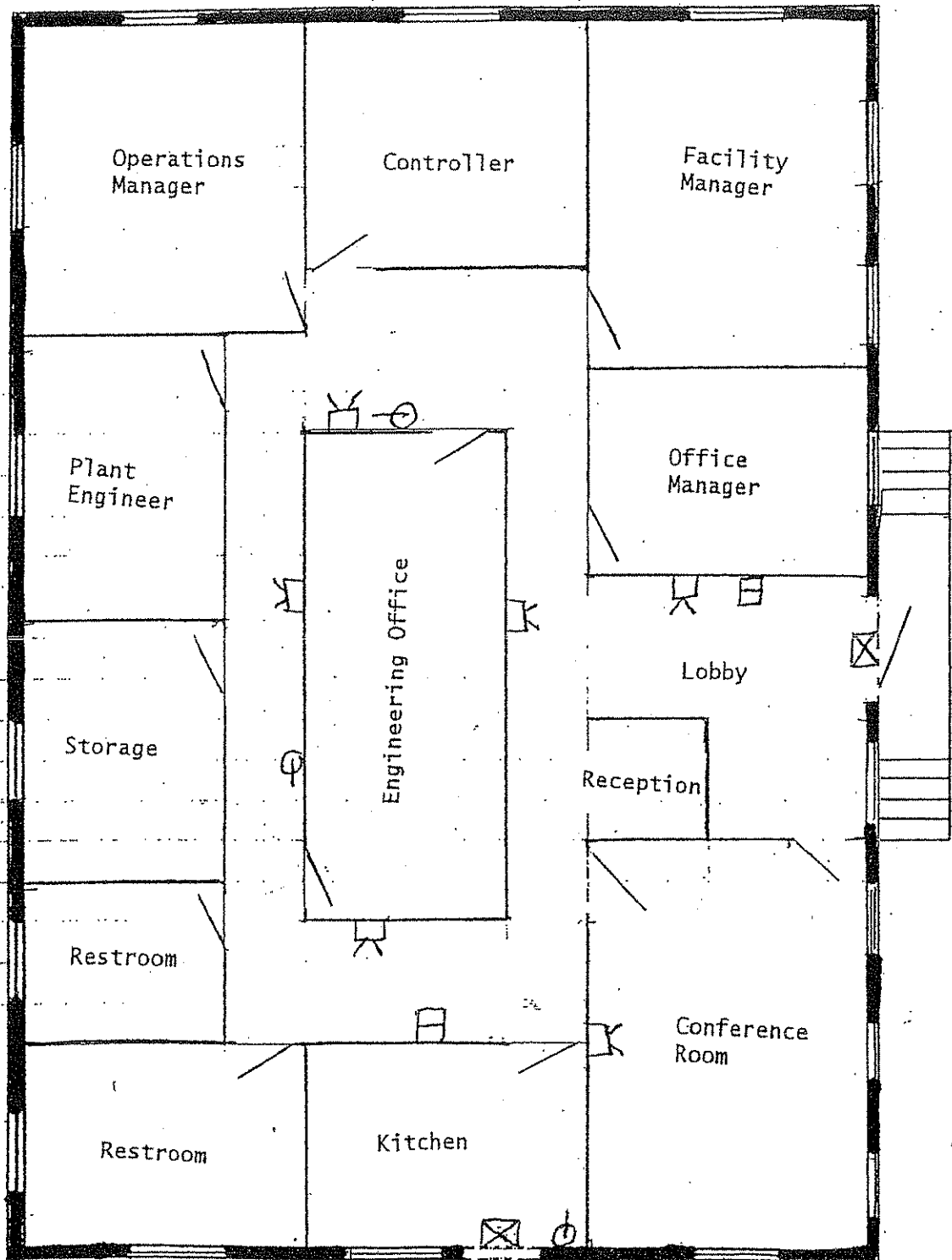


NOTE: INTERIOR METAL STUDS GO TO UNDERSIDE OF THE STEEL JOISTS.

GRADE LEVEL FLOOR PLAN  
SCALE: 1/4" = 1'-0"



# Operator Office Building

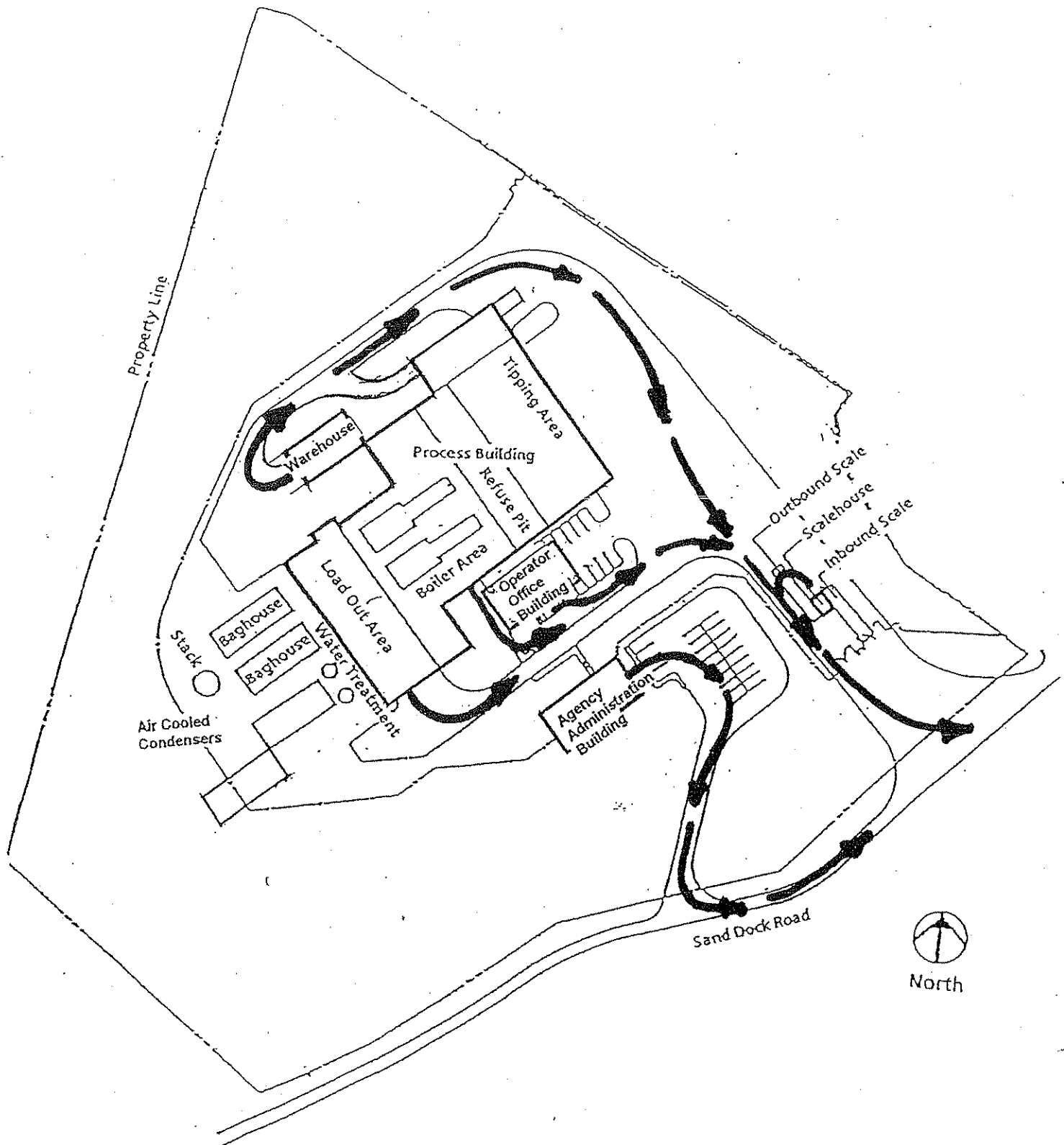


Legend: Emergency Exit  
 Fire Alarm Pull Station  
 Fire Alarm Annunciator  
 Fire Extinguisher

PROG

Drawing 7-6-3

# GENERAL EVACUATION ROUTES



## **APPENDIX 7-B-1B**

### **EMERGENCY EQUIPMENT DESCRIPTION**

Table 7-B-1 lists the emergency equipment available at the site. This equipment includes firefighting equipment, first aid equipment, protective clothing and respiratory equipment and is stored in the Facility (see Figures 7-B-1 through 7-B-6).

The fire extinguishers are generally dry chemical Type ABC. These devices can be used for fighting fires involving ordinary combustible materials, flammable liquids or energized electrical equipment. All extinguishers comply with the National Fire Code Standard for portable fire extinguishers. All extinguishers are to be inspected monthly or after each use. Records of these inspections and remedial actions are to be kept on inspection log sheets.

The locations of fire hydrants and water cannons are also shown in Figures 7-B-1 through 7-B-6. This equipment should be used for general firefighting not involving electrical components or flammable liquids. This equipment also meets National Fire Code Standards.

## **TABLE 7-B-1**

### **EMERGENCY EQUIPMENT**

The equipment used to contain and clean up spilled hazardous materials consists of:

1. Bagged Absorbent
2. Absorbent Sheets
3. Containment Boom
4. Soda Ash

First aid equipment consists of kits containing the following:

1. Bandages,
2. Antibacterial Ointments,

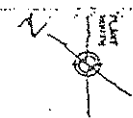
Protective clothing and equipment provided to protect employees during normal operation and for emergency use includes:

1. Industrial rubber boots,
2. Vinyl boot covers,
3. Splash shields,
4. Hard hats,
5. Disposable coveralls, and
6. Acid Suits.

Respiratory protection equipment consists of:

1. Half-Face Respirators with Cartridges (TC-23C-21)
2. Survivor Self-contained breathing apparatus

3131



6455-74-0811

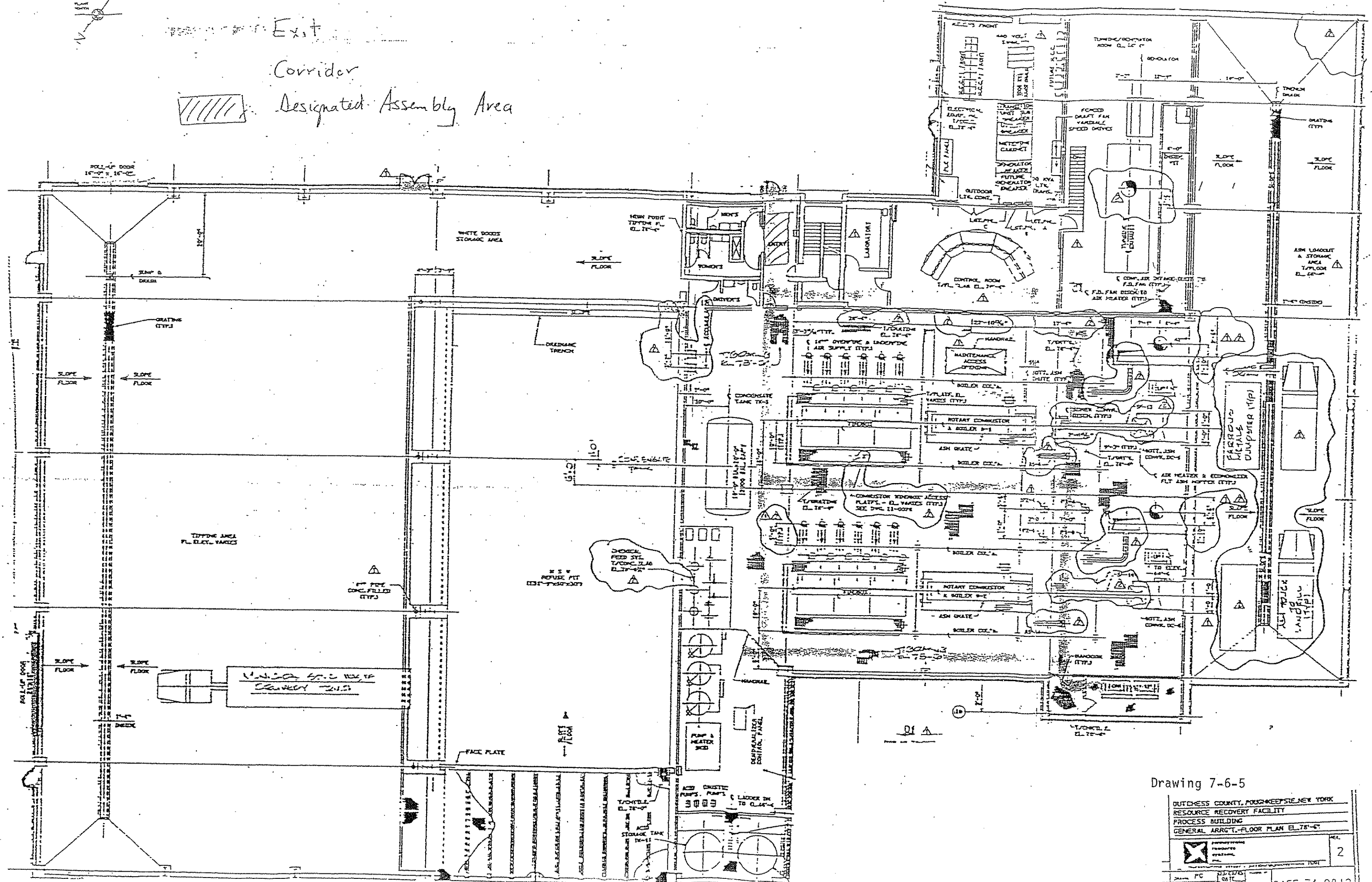
Drawing 7-6-1



Exit



Corridor

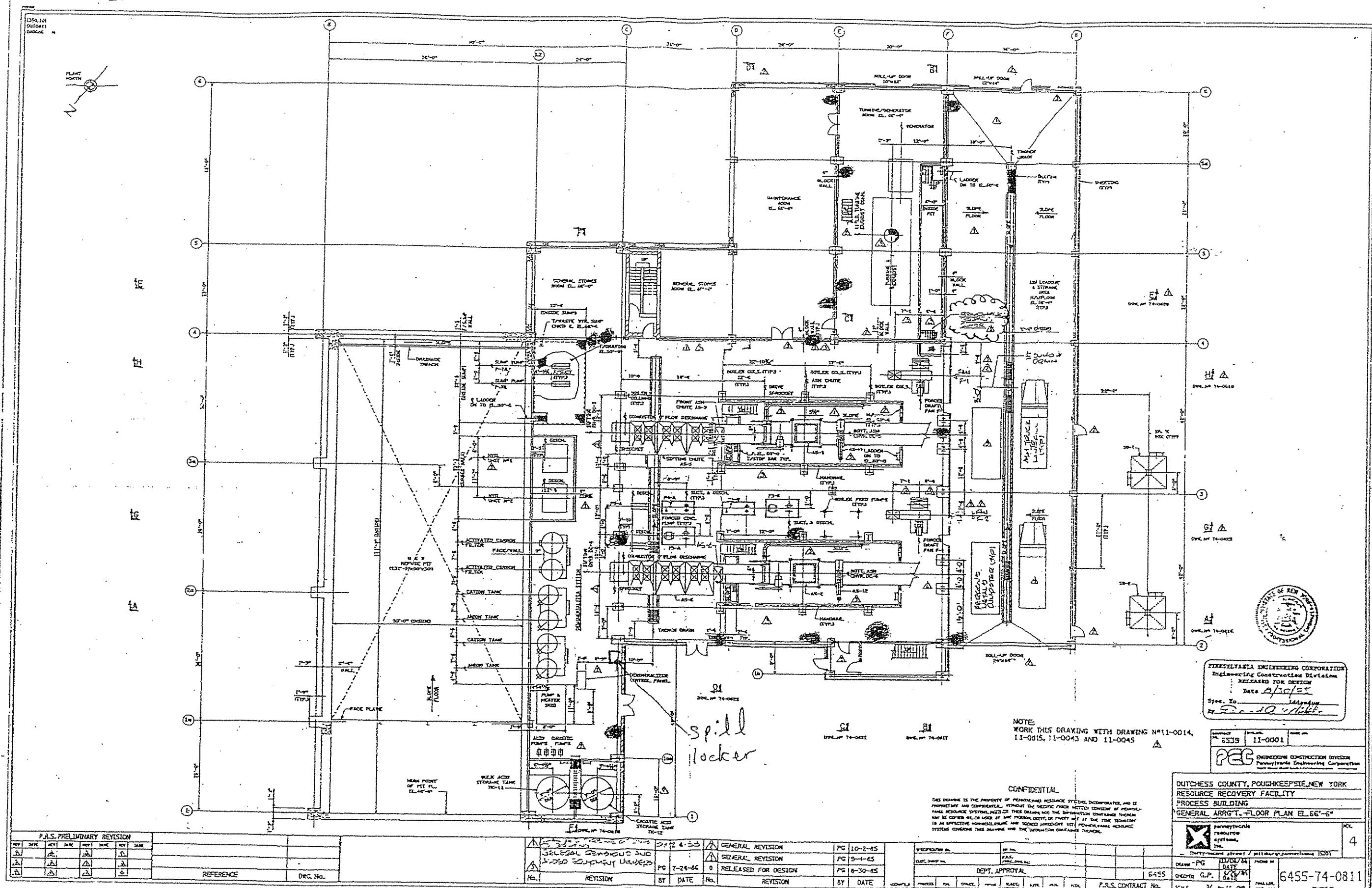
Designated Assembly Area



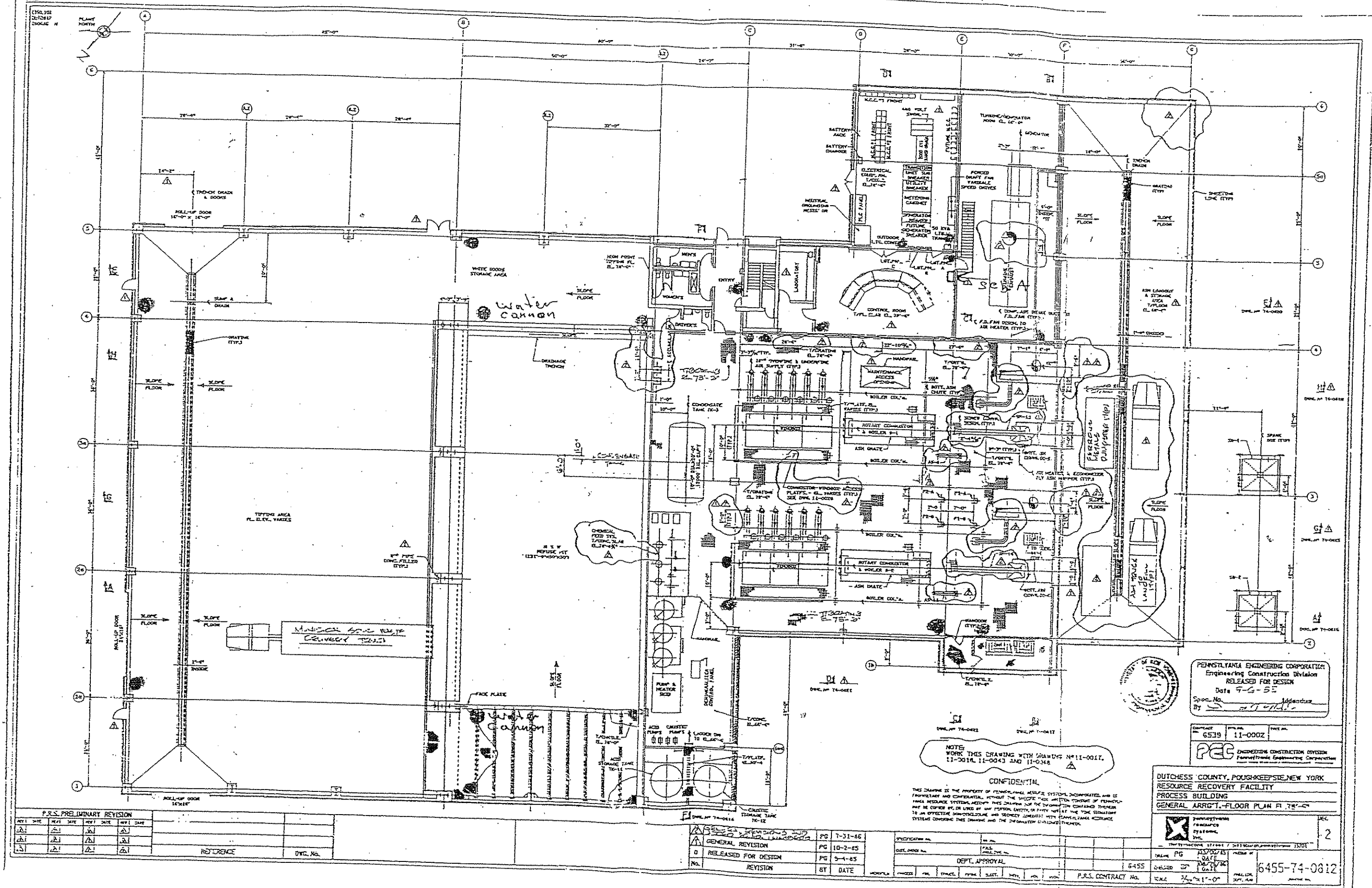
Drawing 7-6-5

OUTCHES COUNTY, POUGHKEEPSIE, NEW YORK	
RESOURCE RECOVERY FACILITY	
PROCESS BUILDING	
GENERAL ARR'GT. FLOOR PLAN EL. 75'-0"	
2	
DATE: 10/1/78	
DRAWN: PC	
CHECKED: [Signature]	
CASE-76-0812	

 FIRE HOSE  
 FIRE EXTINGUISHER



FIRE HOSE  
FIRE EXTINGUISHER



PENNSYLVANIA ENGINEERING CORPORATION  
Engineering Construction Division  
RELEASED FOR DESIGN  
Date 7-9-55  
Spec. No. 11-0002  
By [Signature]

6539 11-0002  
P.E.C. ENGINEERING CONSTRUCTION DIVISION  
Pennsylvania Engineering Corporation

DUTCHESS COUNTY, POUGHKEEPSIE, NEW YORK  
RESOURCE RECOVERY FACILITY  
PROCESS BUILDING  
GENERAL ARRGT.-FLOOR PLAN R. 78'-0"



DATE 7-9-55  
DRAWN BY [Signature]  
CHECKED BY [Signature]  
P.E.C. CONTRACT NO. 6455-74-0812

NOTE: WORK THIS DRAWING WITH DRAWING NO. 11-0017, 11-0018, 11-0043 AND 11-0048.

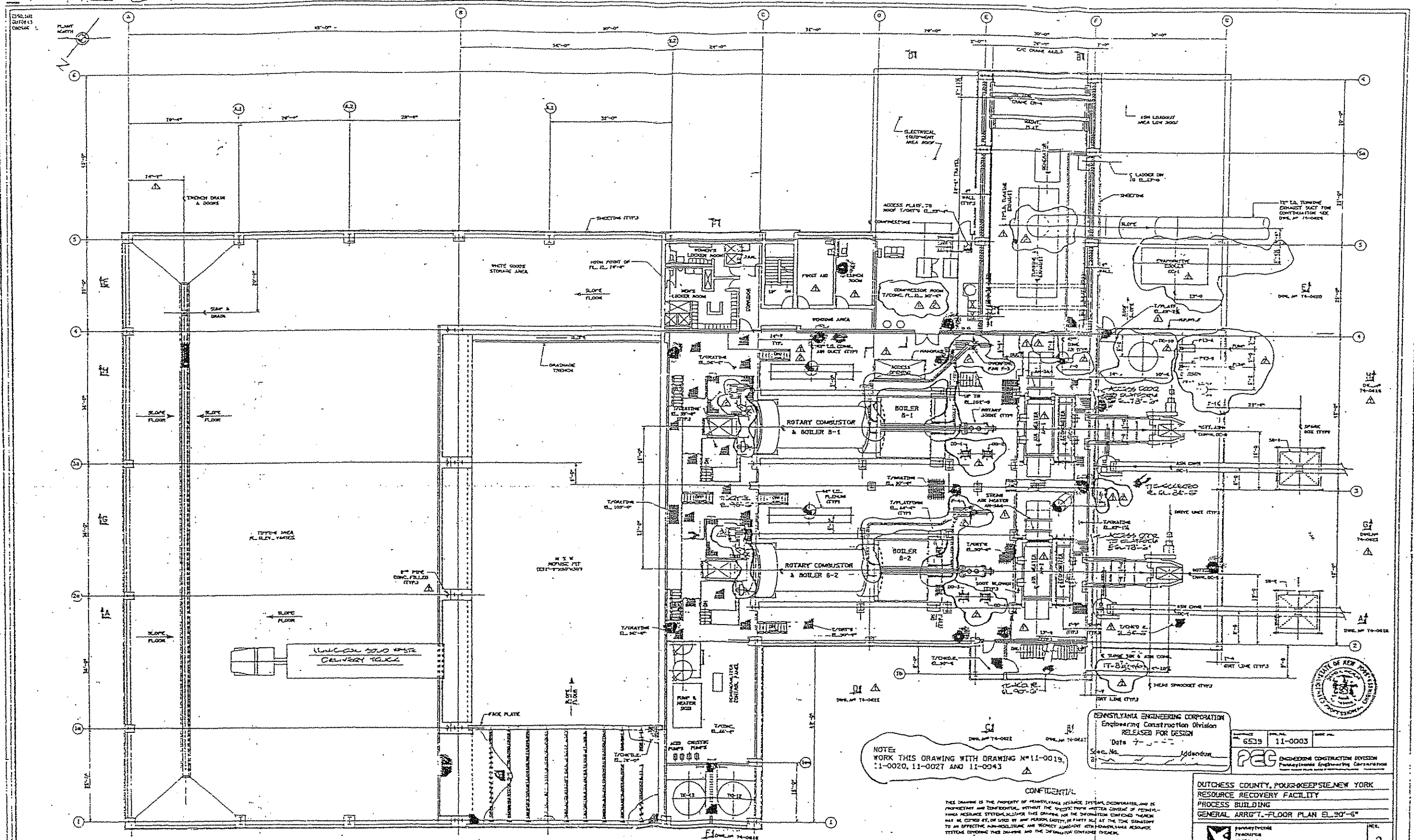
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P.E.C. PRELIMINARY REVISION				
REV.	DATE	BY	CHK.	APP.
1	7-9-55	[Signature]	[Signature]	[Signature]
2	7-9-55	[Signature]	[Signature]	[Signature]
3	7-9-55	[Signature]	[Signature]	[Signature]

REVISION	DATE	BY	CHK.	APP.
1	7-31-56	[Signature]	[Signature]	[Signature]
2	10-2-55	[Signature]	[Signature]	[Signature]
3	5-4-55	[Signature]	[Signature]	[Signature]

**FIRE HOSE**  
**FIRE EXTINGUISHER**



NOTE:  
 WORK THIS DRAWING WITH DRAWING N° 11-0019,  
 11-0020, 11-0027 AND 11-0043

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 Engineering Construction Division  
 RELEASED FOR DESIGN  
 Date 7-1-85  
 Scale No. Addendum



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 STORAGE AND RETRIEVAL SYSTEM. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION  
 OF THIS DRAWING IS PROHIBITED AND WILL BE SUBJECT TO PROSECUTION TO THE FULL  
 EXTENT OF THE LAW.



OUTCHESSE COUNTY, POUGHKEEPSIE, NEW YORK  
 RESOURCE RECOVERY FACILITY  
 PROCESS BUILDING  
 GENERAL ARR'G'T-FLOOR PLAN EL. 90'-6"

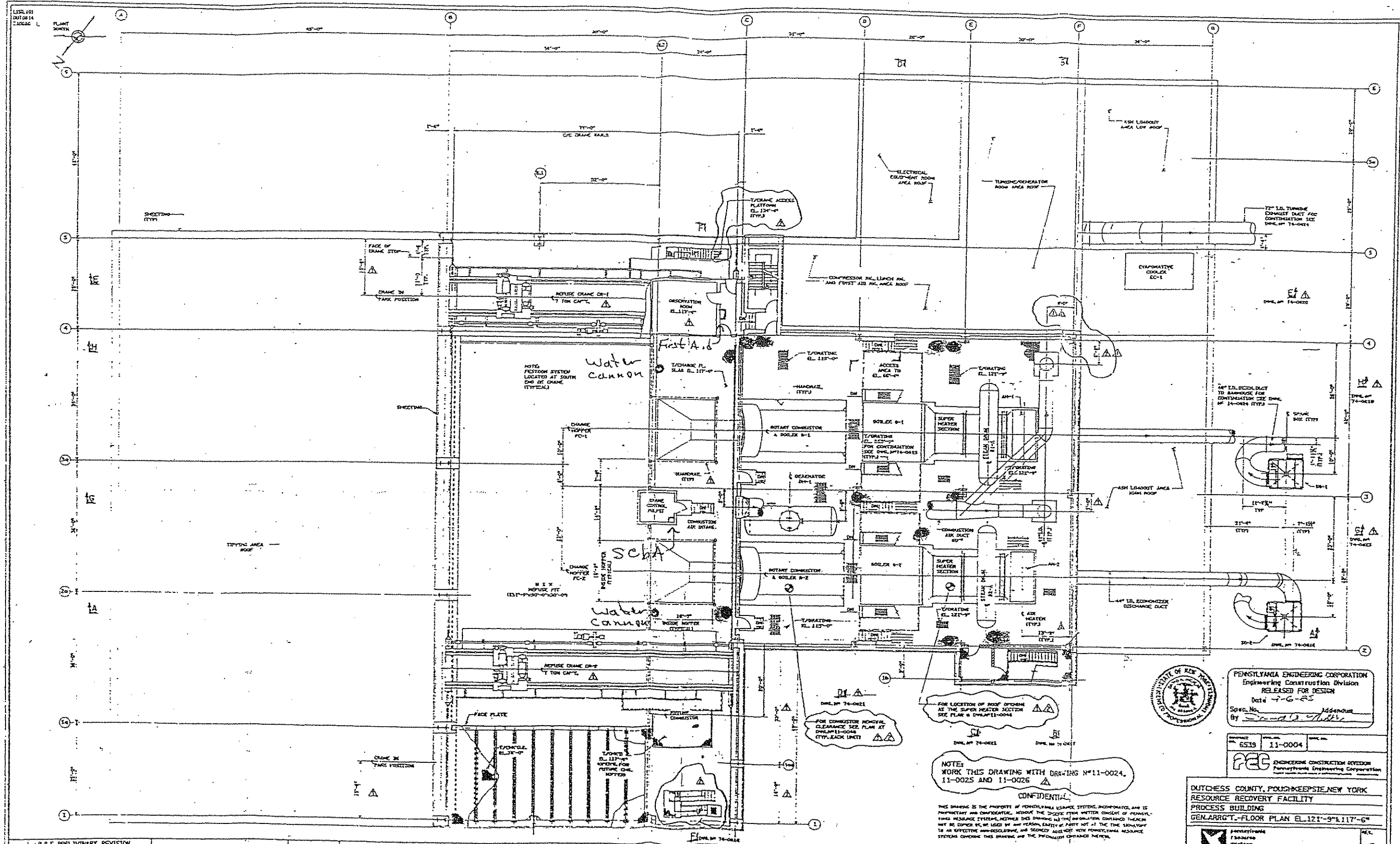
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3	7/1/85	RLJ	RLJ	RLJ	GENERAL REVISION
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10	7/1/85	RLJ	RLJ	RLJ	GENERAL REVISION

PG 17-31-85	PG 10-3-85	PG 9-3-85
ISSUED FOR DESIGN	GENERAL REVISION	GENERAL REVISION
BY	DATE	REVISION

DEPT. APPROVAL	6455	6455-74-0813
DESIGNED BY	PG 17-31-85	PG 10-3-85
CHECKED BY	PG 9-3-85	PG 17-31-85
DATE	7/1/85	7/1/85
SCALE	1/8" = 1'-0"	1/8" = 1'-0"



 = FIRE HOSE  
 = FIRE EXTINGUISHER



PENNSYLVANIA ENGINEERING CORPORATION  
 Engineering Construction Division  
 RELEASED FOR DESIGN  
 Date 7-6-65  
 Scale No. \_\_\_\_\_  
 By *[Signature]*

PROJECT NO. 11-0004  
 P.E.C. ENGINEERING CONSTRUCTION DIVISION  
 Pennsylvania Engineering Corporation

DUTCHESS COUNTY, POUGHKEEPSIE, NEW YORK  
 RESOURCE RECOVERY FACILITY  
 PROCESS BUILDING  
 GEN. ARR'G. - FLOOR PLAN EL. 121'-9" & 117'-6"





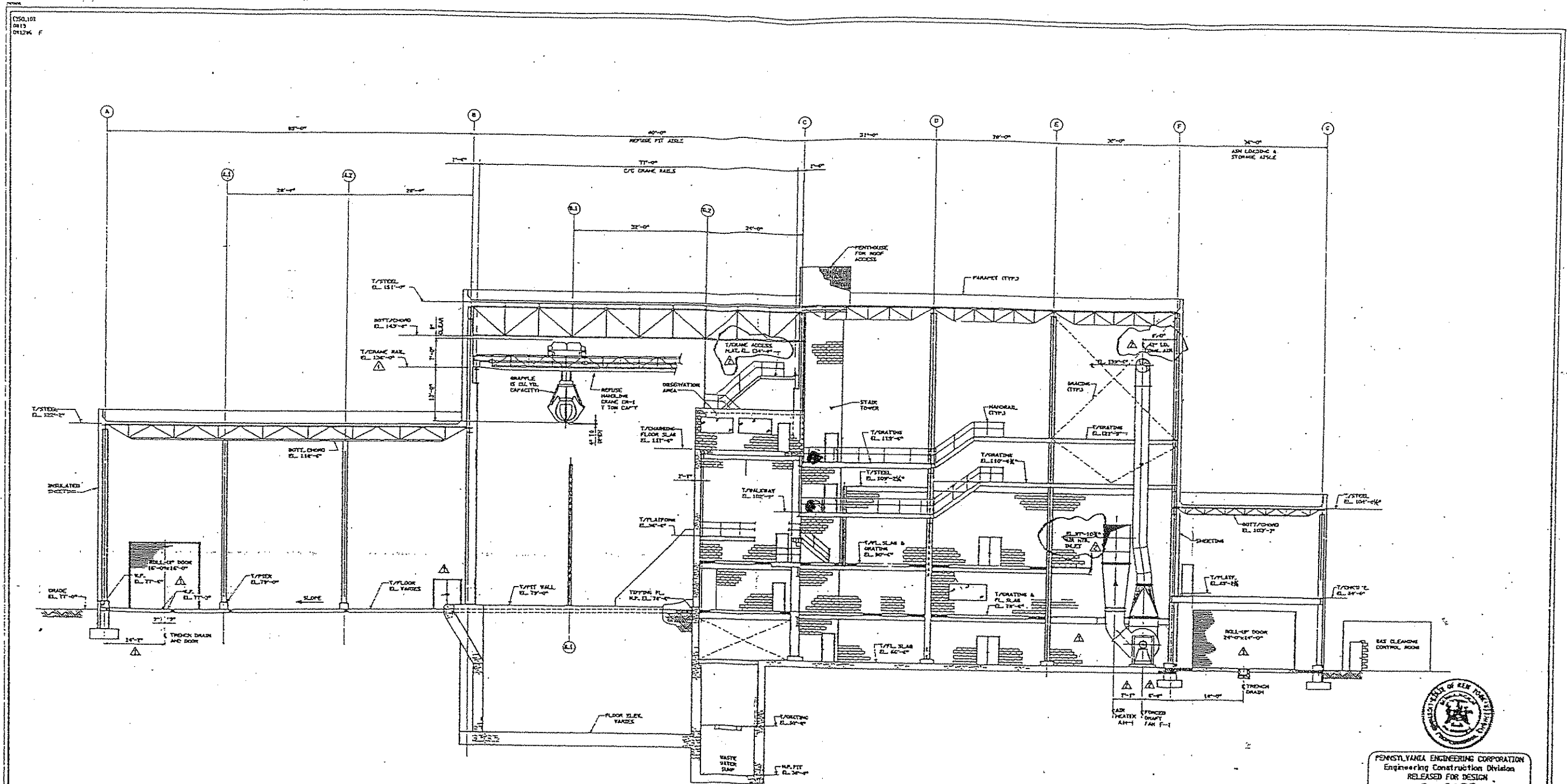
SHEET NO. 2  
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2	10-3-65	PG	10-3-65
3	3-4-65	PG	3-4-65
REFERENCE		DWG. NO.	

GENERAL REVISION		PG	DATE
1	RELEASED FOR DESIGN	PG	3-4-65
REVISION		BY	DATE

DEPT. APPROVAL	6455	DECIDED GP	6455-74-0814
SCALE	3/8" = 1'-0"	P.R.S. CONTRACT NO.	

 FIRE HOSE  
 FIRE EXTINGUISHER



SECTION "H-H"  
 LOOKING EAST  
 DWG'S H-74-0811 THRU 74-0815



PENNSYLVANIA ENGINEERING CORPORATION  
 Engineering Construction Division  
 RELEASED FOR DESIGN  
 Date 9-26-85  
 Spec. No. Addendum  
 by *David M. Miller*

6539 11-0015  
**PEG** ENGINEERING CONSTRUCTION DIVISION  
 Pennsylvania Engineering Corporation  
 1000 N. 10th St., P.O. Box 1000, Harrisburg, PA 17103

DUTCHESS COUNTY, POUGHKEEPSIE, NEW YORK  
 RESOURCE RECOVERY FACILITY  
 PROCESS BUILDING  
 GENERAL ARRANGEMENT - SECTION "H-H"

**CONFIDENTIAL**  
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 DATE: 05/05/85  
 CHECKED: GP  
 P.E.S. CONTRACT NO. 6455-74-0819  
 SCALE: 3/8"=1'-0"

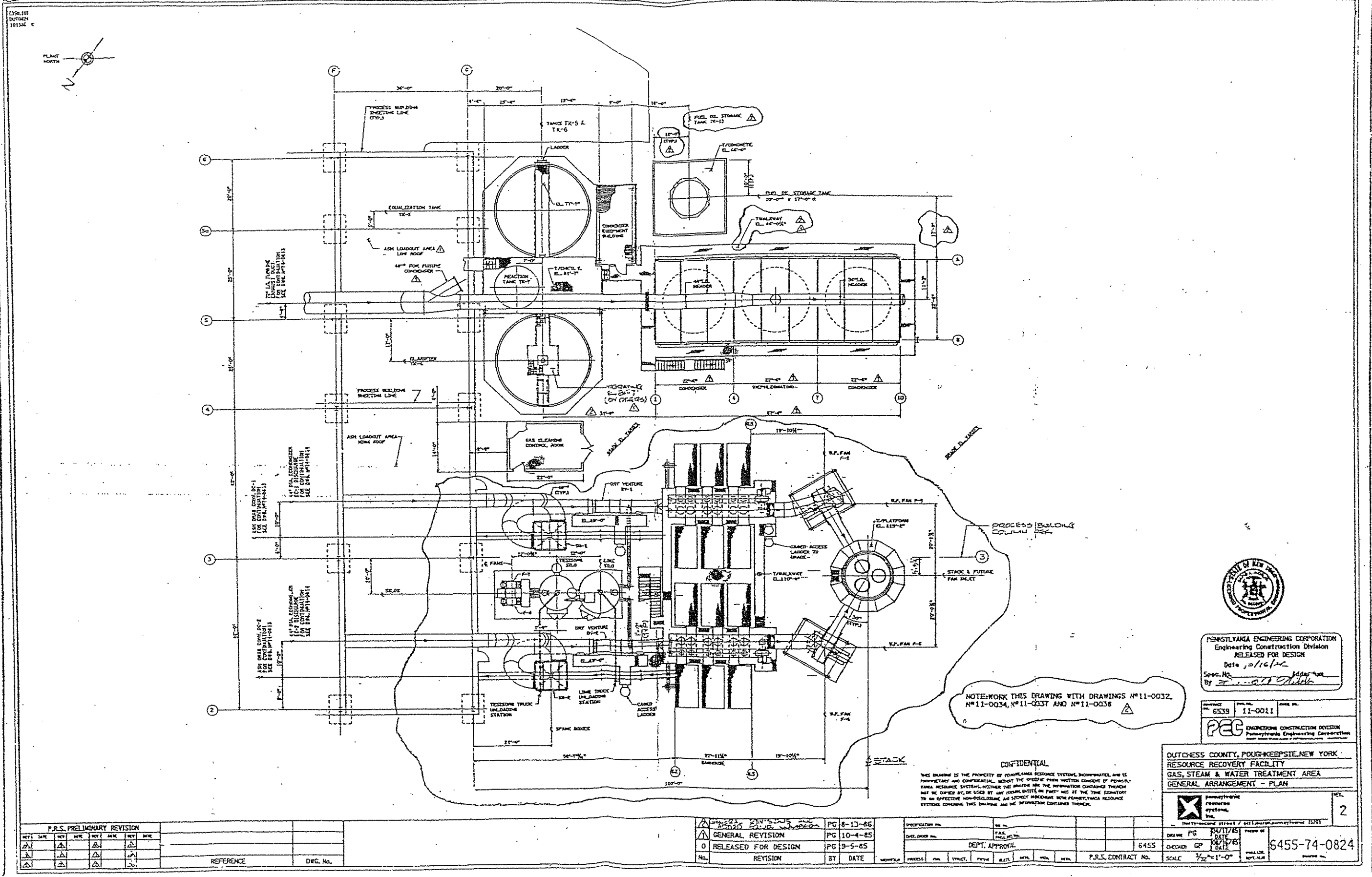
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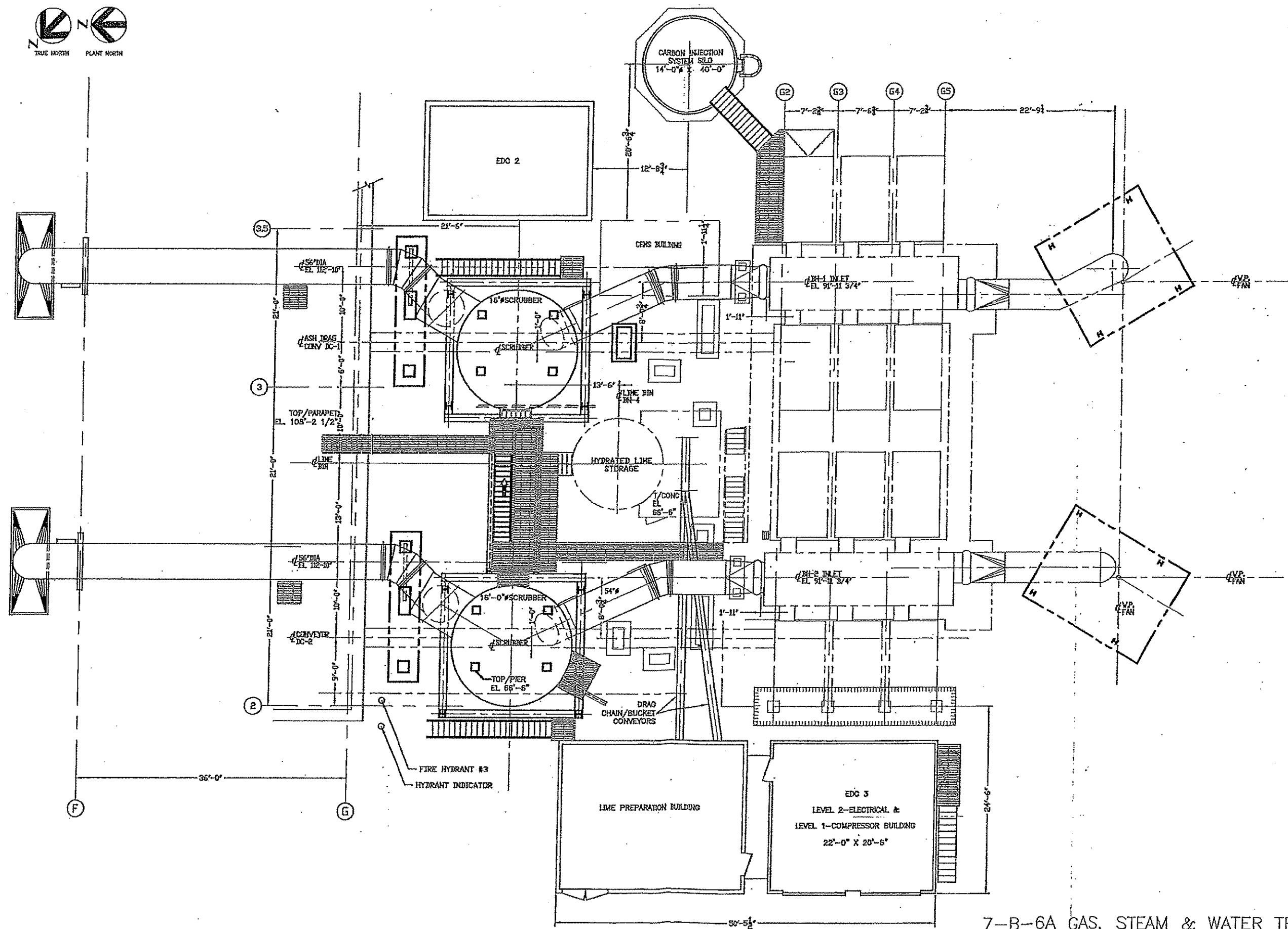
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2	RELEASED FOR DESIGN	GP	9-24-85

NO.	REVISION	BY	DATE
1	GENERAL REVISION	GP	10-15-85
2	RELEASED FOR DESIGN	GP	9-24-85

FIRE HOSE

FIRE EXTINGUISHER







## **APPENDIX 7-7 SUPPLEMENT TO APPENDIX 7-E**

### **SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN**

- APPENDIX 7-7-1 MANAGEMENT APPROVAL OF SPCC PLAN
- APPENDIX 7-7-2 EMERGENCY EQUIPMENT AND SORBENT MATERIALS SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN
- APPENDIX 7-7-3 MONTHLY TANK INSPECTION FORM
- APPENDIX 7-7-4 COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC - OPERATING PROCEDURE – UNLOADING DIESEL FUEL
- APPENDIX 7-7-5 COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC - FUEL OIL TRANSFER PROCEDURE
- APPENDIX 7-7-6 POTENTIAL SPILL CLEAN UP CONTRACTORS
- APPENDIX 7-7-7 FIRE PREVENTION INSPECTION REPORT
- APPENDIX 7-7-8 FIRE EXTINGUISHER REPORT
- APPENDIX 7-7-9 PLANT FIRE LOG
- APPENDIX 7-7-10 ENGINEER'S CERTIFICATION
- APPENDIX 7-7-11 CERTIFICATION OF APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

**APPENDIX 7-7-1**

**MANAGEMENT APPROVAL OF SPCC PLAN**

(Signed copy on file)

**SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN**

**COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC**

This SPCC Plan will be implemented as described herein:

Signature: \_\_\_\_\_

Name: Roy Chance

Title: Plant Manager

Date: \_\_\_\_\_

## APPENDIX 7-7-2

### EMERGENCY EQUIPMENT AND SORBENT MATERIALS SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC

Emergency Equipment	Location
Bagged Absorbent	Under Air Cooled Condenser
Absorbent Sheets	Warehouse
Containment Boom	
Soda Ash	Boiler Chemical Area
First Aid Equipment: Assorted Bandages, Bee Sting Kit Water Jel Burn Instant bandage Spray Antiseptic Spray First Aid Spray Eyewash Bottles Iodine Wipes Triple Antibiotic Cream Assorted Gauze Eye Dressing Adhesive Tape Ammonia Inhalents CPR Mask Disposable Aprons Latex Gloves Bio-Hazard Waste Bag Scissors	Five Locations:  Control Room Maintenance Shop Third Floor East Hallway Fifth Floor Conference Room Hallway Warehouse
HAZ-MAT Spill Kit: Drum Repair Kit: 6 stopper surface plugs, 2 ball plugs, 5 sheet metal screw plugs, T-bolt patch, duct tape, 8 dowels/stake/wedge set w/ felt, screwdriver, mallet, crescent wrench, pliers, barricade tape, 4 mini-stoppers, and instructions for use of kit. Floor Broom Polypropylene Shovel "Caution Chemical Hazard" Tape (2 rolls) Safety Boots (2 pairs) GFCI Protected Tri-cord PPE (2 Bags) : double matrix face shield, yellow full body Tyvex suit, white Tyvex suit, chemical gloves, full face respirator (North brand), 2 dual chemical cartridge filters (N7500-83) chemical goggles, flashlight, 3 "D" cell batteries	Boiler Chemical Area

## APPENDIX 7-7-3

### MONTHLY TANK INSPECTION FORM

COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC  
MONTHLY PETROLEUM BULK STORAGE  
TANK INSPECTION FORM

Petroleum Bulk Storage ID Number #3-005770  
Tank Number is T-13  
EAM Tank Equipment Number is TK-1  
Tank total and working capacity is 10,000 Gallons

Tank Storage Area:	Yes	No
Piping and storage tank free of leaks or rusting?	_____	_____
Containment dike free from cracks?	_____	_____
Drain valve closed?	_____	_____
Enclosure free of standing water?	_____	_____
Current fuel oil level? _____ Feet _____ Inches	_____	_____

Truck Unloading Area:	Yes	No
Containment dike free from cracks?	_____	_____
Enclosure free of standing water?	_____	_____

Explanation of items marked "No" above: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Any damaged or leaking equipment needs to be reported at once to the shift supervisor on duty and a work order to repair deficiencies can be generated. If conditions warrant other actions, such as emergency response, then the supervisor will follow the sites contingency plan (see O&M Manual sec. 7.0).

I have inspected the fuel oil tank consistent with the above items.

Inspector's Name \_\_\_\_\_

Inspector's Signature \_\_\_\_\_ Date of Inspection \_\_\_\_\_

M:\Operating Procedures\Fuel oil tank form.doc

## APPENDIX 7-7-4

### COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC OPERATING PROCEDURE UNLOADING DIESEL FUEL

PROCEDURE: AB-GL-16  
REVISION 1 02.16.02

#### 1. PURPOSE

To provide a safe, efficient method of transferring diesel fuel from a tanker truck into the bulk storage tanks at Covanta Hudson Valley Renewable Energy LLC.

#### 2. REFERENCES

None.

#### 3. PROCEDURES

##### PRECAUTIONS/LIMITATIONS

1. Protective equipment must be worn at all times during the unloading process.
2. Equipment to be worn includes the following:
  - a) Rubber gloves
  - b) Hard hat
  - c) Safety Glasses

##### PREREQUISITES

1. The fuel tank must have sufficient room to accept caustic.
2. The sight glass or level indicator must be operational.
3. Designated person must be in proper safety gear and in position to observe unloading of the fuel.
4. The truck must be parked in proper position for unloading.
5. 'Polly Pigs' must be available to contain any discharge outside the containment dike.

##### PROCEDURES

1. Check the invoice to ensure that it is the right chemical.
2. Ensure that all protective and spill equipment is located at the unloading point.
3. Ensure that the truck is parked in the proper place.
4. Ensure danger signs are posted at that connection point and nearby by pedestrian walkway.
5. Ensure that the hose is connected to the proper connection.
6. Inform the driver that he may begin pumping.

7. Monitor the caustic tank level sight glass or level indicator.
8. Monitor the unloading area for any leaks or spills.
9. When the tank is full or the required volume has been transferred, inform the driver to stop pumping.
10. Disconnect the caustic line.
11. Call the control room to inform them that the diesel fuel has been received.

## PERSONNEL EXPOSURE

In the event of a person being exposed by contact to caustic soda, immediately flush the area with large amount of water. Refer to the MSDS and contact appropriate medical help.

## SPILLS

Should a spill occur, immediately stop the Petroleum unloading process  
Inform shift supervisor. Contact one of the persons listed below

### **Roy Chance**

Plant Ext. 1-845-462-4650, ext. 128  
Home # 1-845-485-1898

### **Jack McCarthy**

ext. 144  
1-914-320-0089

## APPENDIX 7-7-5

### COVANTA HUDSON VALLEY RENEWABLE ENERGY LLC FUEL OIL TRANSFER PROCEDURE

PROCEDURE: OP-FO-02  
REVISION 1 02.20.02

#### 1. PURPOSE

To provide a safe and efficient method of transferring fuel oil from the bulk storage tank to vehicles or approved containers.

#### 2. REFERENCES

None.

#### 3. PROCEDURES

1. The vehicle must be parked in the proper position for loading fuel.
2. Absorbent mats or Polly pigs must be available to contain any leakage out of the loading area.
3. Remove the cap from the fuel tank.
4. Place the nozzle from the main tank into the vehicle's fuel tank.
5. Place the pump switch to the "ON" position.
6. Start filling the vehicle's tank.
7. When the tank is full, stop filling.
8. Place the pump switch to the "OFF" position.
9. Replace the fill nozzle on the hook.
10. Replace the cap on the fuel tank.

#### SPILLS

1. Should a spill occur, immediately stop the fuel oil transfer process.
2. Inform the Shift Supervisor, who will then alert the Emergency Coordinator and await further directions.

## APPENDIX 7-7-6

### POTENTIAL SPILL CLEAN UP CONTRACTORS\*

1. Clean Harbors Environmental Services, Inc.  
32 Bask Road  
Glenmont, NY 12077  
Ph: 518-434-0149
2. Environmental Products & Services  
Port of Albany  
Albany, NY 12202  
Ph: 518-465-4000
3. Luzon Environmental Services  
P.O. Box 1070  
Woodridge, NY 12789  
Ph: 845-434-7805
4. Matrix Environmental Technologies, Inc.  
16 Walker Way  
Albany, NY 12205  
Ph: 845-434-7805
5. West Central Environmental Corporation  
250 Watervliet Shaker Road  
Watervliet, NY 12189  
Ph: 518-272-6891
6. ONYX Environmental Services  
1 Eden Lane  
Flanders, NJ 07836  
Ph: 1-800-426-2382

\*Appearance of these companies on this list does not constitute endorsement.



**APPENDIX 7-7-7**

**FIRE PREVENTION INSPECTION REPORT**

Covanta Hudson Valley LLC FIRE PROTECTION SYSTEM MONTHLY CHECKLIST  
Form 7-7-7

**DELUGE WATER CANNONS**

NO	LOCATION ELEVATION	V/V OPERABLE?	RANGE OF MOTION OK?	HEAT TRACING HOOKED UP?	TEST FIRED AND WATER FLOW OK	COMMENTS
1	78'6" EAST FLOOR	YES / NO	YES / NO	YES / NO	YES / NO	
2	78'6" WEST FLOOR	YES / NO	YES / NO	YES / NO	YES / NO	
3	117'6" EAST HOPPER 1	YES / NO	YES / NO	YES / NO	YES / NO	
4	117'6" WEST HOPPER 2	YES / NO	YES / NO	YES / NO	YES / NO	
5	78'6" NORTH EAST	YES / NO	YES / NO	WET / DRY	YES / NO	
6	78'6" NORTH	YES / NO	YES / NO	WET / DRY	YES / NO	

**FIRE PROTECTION VALVES**

NO	LOCATION ELEVATION	V/V OPERABLE?	VALVE OPEN	LOCKED	VALVE SHUT	COMMENTS
1	WEST AGENCY BUILDING – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
2	EAST TIPPING FLOOR – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
3	NORTH WEST TIPPING FLOOR – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
4	NORTH WEST TIPPING FLOOR – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
5	WEST ASH AISLE – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
6	EAST ASH AISLE – PIV	YES / NO	YES / NO	YES / NO	YES / NO	
7	N. MAINT. SHOP QTY = 7	YES / NO	YES / NO	YES / NO	YES / NO	
8	S. MAINT. SHOP V/V TO LUBE OIL SPRINKLERS	YES / NO	YES / NO	YES / NO	YES / NO	

**FIRE HYDRANT INSPECTION**

NO	LOCATION ELEVATION	V/V OPERABLE?	CAPS FUNCTIONAL	SEMI – ANNUAL FULL FLOW TEST (Circle which month)	COMMENTS
1	MAIN ENTRANCE TO PLANT	YES / NO	YES / NO	MAY – OCTOBER	
2	EAST SIDE/ PARKING LOT	YES / NO	YES / NO	MAY – OCTOBER	
3	EAST OF ASH AISLE	YES / NO	YES / NO	MAY – OCTOBER	
4	NORTH OF TIPPING FLOOR	YES / NO	YES / NO	MAY – OCTOBER	
5	SOUTH WEST OF ASH AISLE	YES / NO	YES / NO	MAY – OCTOBER	

WATER FLOW ALARM - ROOF	YES / NO	PUBLIC WATER SUPPLY PRESSURE =	PSI
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**APPENDIX 7-7-8**  
**FIRE EXTINGUISHER REPORT**

Covanta Hudson Valley LLC FIRE PROTECTION SYSTEM MONTHLY CHECKLIST  
Form 7-7-8

Inspection Date \_\_\_\_\_

Inspected By \_\_\_\_\_

NO #	LOCATION	TYPE	SIZE LBS	PIN SECURE	GENERAL CONDITION	PROPER ID TAG	INSPECT TAG IN PLACE	TAG DATE	COVER IN PLACE	INSPECT INITIALS	COMMENTS
1	EAST BY STAIRS 66'6"	ABC	20								
2	SOUTHEAST MAINTN SHOP	ABC	20								
3	SOUTH #1 BA 66'6"	ABC	20								
4	#2 ELEC FC PUMP 66'6"	ABC	20								
5	DEMIN PUMPS 66'6"	ABC	20								
6	DEMIN AREA 66'6"	ABC	20								
7	W ENTRANCE DOOR 66'6"	ABC	20								
8	WEST STAIRWELL 66'6"	ABC	20								
9	WEST ASH ISLE 66'6"	ABC	20								
10	EAST ASH AISLE 66'6"	ABC	20								
11	EAST MAINT SHOP 66'6"	ABC	20								
12	WEST MAINT ROOM 66'6"	ABC	20								
13	WEST T/G ROOM 66'6"	ABC	20								
14	EAST T/G ROOM 66'6"	ABC	20								
15	Left Blank										
16	BAGHOUSE 66'6" (NORTH)	ABC	20								
17	COND PUMP RM 66'6"	ABC	20								
18	AIR EJECT ROOM 78'8"	ABC	20								
19	BH MCC RM 66'6"	CO2	15								
20	SOUTH CNTRL ROOM 78'6"	CO2	15								
21	SOUTH MCC RM 78'6"	CO2	15								
22	NORTH MCC RM 78'6"	CO2	15								
23	NORTH CNTRL RM 78'6"	CO2	15								
24	MOP BASIN 78'6"	ABC	20								
25	S/E #1 GRATE DRV 78'6"	ABC	20								
26	S/W ENTRANCE 78'6"	ABC	20								
27	N/W #2 COMBUSTER 78'6"	ABC	20								
28	CHEM. LAB 78'6"	ABC	10								
29	MAIN LOBBY 78'6"	ABC	20								
30	EAST TIPPING FLR 78'6"	ABC	20								
31	N/E TIPPING FLR 78'6"	ABC	20								
32	N/W TIPPING FLR 78'6"	ABC	20								
33	CAT 980 LOADER	ABC	10								
34	LUNCH ROOM 90'6"	ABC	10								
35	N/E ENTRANCE DR 90'6"	ABC	20								
36	EAST #1 BOILER 90'6"	ABC	20								
37	AIR COMP ROOM 90'6"	ABC	20								

**Covanta Hudson Valley LLC FIRE PROTECTION SYSTEM MONTHLY CHECKLIST**

Inspection Date \_\_\_\_\_

Inspected By \_\_\_\_\_

NO #	LOCATION	TYPE	SIZE LBS	PIN SECURE	GENERAL CONDITION	PROPER ID TAG	INSPECT TAG IN PLACE	TAG DATE	COVER IN PLACE	INSPECT INITIALS	COMMENTS
38	BCW ROOM 84'6"	ABC	20								
39	HEAD PULLEY BA 2 84'6"	ABC	20								
40	#1 ECONOMIZER 90'6"	ABC	20								
41	BETWEEN BLRS 90'6"	ABC	20								
42	S/W ENTRANCE 90'6"	ABC	20								
43	N/W SIDE OF PLANT 90'6"	ABC	20								
44	EAST FEEDCHUTE 2 90'6"	ABC	20								
45	NORTH FEEDCHUTE 105'6"	ABC	20								
46	N/E SIDE OF PLANT 90'6"	ABC	20								
47	N/E ENTRANCE 109'2"	ABC	20								
48	Left Blank										
49	S/E SIDE BLR 1 101'0"	ABC	20								
50	BLR BURNER 1 101'0"	ABC	20								
51	Left Blank										
52	S/W ENTRANCE 101'0"	ABC	20								
53	BLR BURNER 2 101'0"	ABC	20								
54	S/W ENTRANCE 110'8"	ABC	20								
55	S/H SOOT BLOWERS 2 110'8"	ABC	20								
56	1 ECONO OUTLET 110'8"	ABC	20								
57	S/H SOOT BLOWERS 1 110'8"	ABC	20								
58	S/E SIDE CHRGR FLR 117'6"	ABC	20								
59	CRANE CAB 117' 6"	ABC	10								
60	S/W SIDE CHRGR FLR 117'6"	ABC	20								
61	N/E ENTRANCE 115'0"	ABC	20								
62	DEAREATOR 115'0"	ABC	20								
63	FD SUCTION DUCT 121'9"	ABC	20								
64	S/W ENTRANCE 121'9"	ABC	20								
65	EAST WALL 121'9"	ABC	20								
66	WAREHOUSE	ABC	10								
67	ADMIN BUILDING SOUTH	ABC	5								
68	ADMIN BUILDING WEST	ABC	5								
69	ADMIN BUILDING NORTH	ABC	5								
70	SCALE HOUSE	Co2	15								
71	DCRRA BUILDING	ABC	20								
72	DCRRA DREAK ROOM	ABC	10								
73	C.E.M. BUILDING 66' 6"	ABC	5								

## Covanta Hudson Valley LLC FIRE PROTECTION SYSTEM MONTHLY CHECKLIST

Inspection Date \_\_\_\_\_

Inspected By \_\_\_\_\_

[illegible]

## APPENDIX 7-7-9

### PLANT FIRE LOG

DATE: \_\_\_\_\_

#### 1. Immediate Actions

- A. Location: \_\_\_\_\_
- B. Type: \_\_\_\_\_
- C. Electricity Isolated: \_\_\_\_\_
- D. Fire Boundaries Set: \_\_\_\_\_
- E. Fire Department Called: \_\_\_\_\_

#### 2. Supplemental Actions

- A. Fire Response Team at Scene: \_\_\_\_\_
- B1. Fire Under Control: \_\_\_\_\_
- B2. Fire Out of Control: \_\_\_\_\_
- C. Fire Out: \_\_\_\_\_
- D. Set Reflash Watch: \_\_\_\_\_
- E. Gas Test - LFL, H<sub>2</sub>S: \_\_\_\_\_
- F. Overhaul, Desmoke: \_\_\_\_\_
- G. Gas Test - LFL, H<sub>2</sub>S: \_\_\_\_\_
- H. Estimate Time of Repair: \_\_\_\_\_

NOTE: Control room operator will relieve shift supervisor in control room.  
Fire hose supplied by assistant operator; dry chemical supplied by ash operator.

COMMENTS:

## APPENDIX 7-7-10

### ENGINEER'S CERTIFICATION

I hereby certify that I have examined the above facility and being familiar with the provisions of 40 CFR Part 112, attest that, to the best of my knowledge, information and belief, this SPCC Plan has been prepared in accordance with good and accepted engineering practices and procedures. (Signed copy on file)

Leonard M. Grillo

Name of Registered Professional Engineer

\_\_\_\_\_  
Signature of Registered Professional Engineer

\_\_\_\_\_  
Date

56012  
Registration Number

New York  
State



## APPENDIX 7-7-11

### CERTIFICATION OF APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Facility Name: Dutchess County Resource Recovery Facility  
Facility Address: 98 Sand Dock Road, Poughkeepsie, NY 12601

- Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes \_\_\_\_\_

No   X  

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage area?

Yes \_\_\_\_\_

No   X  

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes \_\_\_\_\_

No   X  

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public water intake?

Yes \_\_\_\_\_

No   X  

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last five years?

Yes \_\_\_\_\_

No   X

CERTIFICATION:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. (Signed copy on file)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name (please type or print)

\_\_\_\_\_  
Date

## **8.0 CLOSURE PLAN**

### **8.1 STATUTORY REQUIREMENTS**

This closure plan is being submitted by the Dutchess County Resource Recovery Agency (owner), and Covanta Hudson Valley Renewable Energy LLC (operator) of the Dutchess County Resource Recovery Facility, located in Poughkeepsie, New York, in fulfillment of the requirements of its permit to operate a solid waste Management Facility under 6NYCRR Part 360. An O&M Manual was prepared pursuant to Section 360-3.3, application requirements for a permit to construct and operate. This update is submitted as required by Section 360-3.3(n)(3).

Subdivision 360-3.3(l) requires the submission of a closure plan that, in addition to the closure requirements of subdivision 360-1.14(w) identifies the steps necessary to close the Facility under various closure scenarios.

Subdivision 360-1.14(w) requires the owner or operator of any solid waste management facility to properly close that facility upon termination of use and to monitor and maintain that closure so as to minimize the need for further maintenance, and to prevent adverse environmental or health impacts such as contravention of surface water and groundwater quality standards, gas migration, odors, and vectors.

Subdivision 360-3.3(l) requires (1) notification in writing at least 180 days before the date the facility is expected to begin closure, with solid waste receipts being terminated within 30 days after the date that closure is expected to begin, (2) removal or disposal of all solid waste and ash residue within thirty days after receiving the final quantity of solid waste and in accordance with the approved closure plan, (3) completion of closure activities within 180 days of receiving the final quantity of solid waste, and (4) certification that the facility has been closed in accordance with the approved closure plan by an individual licensed to practice engineering in the State of New York.

## **8.2 CLOSURE SCENARIOS**

### **8.2.1 GENERAL**

Closure as used in this document is defined as any event which requires diversion of all solid waste normally received and processed at this facility to some other solid waste management facility and which results in the implementation of the procedures outlined in this plan. Short term stoppages of operations which do not require diversion of solid waste are not considered closures under this plan. This plan addresses three types of closures: short term, intermediate term, and long term or permanent closures.

### **8.2.2 SHORT TERM CLOSURE**

Short term closures consist of a cessation of MSW processing of less than 30 days duration, occasioned by planned or unplanned repairs or reconstruction but with specific dates of reopening, and which require the diversion of waste and the institution of specific procedures aimed primarily at safeguarding the facility during the closure.

During short term closure, appropriate procedures will be taken to assure that there will be no adverse environmental or health impacts during the closure and that all equipment will be secured in a manner that will allow successful and rapid restart at the end of the closure. Basic utility services and full staffing will be maintained. Supplies of chemicals, fuels, and other operating materials will be kept in their normal storage containers. The pit will be unloaded and the material will be loaded on transfer trailers at the loadout aisle and disposed of at a permitted facility in accordance with the provisions of the Service Agreement.

### **8.2.3 INTERMEDIATE TERM CLOSURE**

Intermediate term closures consist of closures generally more than 30 days but less than one year in duration, and with a specific plan to reopen at some future date after the completion of repairs and/or modifications. Intermediate term closures may require the reissuance or modification of the facilities permit to operate and may require approval by the NYSDEC before operations resume.

During an intermediate term closure, appropriate measures will be taken to assure that there will be no adverse environmental or health impacts during the closure. In addition, all equipment will be secured so as to avoid damage to it during the closure and to permit successful restart at the end of the closure. This may include implementation of specific layup procedures for equipment like boilers, the turbine generator, the air pollution control system, and motor drives in general. Basic utility services will be maintained, and stores of chemicals, fuels and other supplies will be kept in the normal storage containers unless they are subject to deterioration or spoilage. Key staffing will be maintained, but some personnel may be furloughed or assigned to other duties.

Unless the closure is forced, acceptance of solid waste may be terminated sufficiently in advance of the termination of processing so that all solid waste in the storage pit can be processed. At that point, the closure procedures in this plan will be implemented. Closure will be completed when all of the activities in the paragraph above have been executed.

In case of a planned closure, the Agency will notify the NYSDEC in writing at least 180 days before the date the facility is expected to close. In case of a forced closure, the Agency will notify the NYSDEC within 24 hours of the events forcing the closure and will advise the Agency of the anticipated length of the closure and the expected impact on solid waste management in the area served by the Facility.

Within seven (7) days of a forced closure, or as required by NYSDEC requirements, all solid waste in the storage pit and all ash stored on-site will be removed from the site and disposed of at an approved disposal facility.

When the closure procedures have been completed, the Agency will submit to the NYSDEC a certification by an engineer licensed to practice in the State of New York that the Facility has been closed.

The owner or operator must complete closure activities in accordance with the approved closure plan within 180 days after receiving the final quantity of solid waste.

#### 8.2.4 LONG TERM CLOSURE

Long term closure or termination may include situations where the facility has not or will not receive solid waste for more than one year, where the permit has expired and renewal has been denied, or where closure is the result of an order of the commissioner (of NYSDEC) or of a court.

Long term closure will include all appropriate measures to assure that there will be no adverse environmental or health impact from the closure. Long term closure may or may not entail dismantling of equipment or structures, if it is contemplated that the facility will reopen after the closure, or it may involve partial dismantling or total dismantling and restoration of the site to a natural condition. Specific procedures will depend on what future use is contemplated for the site.

In case of a planned closure, the Agency will notify the NYSDEC in writing at least 180 days before the date the facility is expected to close. In case of a forced closure, the Agency will notify the NYSDEC within 24 hours of the events forcing the closure and will advise the Agency of the anticipated length of the closure and the expected impact on solid waste management in the area served by the Facility.

Within seven (7) days of a forced closure, or as ordered by NYSDEC requirements, all solid waste in the storage pit and all ash stored on-site will be removed from the site and disposed of at an approved disposal facility.

When the closure procedures have been completed, the Agency will submit to the NYSDEC a certification by an engineer licensed to practice in the State of New York that the Facility has been closed.

The owner must complete closure activities in accordance with the approved closure plan within 180 days after receiving the final quantity of solid waste.

## **9.0 ASH RESIDUE MANAGEMENT PLAN**

The Facility receives and processes MSW by combustion. As the MSW passes through the combustion process, residues are produced at various stages. The first residue consists of the fines, which fall through the air holes in the combustor barrel. These are called siftings. The next residue stream is the ash that remains after combustion in the main combustor and the afterburner grate. The ash is referred to as bottom ash. Some solid matter is entrained with the combustion gases and carried up through the boiler and into the emissions control system. The particles are removed from the combustion gas stream in the emissions control system, and these are generally referred to as fly ash. The fly ash also includes lime added in the emissions control system. Fly ash is combined with bottom ash just prior to being loaded into trailers for disposal at a landfill.

Ferrous metals are extracted from the bottom ash by means of a magnetic separator and are delivered to a secondary metals dealer for recovery and reuse.

The Agency is mandated to cooperate in the achievement of the recycling goals of the New York State Solid Waste Management Plan. A mandatory recycling ordinance has been promulgated pursuant to Local Law No. 4 enacted by the County Legislature. Under this ordinance, local municipalities have to require the separation of recyclables by residents and the separate collection of these recyclables and delivery to a materials recovery facility or other central collection point. The materials most affected by this ordinance are paper, glass, and ferrous metals. Some recycling is already in place as a result of the New York State Returnable Container Act.

The following paragraphs of this section describe how various product streams are handled in the Agency's integrated solid waste management system. Management of the ash residue is described in the Ash Residue Management Plan in accordance with the requirements of 6 NYCCR Part 360-3.5.

## **9.1 DESCRIPTION OF ASH RESIDUE STREAMS**

### **9.1.1 SIFTINGS**

Siftings consists mostly of silica (glass) and some molten aluminum. Siftings drop into a water-filled tank below the combustor barrel. They are retrieved by a drag flight siftings conveyor and discharged into the main quench tank.

### **9.1.2 BOTTOM ASH**

The combusted material drops from the lower end of the combustor onto a horizontal traveling burnout grate and then drops off the burnout grate into the main quench tank. A drag flight conveyor scoops up material, which has settled to the bottom of the tank, and pushes it up an incline ramp to allow moisture to drain from the residue.

### **9.1.3 BOILER FLY ASH**

Three sets of ash hopper in boiler, one under the superheater section, one under the convection section, and one under the preheater-economizer section, collect boiler fly ash settling out in that section. Each hopper ends in a double-valved cone and a duct carrying the ash down to the quench trough.

### **9.1.4 EMISSIONS CONTROL SYSTEM FLY ASH**

Fine particulate matter carried through the boilers by the combustion gases are separated from those gases in the emissions control system. The first unit of that system is a SDA. The gases then pass through the SDA, where slurried hydrated lime is added to the gases. After the gases pass through the SDA, PAC is injected into the flue gas for controlling mercury and total dioxins/furans. The fine particulates, lime, lime reaction product, and PAC are then removed in a fabric filter (baghouse). The material is caught on the fabric surfaces and then removed by reversing the airflow through the fabric, causing the accumulated material to drop into a cone hopper at the bottom of each filter module. From there, it is moved by a series of



screw conveyors to the ash loadout area, where it is mixed with sufficient water to form a non-dusting paste. It is then added to the bottom ash before being discharged into the ash residue trailers.

## **9.2 ASH CHARACTERISTICS**

Ash testing was conducted during the February 1989 acceptance testing of the Facility. Limited testing was conducted again in May 1989 and in December 1989. Results of these tests have been incorporated into the NYSDEC publication "Ash Residue Characterization Project". Currently, the ash is tested quarterly for volatile matter and semi-annually for certain TCLP metals in accordance with instructions from NYSDEC dated February 21, 1996 and Subparts 3.5(c) and (d) of 6NYCRR Part 360.

## **9.3 ASH RESIDUE MANAGEMENT PLAN**

### **9.3.1 PREVENTION OF UNCONTROLLED DISPERSION**

The primary means of preventing uncontrolled dispersion of ash residue are containment and humidification. Bottom ash does not present a dust problem due to the fact that it has been immersed in water in the quench tank and remains in a moist condition until its disposal at the landfill. Fly ash represents a potential dust problem because it consists of fine particulates that have, at some point in the process, been entrained in a gas stream. Fly ash is therefore handled in enclosed, gasketed conveyor systems until it is moistened in a pug mill prior to its mixing with the bottom ash. The fly ash leaving the pug mill is in a paste like condition and does not represent a dust problem.

To minimize human exposure, workers in the ash handling area are issued facemasks while on duty if conditions warrant.

All areas in which ash residue is handled or transferred from one place to another are paved with concrete and provided with floor drains. These drains lead to the plant industrial waste sump. From this sump, wastewaters are pumped to the Facility's wastewater treatment plant. Treatment consists of the addition of a flocculent, coagulation and sedimentation. Sludges are

returned to the quench tank. The clarified effluent is also returned to the process as makeup to the quench tank. Discharge of wastewater to either surface water drainage structures or onto unpaved areas, where it could contaminate ground waters, is not permitted. During the week, trailers are hauled to the landfill not more than 24 hours after they are loaded. Since the landfill is not open on Sundays or holidays, trailers are held on those days and hauled on the next weekday.

### 9.3.2 STORAGE

The Facility does not provide for storage of ash residue after generation. Ash residue is continuously loaded onto residue trailers in the ash handling area. When the trailers are full, they are removed and staged under an ash trailer canopy area which was constructed on the North side of the facility outside of the tipping hall. If this area is filled trailers may be staged on a section of the tipping floor. There may be times as in the event of inclement weather where there are insufficient trailers on site for ash storage and it may be necessary to store ash in the transfer area to be loaded into trailers when they do arrive on site. While on the tipping floor, trailers are allowed to drain so as to remove excess moisture and prevent drainage while in transit to the landfill. Drainage is collected in floor drains and treated as wastewater.

During the week, sufficient empty trailers are kept in reserve to permit continued operations for about 24 hours at full capacity. On Saturdays and on days preceding holidays, extra trailers are provided so that the Facility can continue operations while the landfill is closed.

All ash residues are handled in watertight, leak resistant trailers, designed to allow free liquid to drain from the ash residue during the loading and staging process. Loaded trailers are covered with tarpaulins to prevent rainwater filtration or airborne emissions.

### 9.3.3 TRANSPORTATION

The Agency has entered into two contracts for furnishing trailers and tractors to haul ash residue from the facility. Royal Carting Company of Hopewell Junction, New York, will haul ash residue to Ontario County Landfill in Stanely, New York. Riccelli Enterprises of Syracuse, New York will haul ash residue to Delaware County Landfill in Delhi, New York; Madison

County Landfill in Wampsville, New York; and Steuben County Landfill in Bath, New York. The contracts provide that ash residue trailers must be watertight and leak resistant and must be designed and constructed such that any closures at or near the bottom are sealed to prevent leakage under normal transportation conditions. Closures are fitted with gaskets that are not deteriorated by the ash. Vehicles are inspected at the start of each trip to ensure that they are in proper condition for hauling the ash. All trailers are equipped with tarpaulins to prevent the surface of the load from becoming dried during transport, thereby causing possible dust emissions.

#### **9.3.4 DISPOSAL**

The Agency has entered into contracts with Ontario County Landfill in Stanley, New York, for up to 26,000 tons or 50% of the ash residue produced by the Agency's facility each year; Delaware County Landfill in Delhi, New York for up to 5,000 tons of ash residue per year; Madison County Landfill in Wampsville, New York for up to 12,532 tons of ash residue per year; and Steuben County Landfill in Bath, New York for up to 12,000 tons of ash residue per year. The landfills are permitted by NYSDEC to receive ash residue from the incineration of household solid waste and are to use it as alternative daily cover under special conditions of their Part 360 permit. The ash residue is used in cells that are designed and constructed with a double composite liners and separate leachate collection systems to permit monitoring of the leachate generated from these cells. The condition of the ash residue must be such that it can support the weight of vehicles used at the landfill to distribute the material.

### **9.4 TESTING REQUIREMENTS**

#### **9.4.1 GENERAL**

In accordance with requirements of Subdivision 380-3.5(c), and instructions from NYSDEC ash residue will be tested quarterly for volatile matter and semi-annually for toxicity characteristic. Testing will be performed on combined ash residue, since the Facility process combines bottom ash and fly ash prior to its leaving the Facility as defined in the USEPA guidance.

Test results will be submitted to NYSDEC no later than 60 days after receipt of the results by the Agency and will be incorporated in quarterly and annual reports to NYSDEC. Quarterly and semi-annual samples will be sent for analysis to an independent laboratory acceptable to NYSDEC for the specific procedures required to be performed. If any ash residue sample contains in excess of 15% volatile matter, another sample will immediately be obtained and analyzed. If this sample also contains in excess of 15% volatile matter, the cause of this exceedance will be investigated and a report (see Form 9.4.1-1) on the probable cause and a schedule of actions to reduce volatile matter to less than 15% as expeditiously as possible will be submitted to NYSDEC within 30 days after receipt of the test results.

Form 9.4.1-1

NOTIFICATION TO DUTCHESS COUNTY RESOURCE RECOVERY AGENCY

Date:

Time:

Reason for Notification: 360 Solid Waste Permit

Title V Requirement: N/A

360 Solid Waste Requirement: Ash Test Results > 15% Volatiles

Stormwater Permit: N/A

**Description of Event:**

**Cause of Event:**

**Corrective or Preventive Measures Taken:** (check and initial those actions taken)

\_\_\_\_\_ Inspect the underfire and overfire airflow damper operation to ensure proper combustion, air distribution and flow.

\_\_\_\_\_ Rotary Combustor radial and axial seal inspection.

\_\_\_\_\_ Increase the ash discharge inspection frequency. The Auxiliary Operator will report the condition of the ash discharge to the Control Room Operator.

\_\_\_\_\_ The Shift Supervisor will also inspect the ash discharge on a more frequent basis and provide feedback to the Control Room Operator.

\_\_\_\_\_ Check the calibration of the combustor tachometer to ensure that the control panel read-out accurately reflects the actual speed of the combustor.

\_\_\_\_\_ Evaluate excessive  $\text{Ca(OH)}_2$  usage.

\_\_\_\_\_ Other

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**Estimated Date and Time to Return to Normal Operations:**

Submittal Date: \_\_\_\_\_

Agency Representative: \_\_\_\_\_

#### 9.4.2 SAMPLING AND ANALYSIS PLAN

The purpose of an ash sampling and testing protocol is to assure that the sample obtained is representative of the MSW being incinerated at the Facility and that the data being obtained is comparable with data being obtained at other MSW incinerators in the State of New York.

The approved protocols reflect the general objectives of NYSDEC applied to the specific conditions at the Facility. The facility incinerates MSW, including some commercial and non-hazardous industrial wastes, and recovers energy in the form of steam and electricity. Although MSW is heterogeneous in nature, industrial and residential development is distributed randomly throughout the area served by the Facility. It is, therefore, not significant to differentiate between MSW originating in various sections of the County. The amount of waste received is greatest on Monday and Tuesday, slacks off on Wednesday, and picks up a little on Thursday and Friday, with only small amounts received on Saturday.

Once the MSW is dumped into the pits, it is constantly mixed, so that the waste being incinerated at any one time and the ash residue from that waste cannot be said to originate from any specific section of the service area or from any one source.

The sampling and analysis plan was developed to conform as much as possible to the statewide protocol being developed by NYSDEC. Sampling will be performed during the day shift whenever possible since there are sufficient personnel available during this shift to carry out the sampling program. There are no differences in operation between shifts, nor are there any differences in the MSW being incinerated. However, the level of staffing of the other shifts is much lower, and is not sufficient to carry out the sampling program, so that additional personnel are required to carry out sampling during those shifts.

Table 9.4.2-1 is a summary of the approved sampling and analysis plan.

**TABLE 9.4.2-1**  
**SUMMARY OF ASH SAMPLING REQUIREMENTS**

<u>Type of Test</u>	<u>Toxicity Characteristic</u>	<u>Volatile Matter</u>
Frequency	Semiannual	Quarterly
No. of Composites	10	3
Consecutive Sampling Days	5	3
No. of Daily Grab Samples		2 x 8
Interval	60 minutes	15 minutes
Total Sampling Time	2 x 8 hours	2 hours
Weight of each Grab Sample	Approx. 20 lb.	Approx. 10 lb.
Collection Method	Collection Box	Shovel
Weight of Composite Sample	3 lb.	3 lb.
Ash Lime Feed	on	off
Sample Preparation		TCLP
Analytical Parameters	Lead	% Total Solids
	Cadmium	% Volatile
Replicates	2	1



### 9.4.3 SEMI-ANNUAL ASH SAMPLING PROTOCOL – TOXICITY CHARACTERISTIC

Two sets of eight grab samples will be taken each day for five days. The eight samples will be taken every 60 minutes over an eight-hour time period, each of the five days. Should the plant be down when the sampling is to occur, the sample will be taken on the next day the plant is in normal operation. If the plant is forced into an outage less than 48 hours, the sampling will be resumed with that (interrupted) day's sampling being repeated after the plant regains normal operation.

The eight grab samples gathered each day will be composite and reduced into two daily composite samples. The composite samples will be further reduced to one 3-lb. Sample and two 3-lb. replicates. The sample will be delivered to a lab, which will analyze the sample for toxicity characteristics. The replicate samples will be saved at the plant until the test results are accepted.

The sampling will take place where the ash conveyor discharges to the ash truck, after the ferrous removal system, and just prior to the ash leaving the plant. The ash sample is caught in a collection box directly from the ash conveyor belt.

The sampling sequence is as follows:

1. Notify the operations supervisor that you are about to start ash sampling and give an estimate of time involved.
2. Put on proper safety equipment; hardhat, gloves, respirator, eye goggles.
3. Set up ladder and scaffolding on ash truck.
4. Position collection box under ash conveyor discharge until sufficient ash is collected (~20 lbs) to fill box.
5. Take sample to processing area.
6. Weigh entire sample in container and record weight after subtracting out weight of container. Record weight on Form 1 (see the form on the following page).
7. Pour sample onto a 3/8-inch screen.

**FORM 1**  
**ASH SAMPLING RAW DATA**

Sample Date	Time	WT of Box and Sample	WT of Box	WT of Sample	WT of Discarded Material	Sampled By	Supervisor

Total Material Removed \_\_\_\_\_

Sample 1

Sample 2

Sample 3

WT of Composite Jar

WT of Jar

Sample ID


Sample 1 will be sent for testing and Samples 2 and 3 will be held in storage

8. The sample will then be sifted through the 3/8-inch screen. Any material not passing through the screen will be processed in a mechanical crusher. If a mechanical crusher is not available then material will be subjected to three blows with a five lb. sledgehammer dropped from one foot above the material. If a piece does not break after three blows of the hammer, the solid material remaining will be removed. During subsequent sampling, any removed metals and non-crushable material will be added to the metals container. At end of daily sampling, the container will be weighted, the weight recorded and then the contents discarded.
9. Repeat sampling every 60 minutes over an 8-hour period until a total of 8 samples have been collected, weighed and added to the composite container.
10. The 8-hour composite will then be well mixed, using a 5.5 cu. ft. cement mixer and then be coned and quartered into three 3-lb samples.
11. Place samples in a container with a lid, label it and store it in a clean, dry, secure area. Subsequent composite samples will be stored in the same manner.
12. The sample collection will be repeated each day for five days, thus generating three sets of ten, 3-lb, composite samples.
13. Have one set of composite samples delivered to a laboratory (within 3 days), which has been determined to be acceptable to the NYSDEC.
14. The plant will retain the replicate samples until the results are accepted.
15. Results will be reported to the NYSDEC within 60 days after sample collection.

#### 9.4.4 QUARTERLY ASH SAMPLING PROTOCOL – PERCENT VOLATILE TESTING

Eight 10-lb samples will be taken during the designated sampling day of that quarter. Samples will be taken every 15 minutes over a 2-hour period during the first shift for a total of eight samples. Sampling will occur three consecutive days per quarter. Should the plant be down when the sampling is to occur, the sample will be taken on the next subsequent day the plant begins operation. The 8 samples will be composites into one analysis sample with one replicate.

The composites sample will be delivered to a laboratory (which has been determined to be acceptable to the NYSDEC) and analyzed for % volatiles in accordance with test procedures for “Total Fixed and Volatile Solids in Solid and Semisolid Samples” as

published in "Methods for Chemical Analysis of Water and Wastes", USEPA-600/4-79-020, March 1979, revised March 1983. The replicate sample will be saved until the test results are accepted.

The sampling will take place where the ash conveyor discharges to the ash truck. This is after the ferrous removal system just prior to the ash leaving the plant. The ash sample is caught in a shovel directly from the ash conveyor belt. The shovel is wide enough to catch the ash from the full width of the belt.

The sampling sequence is as follows:

1. Notify the operations supervisor that you are about to start ash sampling and give an estimate of time involved.
2. Put on proper safety equipment; hardhat, gloves, eye protection.
3. If lime is being fed to the ash, it will be stopped at least 10 minutes prior to sampling.
4. Set up ladder on ash truck.
5. Position shovel under ash conveyor discharge until sufficient ash is collected (~10-lbs) to fill shovel.
6. Pour shovel's contents into container and take sample to processing area.
7. Weigh entire sample in container and record weight after subtracting out weight of container. Record weight (see Form 2 on the following page).
8. Pour sample onto a 3/8-inch screen.
9. The sample will then be sifted through the 3/8-inch screen. Any material not passing through the screen will be processed in a mechanical crusher. If a mechanical crusher is not available then material will be subjected to three blows with a five lb. sledgehammer dropped from one foot above the material. If a piece does not break after three blows of the hammer, the solid material remaining will be removed. During subsequent sampling, any removed metals and non-crushable material will be added to the metals container. At end of daily sampling, the container will be weighted, the weight recorded and then the contents discarded.

FORM 2

ASH SAMPLING RAW DATA FORM FOR VOLATILES

Sample Date	Time	WT Sample Box	WT of Box	WT of Sample	Sample By

Total WT of Materials Removed \_\_\_\_\_

WT of Composite Sample and Jar \_\_\_\_\_

WT of Jar \_\_\_\_\_

WT of Composite Sample \_\_\_\_\_

Sample ID Number \_\_\_\_\_

10. Repeat sampling every 15 minutes over a 2-hour period until a total of 8 samples have been collected, weighed and added to the composite container.
11. Sample volume (~80-lbs.) will then be reduced using a riffler or the cone and quarter method to obtain an approximate 3 lb. Sample for that day.
12. Place samples in sample bottles, close covers securely, seal bottles with tape and label with the sampling date and the initials of the sampler.
13. Have the composite sample delivered to a laboratory, which has been determined to be acceptable to the NYSDEC.
14. Samples will be analyzed for percent volatiles in accordance with test procedures for "Total Fixed and Volatile Solids in Solid and Semisolid Samples" as published in "Methods for Chemical Analysis of Water and Wastes", USEPA-600/4-79-020, March 1979, revised March 1983.
15. The plant will retain the replicate samples until the results are accepted.
16. The amount of metals produced during the testing period will be determined on a percentage basis from the amounts of ash and metals produced over a four-week period.
17. Results will be reported to the NYSDEC on a quarterly basis.

#### 9.4.4 ANALYTICAL PROCEDURES

##### 9.4.4.1 TOXICITY CHARACTERISTICS

In order to determine if the ash exhibits the toxicity characteristics, samples will be tested pursuant to the Toxicity Characteristic Leaching Procedure (TCLP, Method 1311 of SW-846) use of the TCLP generates an extract, which is then analyzed for TC contaminants.

As required by the publication "Guidance for the Sampling and Analysis of Municipal Waste Combustion Ash for the Toxicity Characteristic" (EPA530-R-95-036), the ash was initially tested for both inorganic and organic TC contaminants listed in Exhibit 1 of the guidance document, List of TC Contaminants in 40 CFR §261.24. After determining that the ash contained only insignificant or undetectable levels of most TC Contaminants, NYSDEC on October 18, 1995 authorized that the analysis of the TCLP extract be limited to only cadmium and lead.

Accordingly, the TCLP extract is now analyzed as shown below:

<u>Parameter</u>	<u>Preparation Method</u>	<u>Analytical Method</u>
Lead	3010	6010
Cadmium	3010	6010

Results are reported in mg/L of TCLP extract.

#### 9.4.4.2      VOLATILE MATTER

Testing is performed in accordance with the test procedures for "Total Fixed and Volatile Solids in Solid and Semisolid Samples" as published in "Methods for Chemical Analysis of Water and Waste", (EPA-600/4-79-020) March 1979, revised March 1983, and the requirements of 6NYCRR Part 360, subdivision 360-3.5(c).

#### 9.4.5      QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

The responsible laboratory is to produce analytical data in a manner that meets a strict QA/QC procedure. The particular laboratory used to analyze the samples will include the follow items as a minimum requirement:

- A. A copy of their QA/QC program along with their results to the Agency.
- B. The laboratory must be certified for the parameters of interest through the New York State Department of Health Environmental Laboratory Approval Program (ELAP).
- C. Samples must be extracted and analyzed within the holding times given in Method 1311.
- D. The laboratory must provide the target detection limits for all the TCLP compounds prior to sample collection.
- E. The results reported by the laboratory must include the pH data obtained during step 7.1.4 of the TCLP, the number of the extraction fluid used, and the pH recorded at step 7.2.14 (final pH of the extract).
- F. The following laboratory QC should be reported along with the sample results; one matrix spike must be performed for the metals; one duplicate analysis of the TCLP extract for metals. TCLP extraction blank results.

#### 9.4.6 DATA EVALUATION AND REPORTING

All data collected as a result of this program will be reported to the NYSDEC no later than 90 days after sample collection [6 NYCRR 360.3.5(c)(4)]. The report will include all analytical results including blanks, spikes, duplicates and other appropriate QA/QC information. The report will also include a full report of the sample collection effort, including any deviation from the Plan.

##### 9.4.6.1      TCLP DATA EVALUATION

Since testing of TCLP extracts was initiated at the Facility, a high percentage of the test results (in excess of 75% for the contaminants still being tested) are reported as “non-detects” and all of the measurable levels have been at or below the regulatory levels. There is therefore no need to apply the statistical formulas of SW-846 as modified in the guidance document to reach a determination of classifying the ash residue as not hazardous.

If sufficient positive results are obtained, the statistical methods of the guidance document will be applied.

#### 9.5 OTHER PROCESS RESIDUE

##### 9.5.1 PROCESS REJECTS

Items such as large household appliances or pieces of furniture are occasionally collected with household wastes and discharged into the storage pit by the carters. These items would cause jams in the charging hopper and feed rams and must therefore be removed from the pit. Other items that must be removed are materials that could damage the processing equipment or cause stack emissions in excess of permit limits. Occasional automobile tires will be processed, but loads of tires will be rejected as unacceptable waste. Process rejects are placed in roll-off containers at the east end of the storage pit and are carted away for disposal at the landfill.



## 9.5.2 BYPASSED WASTE

Bypassed waste is acceptable waste delivered or designated for delivery that cannot be processed because of insufficient processing capacity, either as a result of excess waste generation or because of reduced processing capacity due to a scheduled or unscheduled outage. Waste removed from the storage pit due to an extended outage is also considered bypassed waste. Bypassed wastes are disposed at the landfill.

## 9.5.3 RECOVERED MATERIALS

The Facility process includes a grizzly separator and a magnetic separator in the ash handling area. The grizzly separates out pieces larger than 10 inches in at least one direction. These pieces are mostly metallic. The magnetic separator removes smaller ferrous metal pieces from the residue, mostly steel cans. Approximately 7,000 tons of ferrous and grizzly metal are recovered annually. Metals are currently hauled to a local scrap dealer, who pays a nominal price or accepts them at no cost/no payment.

## 9.5.4 RECYCLABLES

The Agency is committed to take all feasible steps toward achievement of the New York State Waste Management Plan goals. The Agency has retained a staff-recycling director who is responsible for coordinating and implementing recycling activities throughout the county.

Currently, the Agency is maintaining a drop-off station at the Facility, where individual residents can deposit glass, cans, and plastics. The Agency has successfully marketed these materials to ultimate users.

Increased levels of recycling are not believed to constitute a threat to Facility operations. The waste stream components most likely to be removed by source separation or curbside collection are ferrous metals, glass, and certain types of paper. As these materials are recovered in increasing quantities, the most immediate effects will be beneficial to the Facility operations by reducing the inert fraction of the waste stream and consequently the amount of residue requiring disposal. Maintenance requirements should also benefit.

The impacts of increased levels of paper recycling are difficult to assess. A substantial portion of the most marketable paper grades, bundled corrugated cardboard and computer paper are already being recycled through private sector activities. A significant fraction of newsprint is also being recycled, although this product has potential for increased levels of recycling.

## **10.0 EMISSIONS CONTROL SYSTEM**

### **10.1 INTRODUCTION**

The emissions control system consists of a SDA, PAC injection system, baghouse, flyash removal system, and Continuous Emission Monitoring (CEM) system. The SDA controls acid gas emissions [hydrogen chloride (HCl) and sulfur dioxide (SO<sub>2</sub>)], the PAC controls mercury and total dioxins/furans, and the baghouse controls particulate emissions. The flyash removal system transports the collected particulate matter for processing and off-site disposal. The CEM system monitors flue gas emissions both before and after the emissions control equipment. There are two (2) emission control trains, one for each combustion line.

### **10.2 DESCRIPTION OF EMISSION CONTROL SYSTEM**

Separate identical emission control systems serve each of the two combustion trains. Each system consists of a SDA, a PAC injection system, a Zurn six module, reverse air baghouse, a flyash screw conveyor system, and a CEM system. Combustion produced gases from the economizer pass into the SDA and slurried lime is injected into the flue gas. The lime neutralizes the acid gases (HCl and SO<sub>2</sub>). After leaving the SDA, PAC is injected into the flue gas to absorb mercury and total dioxins/furans. The flyash, lime, lime products, and the PAC form a cake buildup of material on the baghouse bags. The flue gas proceeds to the baghouse and passes through the cake layer on the baghouse bags where additional neutralization of the acid gases occurs. The cleaned gases flow through the baghouse outlet manifold to the inlet of the induced draft (ID) fan and are exhausted through the stack flue to the atmosphere. Particles collected on the bags are removed by reversing the airflow through the bags and fall into hoppers located underneath the baghouse. This flyash is transferred to the flyash conditioners through screw conveyors. The flyash is combined with bottom ash on the load-out conveyor and then emptied into an ash hauling truck.

### **10.3 OPERATION OF THE SDA SYSTEM AND PAC SYSTEM**

Flue gas from each incinerator economizer is routed through a scrubber, SDA, where spray-atomizing nozzles allow for gas cooling and acid gas control with reagent (lime slurry) injection. Air, water, and lime slurry control valves and transmitters are stationed in the scrubber

penthouses while hopper dust handling equipment and pushbutton stations are installed at each scrubber base. In the duct between the SDA outlet and existing fabric filter, PAC is injected into the air stream for additional acid gas (mercury) and total dioxins/furans control. A silo stores the PAC with the system's fluidizing and transport equipment within its base enclosure. The lime preparation building with a mezzanine level houses the water cooling pumps, lime slurry reagent mix tank and pumps, operator interface control panel, and other related valves and system components. From the lime silo, drag conveyors transfer lime to the two feeders on top of the lime slurry reagent mix tank. A two-story EDC-3 building consists of the lower level housing two 150 horsepower (HP) air compressors and an air receiver tank, supplying SDA atomizing air and system instrument air. The upper level of EDC-3 includes the main control panel with operator interface terminal and system motor control centers (MCC). Generally, MCC #5A supplies power for the 480 VAC equipment of SDA #1, MCC #6A for SDA #2, and MCC #8A includes common and backup equipment for each SDA. Refer to McGill AirClean drawing 41113-0701 for equipment locations and drawing 41113-0100 for system process and instrumentation diagrams.

The operator can monitor/control the systems through control panel door mounted Panelview operator interface terminals in the lime preparation building, EDC-3, and in each scrubber penthouse. In addition, there is an operator interface computer in the plant control room. All system alarms, status and data, adjustable settings, and mode changes are accessible from these terminals.

The injection of slurry reagent lime increases the effectiveness of the baghouses to remove particulates, adsorbed metals, and MWC organics and reduces the concentration of acids in the flue gases by means of a reaction between the hydrated lime and the acids in the flue gases.

### 10.3.1 SDA

The main function of each SDA is to inject reagent and allow retention time for the chemical reaction with and neutralization of the acid gases, forming a dry solid particulate compound which can be collected on the baghouse filters. Proper flue gas temperature is needed for the reactions and protection of the bag filter material and because all of the injected water evaporates into the flue gas air stream, the scrubber is called a spray dry absorber. Atomizing air is critical for the

introduction of liquid and absorption with the flue gas air stream and appropriate amounts allow for smaller injected liquid droplets and more surface area for the chemical reactions and temperature cooling. For each of the two scrubbers, three spray lances are installed from the penthouse and extend into the chamber. Separate liquid and air flexible hoses and quick disconnects for each lance allow for easy isolation from the common header and removal of the lance assembly. The water, reagent (lime slurry) and backup reagent lines from the lime preparation building combine at the common header at the middle of the scrubber in each penthouse.

#### 10.3.1.1 COMPRESSED/ATOMIZING AIR

For each scrubber, a variable position control valve alters the flow of compressed atomizing air through the lances. Typically, the operator places control in automatic mode for a constant airflow displayed in standard cubic feet per minute (scfm) equal to the operator entered setpoint. Transmitters mounted in each penthouse measure the airflow and pressure and are displayed on the operator interface terminals along with the actual control valve position. Two 150 HP air compressors with a 600-gallon air receiver and automatic drain serve as the atomizing air supply.

#### 10.3.1.2 DUCT FLUE GAS WATER INJECTION COOLING

For each scrubber, a variable position control valve alters the flow of reverse osmosis water to the lances. Typically, the operator places control into automatic mode for a constant outlet scrubber temperature equal to the operator entered setpoint. Transmitters mounted in each penthouse measure the water flow and pressure and are displayed on the operator interface terminals along with the actual control valve position. Thermocouples measure both the inlet and outlet temperatures of each scrubber. Two cooling water pumps with a discharge recirculation pressure relief valve and recirculation loop serve as the supply. Only one pump runs even if both scrubbers are online. A low discharge pressure switch activation causes the backup cooling pump to automatically enable. Soft water significantly reduces the spray lance and nozzle cleaning maintenance. Once the spray lance nozzles become infected with hard water, atomization is considerably reduced resulting in larger liquid droplets and less surface area for flue gas reactions and absorptions. If not prevented, the spray pattern could become detrimental causing wet walls and/or hoppers which could result in significant amounts of material build-up within the scrubber.

Due to the possibility of low SDA inlet temperature, cooling pump operation is disabled if the outlet temperature of both scrubbers is 25 degrees Fahrenheit (°F) less than the control setpoint (i.e., SOOT). Typically, the SDA outlet temperature control setpoint is 325°F. If either SDA outlet temperature rises 10°F above the control setpoint (i.e., 335°F), then cooling pump operation is re-initiated and temperature control is placed in automatic mode. The pumps automatically cycle operation. For example; if pump two was active when both scrubber outlet temperatures fell below 300°F, then pump one enables after either scrubber outlet temperature rises back above 335°F

#### 10.3.1.3 SLURRY INJECTION, SO<sub>2</sub> CONTROL, LINE FLUSHING

For each scrubber, a variable speed drive and pump alters the flow of lime slurry reagent to the lances. Typically, the operator places control into automatic mode for a constant lime slurry flow equal to the operator entered setpoint. Transmitters mounted in each penthouse measure the reagent flow and pressure and are displayed on the operator interface terminals. Normally, the lime slurry pumps will vary speed to directly control SDA outlet SO<sub>2</sub> concentrations. Signals from the owners CEM equipment provide each SDA inlet and outlet SO<sub>2</sub> concentrations. From the operator interface, the operator selects if reagent pump speed varies for flow or SO<sub>2</sub> control. If SO<sub>2</sub> control is selected, the SO<sub>2</sub> control loop is cascaded into the flow control loop, meaning the SO<sub>2</sub> control mode output is used as the setpoint for the automatic flow control loop.

A reagent pump (#1 and #2) exists for each SDA. An adjustable speed (#3) standby lime slurry pump/drive is provided for either scrubber in the event of a pump failure. Switch over is not automatic. Manual isolation valves in the lime preparation building must be properly positioned to direct the lime slurry supply from the scrubber's main pump to the #3 standby pump and to direct the #3 standby pump discharge to the desired SDA. Then, from the operator interface screen, #3 standby pump on selection is made.

Operator interface selection can be made to flush the reagent lines with reverse osmosis water using the lime slurry pumps. If a scrubber is in online mode and an online flush is selected, the appropriate flush water supply valve (#1 or #2) opens and the lime slurry supply valve closes while the pump (primary or #3 standby) used for online mode increases to 100% speed. If the operator selects an offline flush, all of the above actions occur with the addition of the drain valve

at the SDA penthouse opening to direct the flush water to the floor drain instead of through the lances, and then the pump stopping after the flush duration time has expired. The operator can disable an online or offline flush before the flush duration time has elapsed. The operator also has the option of manually opening the pump lime slurry supply valve when the pump is not running and connecting the utility water hose for a pump suction side flush.

For each scrubber, two reagent lines are installed from the lime preparation building to each penthouse. Manual valves can be positioned for online operation or for water and chemical hose connection flush or drain. At the top of each scrubber in the penthouse, manually operated drain valves exist. On the suction and discharge sides of each lime slurry pump, water and chemical flush or drain hose connections are available. From the cleaning chemical tank, a hose connection can be made to the suction of any lime slurry pump. The discharge could be used as a drain, or a hose connection could be made to either scrubber's supply or backup line with draining at the penthouse. While both scrubbers are online, the other pump can be used to flush the backup/spare injection line to the penthouse by operating the pump variable frequency drive (VFD) in local keypad mode

#### 10.3.1.4      HYDRATED LIME HANDLING AND LIME SLURRY PREPARATION

The reagent, lime slurry, injected into the flue gas air stream through the scrubber lances is prepared in the lime slurry mix tank in the lime preparation building. Controlled valves with limit switch position indication direct reagent flow into the two lines connecting the tank discharges to the suction side of the lime slurry pumps.

The existing lime silo is used. A new pushbutton station is provided for silo filling/supply truck unloading. A new continuous level transmitter is installed, and when the low level light is illuminated and the alarm is displayed, the silo should be re-filled. From the pushbutton station, the lime supply truck driver must place the selector switch into the "on" position before beginning the silo fill operation, which starts the bag pulsing of the existing bin vent filter on top of the silo. If the vent filter is not placed in service, lime unloading will become restricted and as soon as the filter bags become coated, the silo pressurizes and the pressure relief will open releasing lime into the atmosphere. Once the silo's high level light illuminates, the filling should be ceased and the selector switch returned to the "off" position. Excessive discharge of lime through the vent filter during the filling process could indicate a leaking or improperly installed filter.

Hydrated lime is transferred from the silo to the mix tank through two silo discharges, lime screw conveyors, drag conveyors, and volumetric feeders. The lime slurry feed and preparation operations can be placed into auto or manual modes from the lime slurry operator interface screen. System #1, System #2, or both must be placed in automatic operation mode. Once automatic mode is initiated, one of the two tank agitators begins. The volumetric feeders with attached hoppers reside on top of the mix tank. If in auto mode and either feeder hopper level falls below the high level, the inclined lime drag conveyor operates. The lime screw conveyor then starts until the feeder hopper high level is reached. Anytime the existing lime screw conveyor is moving, the existing lime silo hopper bin activator activates, which also remains active for a time period after the conveyor stops. An existing isolation valve opens for lime transfer out of the silo after the system is placed into automatic mode.

Once the level in the lime slurry preparation tank lowers, one of the volumetric feeders starts and the tank water supply valve opens until the batch high level is reached. If both volumetric feeders are in automatic mode, then they alternate enabling after the tank level lowers for each new batch operation. The speed of the volumetric feeders is operator selected. Small vibrators are attached to each volumetric feeder hopper which activate anytime its feeder is on. If lime slurry feed/preparation is in manual mode, the drag conveyors, lime screw conveyors, feeders, bin activators, silo discharge slidegates, and water valve can all be manually operated.

#### 10.3.1.5      SONIC HORNS AND ASH HANDLING

A hopper at the bottom of each scrubber serves as a particulate drop out collection area before the flue gas flow changes direction into the duct towards the fabric filter. Ideally, very little dust should be found here but just in case, equipment to handle it is installed. A motor operated double dump valve transfers the material out of the hopper, hopper heaters maintain the wall temperature to prevent condensation, hopper vibrators aid in substance removal, and a level switch indicates a removal problem. A pushbutton station is installed at each SDA base just below each hopper. A double dump auto/hand selector switch along with start/stop buttons allow for local operation.

Auto selection enables the double dump valve operation and should be interlocked with the running status of the existing drag conveyor. If the vibrator's hand/off/auto selector switch is placed in the auto position, the hopper vibrator's cycle according to the operator adjustable on/off settings as long as the double dump valve remains on. Through the use of the external disconnect handle, the hopper pushbutton station also serves as a lockout box for the vibrators.



Installed in each scrubber penthouse are two sonic horns that extend through the roof, aiding in removing particulate from the interior walls. From the operator interface, SDA horns/vibrators pop-up screen, auto cycle activation can be enabled/disabled and the interval or time between occurrences adjusted. The time until the next activation is also displayed, and the accumulated interval can be reset. For each SDA, both horns activate at the same time for 10 seconds and the interval must be an even divisible factor of 24 so that activation is equally spaced and predicted throughout the day.

### 10.3.2 CARBON INJECTION (PAC)

A PAC injection system aids in the reactions with mercury and total dioxins/furans. For each flue gas system, PAC is injected in the duct between the SDA and fabric filter where the gaseous acid components adhere, react, and become neutralized with the carbon.

A carbon storage silo is provided along with a pushbutton station for silo filling/supply truck unloading. When the low level light is illuminated and alarm is displayed, the silo should be re-filled. From the pushbutton station, the carbon supply truck driver must place the selector switch into the "on" position before beginning the silo fill operation, which starts the pulsing sequence of the bin vent filter on top of the silo. A timing board for pulse duration and interval is mounted on the filter house. Seven and a half (7.5) scfm of dry compressed air at 100 pounds per square inch gauge (psig) is required. If the vent filter is not placed in service, carbon unloading will become restricted and as soon as the filter bags become coated, the silo pressurizes and the pressure relief will open releasing carbon into the atmosphere. Once the silo high level light illuminates, the filling should be ceased and the selector switch returned to the "off" position. The carbon may settle after 10 to 15 minutes and the high level extinguish. Additional material could then be added to the silo. Excessive discharge of carbon through the vent filter during the filling process could indicate a leaking or improperly installed filter cartridge.

At the bottom of the storage silo, there are three conical discharges (hoppers) with one for each flue gas system train and one for a backup system or possible future #3. From the silo, the PAC moves through a rotary valve and volumetric feeder, dropping into a blower supplied pneumatic line traveling to the injection point. From the PAC operator interface screen, auto/manual fluidization and rotary valve operations can be selected, feeder speed

can be adjusted, and the injection can be placed into online/offline mode. PAC fluidization consists of 60 psig high pressure (HP) and 30 psig low pressure (LP) compressed air nozzles in the storage silo cone sections promoting mass flow from the silo and eliminating bridging and rat-holing. In automatic mode, the controlled valve of the train low pressure header nozzles opens for 2 seconds every 60 seconds as long as the rotary valve is in operation. This is followed by the controlled valves of each of the four HP header nozzles opening for 2 seconds every 30 seconds. Manual mode can be selected for fluidizing air if the rotary valve is not on, causing the LP and HP to activate for one 160-second cycle.

If the rotary valve is placed into auto mode, fluidization is also placed into automatic mode. In auto mode, the rotary valve begins operating once the feeder hopper falls below the high level for three minutes and continues running until the level rises back to the high level. This assures a constant volume of PAC for the volumetric feeder. A manually operated isolation valve must be opened for PAC transfer out of the silo. A train's rotary valve can also be enabled in manual mode, and locally mounted hands-off-auto selector switches allow for local manual operation. Normally, these switches should be left in auto mode. Off selection disables the rotary valves.

To enable PAC injection, the operator selects the online mode from the PAC injection system screen. The SDA must be online with flue gas through the system. The blower starts then, after a time delay, the feeder begins, drawing carbon from the feeder hopper and down the drop tube into the pneumatic eductor for conveying through the injection pipe. The operator selects the feeder speed corresponding to a constant injection rate in pounds per hour (lbs/hr) either through the panelview terminal or locally at the silo base using the local/remote selector switch and feeder controller mounted on the PAC control panel door outside the PAC silo. Silo carbon level is also displayed on the panel door. After PAC injection offline mode is selected, the feeder stops while the blower continues for a short period of time. The #3 standby/backup system can be operator selected for either train requiring repositioning of the manual valves.

### 10.3.3 ALARMS/TROUBLESHOOTING

Alarms are displayed on the Panelview terminals located on the doors of the main control panel in the EDC-3 building, each SDA penthouse remote I/O control panel, and the lime preparation building remote I/O control panel. Alarms are also generated on the operator interface computer in the plant control room. When a new alarm occurs, an alarm banner displays its description on the top of the currently displayed screen and the alarm horn on all panels annunciates. Selecting "alarm acknowledge" silences the horn and clears the alarm banner. There is also an alarm history screen displaying occurrence and acknowledgment times. In addition, the operator can access an alarm status screen displaying the current active alarms and accumulated alarm state times.

The emissions control system and operator interface system have been designed to provide the operating or maintenance personnel with a maximum amount of system status information. Improper operation or failure of system components can usually be corrected after analyzing the various alarms, displays and status indicators.

Manufacturer O&M manuals should be referenced for details on specific alarms.

### 10.3.4 SDA AND PAC SYSTEM OPERATION

Depending upon the time since the last shutdown, and the maintenance items performed at that time and since that time, all or most of the maintenance items of Section 7.0 should be performed before directing incinerator exhaust through the emissions control system. These actions are extremely critical for correct and reliable system operation.

#### 10.3.4.1      SYSTEM STARTUP PROCEDURE

- a. Verify that all system circuit breakers are turned on, including those in all motor control centers, main control panel, lime preparation building remote I/O panel, SDA #1 and SDA #2 remote I/O panels, and SDA #1 and SDA #2 hopper vibrator lockout boxes. Also, verify that all required panelboard circuit breakers are on and not tripped. Hopper heater circuits should always remain active, especially when boiler exhaust is not online with the scrubber.

- b. Close all duct access doors and confirm that all piping system hand valves are in the correct positions.
- c. Verify that all appropriate motor disconnect safety switches are in the "on" position, and that the compressor room and lime preparation building exhaust fan selector switches are in the "auto" positions.
- d. Check for adequate amounts of lime in the lime silo and carbon in the PAC silo. If necessary, order and/or fill before SDA online operation.
- e. With the main system exhaust ID fan running and the boiler warm in online mode, select the scrubber "on" from a operator interface terminal. This is used as a permissive for upcoming controls in this startup sequence.
- f. Select operator interface screen "from lime slurry tank" and place the lime slurry feed/preparation into "auto" mode (#1 and/or #2 "on"). Normally, both should be on. Verify the proper feeder speed control output for the desired lime slurry concentration.
- g. If the SDA inlet temperature is less than 360°F, open the air and liquid isolation valves for one lance only in the SDA penthouse. Valves are located in the center before the lance hoses.
- h. From the operator interface screen, adjust the atomizing airflow control setpoint to 65 scfm.
- i. Select "on" for each air compressor. They should be setup for lead/lag operation from the operator panel located on the front door of each compressor.
- j. Select "auto" atomizing air flow control.
- k. Select "on" for the appropriate lime slurry pump.
- l. With reagent flow and SO<sub>2</sub> control in manual modes, adjust the lime slurry pump speed for 1 to 1.5 gallons per minute (gpm) by changing the mode control output.
- m. If the SDA outlet temperature rises above 325°F and/or the SDA inlet temperature rises above 3 SOT, a second lance can then be brought online. Change the atomizing airflow control setpoint to 135 scfm and open the second lance's air and liquid isolation valves in the penthouse. Adjust the reagent (lime slurry) pump speed for 2.5 gpm to 3 gpm.
- n. After the boiler is in normal operation and the SDA outlet temperature is greater than 320°F, bring the third lance online. Change the atomizing airflow control setpoint to 200 scfm and open the remaining air and liquid isolation valves in the penthouse.
- o. Select "SO<sub>2</sub>" control and "Auto" mode for varying reagent pump speed. Verify the proper SDA outlet SO<sub>2</sub> [parts per million (ppm)] control setpoint is entered.

- p. From the PAC system operator interface screen, select PAC "online" and enter the desired feed rate. Zero percent (0%) to 100% feeder speed corresponds to 0 lbs/hr to 100 lbs/hr. From the PAC system screen, verify the auto rotary valve and fluidization selections. Be sure the manually operated knife gate below the silo is open.
- q. From the hopper vibrator lockout box located below the SDA hopper, move the selector switches to auto for double dump valve and hopper vibrator operations. From the operator interface terminal.
- r. From the operator interface screen titled "SDA horns/vibrators", verify auto SDA hopper vibrator cycle times, auto sonic horn operation and cycle times, and enable the double dump valve.

#### 10.3.4.2      NORMAL OPERATION

- a. Perform spray lance maintenance/cleaning twice per shift.
- b. Once the outlet temperature of either SDA is 10°F greater (typically 335°F) than the control setpoint, a cooling pump automatically enables and temperature control is placed into automatic mode. Normally, the control setpoint is 325°F. If the outlet temperature of both SDAs is 25°F less than the control setpoint (i.e., 300°F), the cooling pump disables. If one of the SDA outlet temperatures again rises 10°F above the control setpoint, the other cooling pump enables. The cooling pumps alternate activations.
- c. If reagent low temperature control is enabled from the operator interface and the SDA outlet temperature lowers 15°F less (typically 310°F) than the temperature control setpoint, SDA outlet SO<sub>2</sub> control is placed into manual mode with the reagent pump maintaining its current speed. If the temperature continues to drop 25°F less (typically 300°F) than the setpoint, the manual mode control output and pump speed is reduced by half. If the temperature drops again by 35°F (typically 290°F) less than the setpoint, the output (speed) is again reduced by half. After the SDA outlet temperature rises back above 5°F (typically 320°F) less than the setpoint, automatic SDA outlet SO<sub>2</sub> control is re-enabled. Note: all temperature control based changes occur after 5/10 second delays. Reagent flow low temperature control can be disabled from the operator interface, allowing SDA outlet SO<sub>2</sub> control even if the SDA outlet temperature becomes low.
- d. Online lime slurry line flushes should be enabled once every shift (every 12 hours). More online flushing may be needed if erratic flow and/or pressures readings are found. For example; with a constant pump speed, the flow should not significantly change. At 100% pump speed, the flow should be 7.1 gpm and should not fluctuate by more than 10%. From the operator interface, select "flush water" and "online" flush, which lasts five minutes. If flow restrictions are suspected on the pump suction, disable the pump and connect the utility water hose to the suction side. Then, from the operator interface flush water screen, select "supply valve open." Turn on the water from the hose reel

- e. Adjust the lime slurry batch water supply regulator for the desired lime slurry concentration (specific gravity). Do not allow batch water of less than 10 gpm. The lime feeder speed control output can also be adjusted for concentration changes.

#### 10.3.4.3      SHUTDOWN

The extent to which the system is powered down depends upon the reasons for and duration of the shutdown. The following procedures may be performed, in whole or part, depending upon the existing conditions.

- a. Select PAC offline. The feeder stops, and then after a 30-second delay the blower disables.
- b. Select "offline" reagent line flush. After five minutes, the lime slurry pump disables.
- c. Once SDA outlet temperature control is no longer needed, select cooling water pump "off."
- d. If the system will be down for an extended time period, place the atomizing airflow control into manual mode and enter 0% control output.
- e. In the penthouse center, close the liquid and air isolation valves before the hose connections.
- f. The air compressors can be turned off. Note: the atomizing airflow control valves fail open.
- g. For a short offline time period:
  - 1. The PAC fluidization and rotary valves can be left in auto modes. The pulsing fluidizing valves and rotary valve will not activate if the feeder hopper level is not lowering.
  - 2. The lime slurry feed and preparation can also be left in auto mode. The tank agitator will continue but the tube conveyors and feeders will not activate if the tank and feeder hopper levels are not lowering.
  - 3. The SDA hopper double dump valve, vibrators, and sonic horns can be left in auto modes.
  - 4. The double dump valve can remain enabled as long as the drag conveyor is running.
- h. For an extended shutdown, all items in step g could be placed in manual modes and the scrubber selected "off" from the operator interface.

#### 10.3.5      MAINTENANCE SCHEDULE

Listed in this section are the basic maintenance schedules for the emissions control system. This list is not intended to be all-inclusive, but to serve as the basis for a complete preventive maintenance program. Additional information is available from the equipment manufacturer's literature.

#### 10.3.4.4      DAILY MAINTENANCE

- a. Twice per shift, clean the SDA spray lance nozzles.
  1. For each lance, manual valves in the penthouse at the common header allow for online isolation. Close the liquid line first then the air. After lance is taken offline, the scrubber is online with lances and the cooling water control valve may open greater and lime pump speed may increase. Disconnect the liquid and air hoses from the lance. Do not disconnect under pressure and wear PPE. Remove the hot lance from the SDA port.
  2. Disassemble and clean all lance and nozzle parts, including purge tubes, end cover, cap, internal swirl chamber, and ports. A wire brush and/or mild acid (white vinegar) soaking can be used for cleaning.
  3. Reassemble and return the lance to the SDA port. Reconnect the hoses. Open the air hand valve first then open the liquid hand valve.
  4. Repeat the above steps for all lances and check for proper lance pressures and flows.
- b. Inspect each hopper outlet for dripping liquid or abnormal ash appearance. If there are problems, additional lance inspection/cleaning may be needed. Also, the reagent concentration or process conditions (volume flow or temperature) could have changed. Verify the proper lime slurry batching operation, reagent injection control, SDA outlet temperature control, and atomizing airflow control.
- c. Visually inspect system water, reagent, and air lines for leaks.
- d. Check for proper liquid and air pressures and flows.
- e. Verify satisfactory automatic control of atomizing air, temperature, reagent flow, and SO<sub>2</sub>.
- f. Verify satisfactory lime slurry batching operations.
- g. Verify satisfactory control of injected PAC.
- h. Verify satisfactory amounts of material in the lime and PAC silos.
- i. Verify the lime preparation building sump pump operation.

- j. Record alarms and pertinent system data for historical comparisons.

#### 10.3.4.5      WEEKLY MAINTENANCE

- a. Inspect all air line filters and/or regulators for water accumulation and drain as necessary. Open manually operated drain valves throughout the air system. If excessive water is observed, check the air dryers for proper operation, including pre and after filters. Consult the manufacturer's manual for additional air dryer information. There are also automatic drains on the air receiver tanks in the compressor room and PAC system and also on the filters inline before the dryer and after the air tank.
- b. Check air compressors for proper operation, including automatic drain. Inspect, clean and/or replace the filters. Consult the manufacturer's manual for additional maintenance information.
- c. Inspect all solenoid valves and air cylinders for excessive leaks. Replace seals if necessary.
- d. Verify proper regulator set pressures.
- e. Inspect the seals on the pumps. Tighten or replace the seals as necessary.
- f. Clean all inline liquid strainers.
- g. Inspect and tighten SDA hopper vibrator mounting bolts. Double dump valve and vibrators running in auto modes.
- h. Check the oil level and color in all gear reducers. Check for leaks and water in the oil.
- i. If PAC injection is not in use, manually fluidize the PAC and operate the rotary valve for each train.
- j. Clean and/or replace the PAC blower air inlet filter. Low blower discharge pressure could be an indication of a dirty filter.
- k. Verify proper operation of eye wash/shower stations in lime preparation building and SDA penthouses.
- l. Verify that room exhaust fans are properly functioning in the compressor room, lime preparation building, and SDA penthouses.
- m. Verify that all heat tracing circuit breakers are on and not tripped. The branch circuit breakers are located in the panelboard in the EDC-3 building.



#### 10.3.4.6      EXTENDED SHUTDOWNS

- a. Perform all maintenance and inspections as required in Sections 10.3.5.1 and 10.3.5.2.
- b. Follow all recommended maintenance procedures as described in the O&M manuals for each piece of equipment.
- c. Isolate and relieve the pressure in the compressed air system for all valves.
- d. Inspect, clean, and/or replace bin vent filter bags for the lime and PAC silos. A very low differential pressure could mean a hole in a bag and a very high differential pressure could mean heavy moist material on the bags.
- e. The SDA system internals should be thoroughly cleaned during any extended down periods to help ensure trouble free startup and operation.
- f. Inspect and clean all duct internals. Check duct access doors and gaskets.
- g. Replace the oil in all gear reducers. The minimum is six (6) months or 2,500 hours of operation for feeders, and yearly or 1,500 hours of operation for rotary valves. Consult the manufacturer's manual for additional information.
- h. Manually operate the isolation valves (knife gates) at silo discharges.
- i. Replace PAC blower bearing lubrication every 20,000 hours of operation. Consult the manufacturer's manual for additional information.
- j. Verify proper operation of the cooling water pump discharge recirculation pressure control valve, which is used to prevent dead-heading the pump discharge if the temperature control valve is closed.
- k. Re-grease air compressor motor bearings lubrication every nine (9) months or 2,000 hours of operation. Replace coolant every two (2) years or 6,000 hours of operation. Consult the manufacturer's manual for additional information.
- l. Replace the oil in lime slurry pump every 4,000 hours of operation.
- m. Replace the lime slurry mix tank agitator gear drive oil every six (6) months or 2,500 hours of operation. Re-grease bearings every 3,000 hours of operation. Consult the manufacturer's manual for additional information.
- n. Lubricate the hoist wire rope monthly, replace the gear oil yearly or every 200 hours of operation, and re-pack the sheave bearing yearly. Consult the manufacturer's manual for additional information.

## **10.4 DETAILED DESCRIPTION OF BAGHOUSE SYSTEM**

Each combustor train is served by a baghouse each with 6 modules. Each baghouse module has a separate gas inlet, gas outlet, and reverse air inlet that allows independent operation or isolation from the remaining modules. The individual compartment has one (1) access aisle. There are three (3) bags to the outside of that aisle for a total of six (6) bags across. There are eighty-four (84) bags per compartment for a total of five hundred four (504) bags for each baghouse.

Each compartment has a chain wheel operated inlet butterfly damper, and pneumatic operated reverse air and outlet poppet dampers. Hoppers are incorporated beneath each compartment for collecting flyash removed from the fabric bags. A reverse air fan is used for the purpose of cleaning the bags.

Flue gas enters the inlet manifold of the baghouse and is distributed by the six (6) compartment inlet dampers into the hopper below each compartment. The dirty gas passes up through the tube sheet to the inside of each bag. Entrained ash is removed as the gas passes through the bags. Clean gas enters the outlet manifold through a poppet type outlet damper when the damper is open to the outlet duct. With the damper in this position, the reverse air poppet damper is closed.

Periodically each compartment in the baghouse is taken "off-line" for cleaning. This action occurs sequentially with the automatic controls located in the control panel, proceeding from the compartment just cleaned to the next compartment to be cleaned.

During the cleaning cycle, clean, hot gas is drawn from the outlet manifold by the reverse air fan. The compartment outlet air damper closes which block the outlet flow. When this operation is complete, the reverse air damper opens. Reverse air then flows into the compartment in a direction opposite to the normal dirty gas flow. This action collapses the bags, breaking up the filter cake on the interior bag surfaces, allowing the ash to fall into the hopper and accumulate. The reverse air damper is then closed to allow the ash particles to settle in the hopper.

In order to eliminate "bag popping" the outlet damper opens slightly and after a 10 second delay, fully opens to allow slow repressurizing of the compartment after cleaning. The compartment is then returned to "on-line" operation as the outlet damper fully opens to the outlet duct. After a predetermined time interval, the next compartment is cleaned in the same manner.

#### 10.4.1 CONTROL SYSTEM

The Zurn Reverse Air Baghouse controls utilize a programmable controller and electromechanical systems for monitoring and controlling baghouse operation. These controls include a baghouse control panel, solenoid-operated pneumatic damper actuators, and instrumentation to monitor critical baghouse parameters.

The baghouse controls' basic function is to perform automatic sequential cleaning of each compartment in the baghouse system. In addition, critical parameters of the Zurn Baghouse are displayed and monitored, including baghouse inlet temperatures, baghouse differential pressure, compartment cleaning status, the position of the compartments' outlet and reverse air dampers and the status of the reverse air fan.

A programmable controller located inside the panel is the "brain" of the baghouse controls. The controller automatically sequences the cleaning cycle. It also cycles the reverse air fan to make the most efficient use of energy and still keeping the reverse air duct warm to prevent corrosion. Timers are located within the programmable controller.

Adjustments for compartment cleaning selection, monitors, and alarms are located on the front of the panel.

##### 10.4.1.1 CLEANING MODES

Three (3) cleaning modes are available for baghouse cleaning; "Timed", "DP" and "Both". The baghouse can be switched into any of the three modes of operation; "Both", "Timed", and "DP". This allows the baghouse to clean on demand of the high differential pressure or in a predetermined time (30 minutes to 16 hours) if the timed mode is selected. Under normal baghouse conditions the "Both" position is the mode of operation.

Cleaning can also be instigated at any time by pushing the "Fast Clean Cycle" button located on the front of the panel. This starts the cleaning cycle and will clean all compartments.

The "DP" mode allows the baghouse to remain on line until the baghouse system DP (differential pressure) exceeds the preset limit. When this happens, the cleaning interval between compartments is accelerated and cleaning, as previously described, occurs sequentially throughout all compartments. If the differential pressure exceeds the set point, this initiates the DP timer within the programmable controller which starts the cleaning cycle, if the pressure persists past the preset delay time. The cleaning cycle continues until all compartments are cleaned and the pressure is below the set point. The set point for initiating "DP" cleaning is adjustable on the back of DP recorder. Indicator lights are provided on the face of the panel to display when the baghouse is cleaning.

#### 10.4.2 ANCILLARY SYSTEMS

A number of components of the baghouse system have control logic associated with them. These include:

1. Autostart  
The rotary feeder starts and when proved by the zero speed switch the baghouse screw starts. After the baghouse screw is proved in the two hopper screws start.
2. Delay Stop  
First the two hopper screws run for 15 minutes. When they shut down, the baghouse conveyor runs for an additional 5 minutes. The rotary feeder runs an additional 1 minute.
3. Quick Stop  
This button should only be used in an emergency. It will stop all ash system devices immediately.
4. Reverse Air Fan  
The reverse air fan is located on a platform at the bag support level. The fan has a manually operated outlet damper. The reverse air fan outlet damper must be adjusted for prevailing operating conditions to maintain a reverse gas flow equal to approximately .25 inch W.G. differential pressure across the compartment being cleaned. To conserve energy the controls are set up to operate the reverse air fan periodically.
5. Filter Bags  
The bag material is Fiberglass with a Teflon based acid resistant finish. Bags are twenty-three feet and 7-1/4 inches in length and eight inches in diameter. The bags

have a metal cap and eye on one end and a three inch cuff with a glass rope on the opposite end. There are five anti-collapse rings in each bag.

#### 6. Hopper Heater System

An electric hopper heater system is supplied for the baghouse hoppers and screw conveyor. The heaters are controlled by individual thermostats mounted on the hoppers and a control panel for each baghouse. Hoppers are also insulated with 3 inch fiberglass.

### 10.4.3 RECOMMENDED MAINTENANCE AND TROUBLESHOOTING PROCEDURES

#### HIGH DIFFERENTIAL PRESSURE

Baghouse differential pressure continues to rise above normal level.

- a. Check damper on reverse air fan. Damper may have closed.
- b. Check for belt slippage or broken belts.
- c. With the magnehelic gauge verify that during cleaning the reverse air differential pressure is approximately 0.25 inches in the reverse direction. If not, open the reverse air fan outlet damper further to provide more air.
- d. Verify that a reverse air damper is not remaining open or the outlet damper fails to close.
- e. With the magnehelic gauge verify that during the time both reverse air and outlet dampers are closed the differential pressure is approximately zero. If not, one of the dampers is leaking.
- f. If the above steps do not rectify the problem, the internal compartment must be checked. Check bag tension as low tension will cause the bags not to be cleaned. Check the thickness of dust cake at the top and bottom of bag. If there is much more dust at the top, shake the bags gently from the top to remove the dust.
- g. Bags may also be blinded. If the condition is not corrected by the above steps, remove a few sample bags. Inspect the inside for crusty cake that is difficult to remove. Blinding is usually caused by water or hydrocarbons entering the flue gas. This can occur due to a broken boiler tube or inadequate combustion. A very fine black ash indicates too much carbon from inadequate combustion. Blinding can also be caused by condensation resulting from upsets during start-up and shutdown or operating the baghouse at too low flue gas temperature.
- h. Occasionally if broken bags are not replaced immediately, a layer of dust builds up on the outside of the bags. This will also cause inadequate cleaning. This problem is more difficult to solve. Try gently shaking the bags to remove dust. For more difficult cases the bags may have to be removed and gently washed, but this is a last recourse.

## BROKEN BAGS

Broken bags must be replaced immediately. Manually isolate one compartment at a time. The stack will clear when the compartment with broken bags is isolated.

## BAG TENSION

Bag tension is a vital factor in the baghouse design and should be checked periodically for the appropriate tension of 50 pounds.

An inspection to check bag tension is made at each shutdown. A compartment by compartment inspection is scheduled less than every three months or more frequently if opacity increases. This is done by randomly checking the dimensions as indicated in the previous section. At the shutdown, bags are checked for possible pinholes. These holes can be found by noting dust buildup on the tube sheet or on the surfaces of bags adjacent to the leak. Leaking bags are replaced immediately. High velocity gas leaking from a hole in a faulty bag will abrade an adjacent bag, eventually leading to that bag's failure.

## DAMPERS

During routine shutdown verify that the poppet dampers are seating. There should be a slight deflection (approx. 3/16") where the 14 gauge sheet meets the seat. One-half inch of shims is allowed between the cylinder and its mounting plate for adjustment. Also verify that the dampers are operating electrically and in sequence with the panel. The speed controls should be adjusted so the damper goes full stroke in 6 to 10 seconds.

## FANS

Follow the manufacturer's maintenance manuals. In particular check belt tension, bearing temperature, vibration, sheave alignment, buildup or erosion of the fan impeller and belt wear.

## SCREW CONVEYORS AND ROTARY FEEDERS

Follow the manufacturer's maintenance manuals. Periodic internal inspection of the screw and feeder is advisable to ascertain if there is a buildup on the screw or rotor preventing adequate removal.

## DOOR GASKETS

Deterioration of door gaskets can cause operating problems. The hopper door has a fiberglass rope gasket 3/8" diameter inserted in a recess in the door. If this gasket loses its compressiveness, it should be replaced as leakage in this area can cause "clinkers" to form, which can block the hopper discharge. Compartment doors have a square fiberglass gasket that should be inspected whenever the door is opened.

#### AIR LINES TO POPPET VALVES

Verify that lubricators and filters are checked periodically. Fill or replace as necessary. Note that dry air with dew point to match ambient temperatures is used to prevent freezing in solenoid valves.

### **10.5 CONTINUOUS EMISSIONS MONITORING SYSTEM**

The task of an extractive continuous emissions monitoring system (CEMS) is to extract a representative sample of gas from the exhaust stream of a combustion source, analyze the gas stream for pollutants and diluents concentrations, process and store the acquired data, and generate emissions summary reports.

The SEC/MIR system is used to monitor SO<sub>2</sub>, NO, carbon dioxide (CO), carbon monoxide (CO<sub>2</sub>) and oxygen (O<sub>2</sub>) at the outlet stacks of the incinerator trains. The SEC/MIR system consists of two major components: (1) the MIR 9000-LCD multi-gas infrared analyzer, and (2) the SEC probes. The SEC probe is a sample conditioning system mounted on the duct or stack, and used to extract a gas sample, condition it and deliver a clean, dry sample at ambient temperature to the MIR 9000-LCD gas analyzer.

For the inlet, both trains have a SEC box along with a Rosemont SO<sub>2</sub> analyzer and an Ametek O<sub>2</sub> analyzer that are configured in series. A sample pump is used to bring the sample gas from the SEC box to the Rosemont analyzer and then into the Ametek analyzer. Since a SEC box is used for the inlet, there is no need for a sample-conditioning unit to remove moisture from the sample gas. The four inlet analyzers are 19-inch rack mountable and are located inside a 19-inch enclosure.

The SEC probe uses the permeation principle to selectively remove the moisture from the sample, without affecting the gas species (NO, SO<sub>2</sub>, etc.) of interest. This effectively allows a "dry" measurement of the sample [since the dew point is <0 degrees Celsius (°C)]. In a standard MIR, the added benefit of the permeation material is that ammonia (NH<sub>3</sub>) is selectively removed from the sample, along with the water. This feature eliminates any potential of ammonium salt formation in the sampling system and analyzers. Also, the major interference, water, is reduced to a very low level (<6000 ppm). This is especially important when measuring NO at low concentrations.

A programmable logic controller (PLC) is used for each train (total of two inside the shelter). Both PLCs are tied to an Ethernet hub that transmits its data to the PC (data acquisition system, or DAS) in the control room. The DAS will be used for data storage and processing, along with generating the necessary compliance reports. There is also a third PLC (MicroLogix) in the control room which is used to tie the CEMS/DAS to the plant control system.

#### 10.5.1 BACKGROUND

The CEMS at the Facility is designed to conform to the following regulations:

- NYDEC Article 19 Title V Facility Permit Issued in 2006.
- NYSDEC Continuous Source Monitoring Manual.
- 40 CFR 60, Appendix B; Performance Specifications for Opacity and Gas Continuous Emission Monitoring Systems and Appendix F Quality Assurance required for CEMS. Used for Compliance Determination, July 1, 1992.

To ensure that the Facility is conforming to all of the above regulations, it is essential the personnel responsible for the Operations Department and Environmental compliance, and other key managers of the plant have read and become familiar with the above documents.

The above-mentioned regulations require Facility staff to perform the following activities:

1. Develop a Quality Assurance/Quality Control (QA/QC) Program with written step-by-step procedures for each of the following CEM tasks:



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The above-mentioned regulations require Facility staff to perform the following activities:

1. Develop a Quality Assurance/Quality Control (QA/QC) Program with written step-by-step procedures for each of the following CEM tasks:

- i) Calibration
  - ii) Calibration drift determination and adjustment
  - iii) Preventative maintenance including a spare parts inventory
  - iv) Data recording, calculations, and reporting accuracy audits
  - v) Corrective actions for malfunctions.
2. Perform daily calibration ("Zero/Span") drift checks as required by the New York NYSDEC and 40 CFR 60 regulations:
- i) All pollutants and diluent monitors should be calibrated at least daily using a minimum of certified master grade calibration gases.
  - ii) For gas monitors, the calibration gas must be introduced as close to the point of sample acquisition as possible.
  - iii) The zero drift check must be conducted at a pollutant or diluent concentration at or between 0% and 25% of analyzer range. The value selected must be lower than the lowest value that would be expected to occur under normal source operating conditions.
  - iv) The span drift check must be conducted at a pollutant or diluent concentration at or between 40% and 100% of analyzer range unless an alternative concentration can be demonstrated to better represent normal source operating levels. Typically 80% of analyzer range is chosen for these criteria.
3. Conduct quarterly calibration error checks and annual System Performance Audits, according to the procedures described by NYDEC and 40 CFR 60. Corrective actions must be taken when the CEM is found to have failed to meet the criteria established in the above regulations (e.g., failed a daily calibration or a quarterly calibration error check or an annual System Performance Audit). The CEM is then said to be ("out-of-control"). An out-of-control period is ended, only after a subsequent accuracy check of the same type as the initial one indicates acceptable accuracy: e.g., (an out-of-control period instigated by a failed calibration error (CE) check is ended by passing a subsequent CE check).
- CEM data acquired during an out-of control period cannot be used in emissions compliance determinations nor can they be counted toward meeting the requirements for minimum data availability.
4. Observe the following maintenance procedures:
- i) Zero and calibration drift checks should be conducted immediately prior to any maintenance, if possible.
  - ii) Zero and calibration drift checks must be conducted immediately following any maintenance.

- iii) If the post-maintenance zero or calibration drift checks show drift in excess of twice the applicable performance specifications, recalibration must be conducted in accordance with the quarterly calibration error check procedures.

#### 10.5.2 PROGRAM GOAL

The goal of this QA/QC plan is to ensure that the quality of the gas CEM data will meet specifications of NYDEC and EPA regulations. These regulations mandate minimum levels of CEM accuracy and availability. This program strives to achieve these standards by maximizing CEM up-time and source/agency confidence in the quality of emissions data.

#### 10.5.3 QA/QC PLAN STRUCTURE

The QA/QC plan is structured as a closed loop system: the quality of the CEM data is periodically assessed in checks and audits; the results of these quality assessments activate quality control measures which are comprised of corrective actions. After the application of the corrective actions, the data quality is again assessed; acceptable data quality indicates that the quality control activities have been successful, while unacceptable data quality indicates the need for additional quality control activities.

QA/QC plan. In addition to the daily drift checks and quarterly accuracy audits, the QAP specifies the periodic maintenance activities, which serve to optimize CEM availability. These activities include daily, weekly, monthly, bimonthly, quarterly, semi-annual, and annual checks and inspections. The data forms associated with these activities provide a record of maintenance and QA actions, which serves as a basis for future revisions of the QA/QC plan.

#### 10.5.4 QA/QC PLAN IMPLEMENTATION

The Facility's personnel responsible for Environmental Compliance will perform general oversight of the QA/QC plan. He/she will:

- Receive printouts of CEM data;
- Be notified of CEM and process malfunctions;

- Be notified of potential and/or actual non-compliance with emissions or monitoring standards as well as exceedance of the CEM's drift and accuracy limits;
- Receive and review quality assurance check, audit, and corrective action data; and
- Determine when alternate monitoring techniques should be employed. The personnel responsible for Environmental Compliance will be kept abreast of plant compliance status, CEM data quality and availability, operation and maintenance (O&M) problems, and the status of general QAP activities.

The personnel responsible for Environmental Compliance will audit all CEM and QA/QC plan data specified by the regulatory agencies and respond to inquiries from agency personnel concerning the progress of QA/QC plan activities. He/she will report on the status of QA/QC plan activities and their impact on both CEM data quality and monitor availability to the Facility's management.

Instrumentation and Control (I&C) technicians, operations personnel, and any contracted maintenance organization will conduct all QA/QC plan maintenance and inspection activities. Specifically, they will:

- Evaluate the daily automatic calibration drift data;
- Conduct daily and other periodic system checks;
- Perform preventative maintenance and corrective actions; and
- Report on the validity of CEM data. The technicians will consult routinely with operations personnel to identify and resolve possible CEM malfunctions. Operations personnel will provide notification to the I&C technicians of CEM alarms or fault messages, potential non-compliance, missing or erroneous data. The person responsible for environmental compliance will provide guidance to I&C personnel. I&C personnel will maintain files of system maintenance.

## **SECTION 10.0**

## **APPENDICES**

## **APPENDIX 10-1**

### **GLOSSARY**

## **GLOSSARY**

### **ABSOLUTE PRESSURE**

The sum of the gauge pressure and the atmospheric pressure. For example, at a gauge pressure of 100 psi, absolute pressure (at sea level) would be 114.7 psi.

### **ABSORPTION**

The taking up of matter in bulk by other matter.

### **ACID**

A compound that gives rise to hydrogen ions (H<sup>+</sup>) in an aqueous solution. Acids react with bases to form water and salts.

### **ACID DEW POINT**

Under certain conditions, acid gas and water form an acid mist. When the gas is cooled, the temperature at which the acid mist condenses.

### **ADSORBENT**

A material, such as Sorbent (limestone), upon which adsorption takes place.

### **ADSORPTION**

Adhesion of an extremely thin layer of molecules (gas or liquid) to the surfaces of solids (e.g., Sorbent) or liquids with which they are in contact.

### **ALKALINITY**

Capacity to neutralize acids, resulting from the presence of calcium hydroxide ions.

### **ANION**

A negative ion.

### ATMOSPHERIC PRESSURE

The pressure of the atmosphere at some definite elevation. At sea level it is 14.7 lbs. per square inch or 760 mm of mercury.

### BAGHOUSE (Fabric Collector)

Equipment with fabric bags used as a collector of agglomerated particulates as a tail gas reactor.

### BASE

A compound that gives rise to hydroxide ions (OH minus) in an aqueous solution. Bases react with acids to form water and salts.

### BYPASS

Duct, stack, or pipe that permits gas or liquid to be transported around a treatment process or any unit thereof.

### CALIBRATION

Determination, checking, or rectifying the graduation of any instrument that gives quantitative measurements.

### CATION

A positive ion.

### CHEMICAL EQUATION

A statement representing a chemical reaction, employing symbols and formulas instead of words.

### CHEMICAL FORMULA

Any collection of symbols and subscripts used to represent a pure substance. Empirical formulas and molecular formulas are examples of chemical formulas.



### COMPOSITE SAMPLE

Combination of individual samples taken at selected intervals (generally hourly or some similar specified period) to minimize the effect of the variability of the individual samples. Individual samples may have equal volume or may be roughly proportional to the flow at the time of sampling.

### CONDENSATION

Transformation from vapor phase to liquid phase.

### DEWPOINT

This is an indication of the amount of water vapor contained in the gas stream. When the gas is cooled, the temperature at which water condenses from the gas is called the dew point.

### DISSOLVED SOLIDS

Solids which are dissolved in the liquid.

### DRY BULB TEMPERATURE

The actual temperature of the gas as indicated by a dry (normal) temperature element inserted into the gas stream.

### VENTURI

Spool piece in the duct before the baghouse. Operating at a pressure drop of less than 1" w.g., serves to collect submicron particulate and as a mode of additional reagent introduction.

### DRY STANDARD CUBIC FEET PER MINUTE

Gas flowrate, less water content, corrected to standard temperature (60°F) and pressure (1 atmosphere). This is the basis for measurement of contaminants.

### EVAPORATION

The change from the liquid to the gaseous (vapor) state.

### FLUE GAS

All gases which leave the furnace combustion chamber by way of a flue.

### FREEBOARD

Vertical distance from the top of a tank or column to the surface of its contents.

### GAUGE PRESSURE

The pressure above or below atmospheric pressure. At atmospheric pressure, gauge pressure is zero; under a vacuum, gauge pressure is negative.

### GRAB SAMPLE

Single sample taken at neither set time nor flow.

### HUMIDITY (Absolute)

The amount of water vapor within a volume of gas, generally measured in lbs. water/lb. dry gas.

### INERTIAL IMPACTION

Removal of liquid or solid particle from a gas stream by impaction on a collector. The removal is due to the particle's inertia, which prevents a change in direction.

### IONS

Atom or group of atoms with an unbalanced electrostatic charge.

### MICRON

A unit of length equal to .001 mm or .000001 m.

### MONITORING

Measurement, sometimes continuous, of flowrate or quality.

## NEUTRALIZATION

The process in which H plus and OH minus ions, brought together from separate sources, combine to form H<sub>2</sub>O molecules. The reaction between a base and an acid, producing water and a salt, is a typical neutralization reaction.

## OPACITY

The percentage of light absorbed and scattered by the particulate present in the gas (i.e., transparent gases have zero opacity).

## PARTICULATE

Total suspended particulate (TSP). Total particulate including condensable. Fine solid particles such as are emitted from the furnace and carried by the flue gas.

## pH

The negative logarithm of the hydrogen ion concentration.

## PITOT TUBE TRAVERSE

Standard air velocity meter consisting of two (2) concentric tubes; one serving to measure the impact pressure existing in the air stream, the other to measure static pressure only.

## PRECIPITATION

Separating a substance from a solution, resulting in the formation of relatively insoluble matter.

## PRESSURE DROP (Headloss)

The drop of pressure across a system due to the resistance to the flow of liquids or gases through the system.

## RETENTION TIME

Average period of time that a fluid element is retained in a basin, tank, or similar unit before discharge.

### SALT

An ionic compound consisting of the cation of a base and the anion of an acid.

### SATURATED SOLUTION

A solution of such concentration that, if excess solute is present, equilibrium exists between the dissolved and undissolved bases.

### SETTLEABLE SOLIDS

Matter which will not stay in suspension during a preselected settling period (such as 1 hour) but settles to the bottom or floats to the top.

### SOLUTE

A substance dissolved in another substance (solvent), (Soda Ash in Water).

### SOLVENT

In a solution, the medium in which the solute is dissolved.

### SPECIFIC GRAVITY

Ratio of the density of a substance to pure water at standard temperature (4°C).

### SUBMICRON

Less than 1 micron in size.

### SUSPENDED SOLIDS

Solids which float on the surface of, or are in suspension in, liquids, and which are largely removable by laboratory filtering.

### VAPOR

The gaseous form of a substance.

### VENTURI

A short tube or spool piece inserted in pipe that has flared ends connected by a constricted middle, that depends for operation on the fact as the velocity of flow of a fluid increases in the constricted part, the pressure decreases causing vacuum.

### VISCOSITY

The measure of a liquid's resistance to flow.

### WET BULB TEMPERATURE

The temperature at which water, through evaporation under constant temperature and pressure, brings the air to the saturation point.

## **APPENDIX 10-2**

### **ABBREVIATIONS**

## ABBREVIATIONS

ACFM	=	actual cubic feet per minute
Ca (OH) <sub>2</sub>	=	hydrated lime - calcium hydroxide
CaCl <sub>2</sub>	=	calcium chloride
CaSO <sub>4</sub>	=	calcium sulfate
CaSO <sub>3</sub>	=	calcium sulphite
CO <sub>2</sub>	=	carbon dioxide
cu	=	cubic
DBT	=	dry bulb temperature
DP	=	dew point
DSCFM	=	dry standard cubic feet per minute
DV PPM	=	parts per million, dry volume basis
ft	=	feet
g	=	gram
gal	=	gallon
gpm	=	gallons per minute
GR/DSCFM	=	grains per dry standard cubic feet per minute at 60°F
HCl	=	hydrochloric acid
hr	=	hour
in	=	inch
in w.c.	=	inch water column pressure
l	=	liter
lb	=	pound
m	=	meter
mg	=	milligram
min	=	minute
mm	=	millimeter
pph	=	pounds per hour
ppm	=	parts per million
psi	=	pounds per square inch
sec	=	second
SO <sub>2</sub>	=	sulfur dioxide
sq	=	square
SO <sub>3</sub>	=	sulfur trioxide
sq	=	square

## **11.0 MAJOR ENVIRONMENTAL PERMITS AND REGULATORY REQUIREMENTS**

The Facility owner (or operator) has been granted several permits and registrations to operate the Facility. The two most significant operating permits concern air resources and solid waste management. The Title V (air resources) Operating Permit is provided in Appendix 11-1. The 6NYCRR Part 360 Solid Waste Management Facility Permit is provided in Appendix 11-2.

As a requirement of the Facility's Title V Permit, Appendix 11-3 contains a description of the recently applicable (as of December 2005) USEPA 40 CFR 60 Subpart BBBB (and other) requirements. Appendix 11-3 has been adopted from the Title V Permit Review Report (Report) accompanying the most recent Title V Permit Renewal. While the Report is based on information contained in the permit, the Report is a separate document and is not in itself an enforceable term and condition of the permit. Any questions should be directed to the Facility Manager.



## **SECTION 11.0**

### **APPENDICES**

**APPENDIX 11-1**

**TITLE V PERMIT**

**New York State Department of Environmental Conservation**  
**Facility DEC ID: 3134600019**



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 3-1346-00019/00013  
Effective Date: 07/28/2006 Expiration Date: 07/27/2011

Permit Issued To: DUTCHESS CO RESOURCE RECOVERY AGENCY  
96 SAND DOCK RD  
POUGHKEEPSIE, NY 12601-5444

Facility: DUTCHESS CO RESOURCE RECOVERY FACILITY  
98 SAND DOCK RD  
POUGHKEEPSIE, NY 12601

Contact: C SCOTT DANIELS  
41 SAND DOCK ROAD  
POUGHKEEPSIE, NY 12601

**Description:**

The Dutchess County Resource Recovery Facility located in Poughkeepsie, New York is a Class 1 Small Municipal Waste Combustor facility. The facility has two O'Connor Rotary mass burn waterwall type combustors each capable of combusting 228 tons per day of municipal solid waste (MSW), recovering energy as steam in the two boilers which have the capability to produce 115,800 lb/hour of steam at 625 psig and 700 degree Fahrenheit. The steam is used to drive a 9.2 MW turbine generator. Excess electricity is sold to Central Hudson Gas & Electric Corporation. The primary fuel combusted is MSW. During startup and shut down operations, natural gas is fired to maintain minimum flue gas temperature. The primary SIC is 4953.

Air pollution control equipment at the facility includes a spray dry absorber for acid gas control, fabric filters for particulate removal, and a carbon injection system for mercury and total dioxin control. The permittee may elect to not operate the carbon injection system(s) if annual stack test results demonstrate compliance with Subpart BBBB mercury and total dioxins emission limits without the operation of the carbon injection system(s). An overfire air system for carbon monoxide control is currently being designed and the anticipated completion date is Fall 2006. The facility has a Continuous Emissions Monitoring System (CEMS).

The facility is subject to 40 CFR 60 Subpart BBBB, Emission Guidelines for Small Municipal Waste Combustors, and 6 NYCRR Part 219, Incinerators.

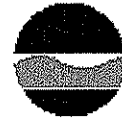
**New York State Department of Environmental Conservation**  
**Facility DEC ID: 3134600019**



By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: MARGARET E DUKE  
DIVISION OF ENVIRONMENTAL PERMITS  
21 SOUTH PUTT CORNERS RD  
NEW PALTZ, NY 12561-1696

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

Facility Inspection by the Department

Relationship of this Permit to Other Department Orders and Determinations

Applications for Permit Renewals and Modifications

Permit Modifications, Suspensions and Revocations by the Department

**Facility Level**

Submission of Applications for Permit Modification or Renewal-REGION 3

HEADQUARTERS



**DEC GENERAL CONDITIONS**

**\*\*\*\* General Provisions \*\*\*\***

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions**

**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**  
**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**  
**Applicable State Requirement: ECL 3-0301.2(m)**

**Item 2.1:**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 3: Applications for Permit Renewals and Modifications**  
**Applicable State Requirement: 6NYCRR 621.13**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 3.3:**



**New York State Department of Environmental Conservation**  
**Facility DEC ID: 3134600019**

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

**Condition 4: Permit Modifications, Suspensions and Revocations by the Department**  
**Applicable State Requirement: 6NYCRR 621.14**

**Item 4.1:**

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 5: Submission of Applications for Permit Modification or Renewal-REGION 3 HEADQUARTERS**  
**Applicable State Requirement: 6NYCRR 621.5(a)**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator  
Region 3 Headquarters  
Division of Environmental Permits  
21 South Putt Corners Road  
New Paltz, NY 12561-1696  
(845) 256-3054





**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**

**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: DUTCHESS CO RESOURCE RECOVERY AGENCY  
96 SAND DOCK RD  
POUGHKEEPSIE, NY 12601-5444

Facility: DUTCHESS CO RESOURCE RECOVERY FACILITY  
98 SAND DOCK RD  
POUGHKEEPSIE, NY 12601

Authorized Activity By Standard Industrial Classification Code:  
4931 - ELEC & OTHER SERVICES COMBINED

Permit Effective Date: 07/28/2006

Permit Expiration Date: 07/27/2011



**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 1 6NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6NYCRR 201-6.5(a)(7): Fees
- 3 6NYCRR 201-6.5(c): Recordkeeping and reporting of compliance monitoring
- 4 6NYCRR 201-6.5(c)(2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 5 6NYCRR 201-6.5(c)(3)(ii): Compliance Certification
- 6 6NYCRR 201-6.5(e): Compliance Certification
- 7 6NYCRR 202-2.1: Compliance Certification
- 8 6NYCRR 202-2.5: Recordkeeping requirements
- 9 6NYCRR 215: Open Fires Prohibited at Industrial and Commercial Sites
- 10 6NYCRR 200.7: Maintenance of Equipment
- 11 6NYCRR 201-1.7: Recycling and Salvage
- 12 6NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6NYCRR 201-3.2(a): Exempt Sources - Proof of Eligibility
- 14 6NYCRR 201-3.3(a): Trivial Sources - Proof of Eligibility
- 15 6NYCRR 201-6.5(a)(4): Standard Requirement - Provide Information
- 16 6NYCRR 201-6.5(a)(8): General Condition - Right to Inspect
- 17 6NYCRR 201-6.5(d)(5): Standard Requirements - Progress Reports
- 18 6NYCRR 201-6.5(f)(6): Off Permit Changes
- 19 6NYCRR 202-1.1: Required Emissions Tests
- 20 6NYCRR 211.3: Visible Emissions Limited
- 21 40CFR 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6NYCRR 200.3: False statement
- 24 6NYCRR 201-6: Emission Unit Definition
- 25 6NYCRR 201-7.1: Facility Permissible Emissions
- 26 6NYCRR 202-1.2: Notification
- 27 6NYCRR 202-1.3: Acceptable procedures
- 28 6NYCRR 202-1.3: Acceptable procedures - Stack test report submittal
- 29 6NYCRR 202-1.3: Alternate test methods
- 30 6NYCRR 202-1.4: Separate emission test by the commissioner
- 31 6NYCRR 202-1.5: Prohibitions
- 32 40CFR 60, Subpart BBBB: 40 CFR 60, Subpart BBBB Conditions
- 33 40CFR 60.1650, Subpart BBBB: Operator Training Course
- 34 40CFR 60.1655, Subpart BBBB: Plant Specific Training Course
- 35 40CFR 60.1660, Subpart BBBB: Plant Specific Training
- 36 40CFR 60.1665, Subpart BBBB: Information that must be included in the Plant-Specific Operating Manual
- 37 40CFR 60.1670, Subpart BBBB: Location for keeping the plant specific operating manual



- 38 40CFR 60.1675, Subpart BBBB: Operator Certification for Chief Facility Operator and Shift Supervisor - Class I MWC Units
- 39 40CFR 60.1680, Subpart BBBB: Employees that may operate MWC units.
- 40 40CFR 60.1685, Subpart BBBB: Operation of MWC Unit when Certified Operator is Temporarily Off-Site

**Emission Unit Level**

- 41 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 42 6NYCRR 201-6: Process Definition By Emission Unit
- 43 6NYCRR 201-7.1: Emission Unit Permissible Emissions

**EU=1-MBMWC**

- 44 6NYCRR 201-6.5(f)(1): Compliance Certification
- \*45 6NYCRR 201-7.1: Capping Monitoring Condition
- 46 6NYCRR 219-5.5: Abatement
- 47 6NYCRR 219-8.1: Applicability of Subpart 219-8
- 48 6NYCRR 219-8.3: Compliance Schedules for Class I and Class II small MWC units
- 49 40CFR 52.21(j)(2), Subpart A: Compliance Certification
- 50 40CFR 60.53(a), NSPS Subpart E: Daily charging rates and hours of operation.
- 51 40CFR 60, Subpart BBBB: 40 CFR 60, Subpart BBBB Conditions
- 52 40CFR 60.1690, Subpart BBBB: Compliance Certification
- 53 40CFR 60.1690, Subpart BBBB: Compliance Certification
- 54 40CFR 60.1695, Subpart BBBB: Compliance Certification
- 55 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 56 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 57 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 58 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 59 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 60 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 61 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 62 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 63 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 64 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 65 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 66 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 67 40CFR 60.1705(a)(1), Subpart BBBB: Compliance Certification
- 68 40CFR 60.1705(a)(3), Subpart BBBB: Compliance Certification
- 69 40CFR 60.1710, Subpart BBBB: Compliance Certification
- 70 40CFR 60.1720, Subpart BBBB: Compliance Certification
- 71 40CFR 60.1730, Subpart BBBB: Compliance Certification
- 72 40CFR 60.1750, Subpart BBBB: Compliance Certification
- 73 40CFR 60.1755, Subpart BBBB: Compliance Certification
- 74 40CFR 60.1760, Subpart BBBB: Compliance Certification
- 75 40CFR 60.1775, Subpart BBBB: Compliance Certification
- 76 40CFR 60.1795(b), Subpart BBBB: Compliance Certification
- 77 40CFR 60.1805, Subpart BBBB: Compliance Certification



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- 78 40CFR 60.1830, Subpart BBBB: Compliance Certification
- 79 40CFR 60.1835, Subpart BBBB: Compliance Certification
- 80 40CFR 60.1840, Subpart BBBB: Compliance Certification
- 81 40CFR 60.1845, Subpart BBBB: Compliance Certification
- 82 40CFR 60.1850, Subpart BBBB: Compliance Certification
- 83 40CFR 60.1855, Subpart BBBB: Compliance Certification
- 84 40CFR 60.1860, Subpart BBBB: Compliance Certification
- 85 40CFR 60.1865, Subpart BBBB: Compliance Certification
- 86 40CFR 60.1875, Subpart BBBB: Compliance Certification
- 87 40CFR 60.1880, Subpart BBBB: Compliance Certification
- 88 40CFR 60.1885, Subpart BBBB: Compliance Certification
- 89 40CFR 60.1890, Subpart BBBB: Compliance Certification
- 90 40CFR 60.1895, Subpart BBBB: Compliance Certification
- 91 40CFR 60.1900, Subpart BBBB: Compliance Certification
- 92 40CFR 60.1905, Subpart BBBB: Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

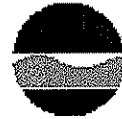
- 93 ECL 19-0301: Contaminant List
- 94 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 95 6NYCRR 211.2: Air pollution prohibited

**Emission Unit Level**

**EU=1-MBMWC**

- 96 6NYCRR 617.11(d): Compliance Demonstration

NOTE: \* preceding the condition number indicates capping.



**FEDERALLY ENFORCEABLE CONDITIONS**

\*\*\*\* Facility Level \*\*\*\*

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

**Item A:            Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B:            Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to



**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**

Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

- Item C:      Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**  
Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.
- Item D:      Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**  
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item E:      Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**  
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item F:      Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**  
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item G:      Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 201-6.5(a)(5)**  
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in



order to maintain compliance with the conditions of this permit.

**Item H:      Property Rights - 6 NYCRR Part 201-6.5(a)(6)**

This permit does not convey any property rights of any sort or any exclusive privilege.

**Item I:      Severability - 6 NYCRR Part 201-6.5(a)(9)**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J:      Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i.      The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii.     The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii.    The applicable requirements of Title IV of the



Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

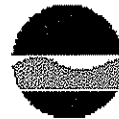
iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit





is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L:      Permit Exclusion - ECL 19-0305**  
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item M:      Federally Enforceable Requirements - 40 CFR 70.6(b)**  
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT  
TO ANNUAL CERTIFICATIONS AT ALL TIMES**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.**

**Condition 1:      Acceptable Ambient Air Quality**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 200.6**

**Item 1.1:**  
Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit



**New York State Department of Environmental Conservation**

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**Facility DEC ID: 3134600019**

any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Condition 2: Fees**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(a)(7)**

**Item 2.1:**

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0302.

**Condition 3: Recordkeeping and reporting of compliance monitoring**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(c)**

**Item 3.1:**

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

**Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(c)(2)**

**Item 4.1:**

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable



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regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**Condition 5: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)(ii)**

**Item 5.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 5.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.



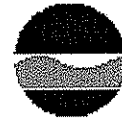
(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.



In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 6:      Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(e)**

**Item 6.1:**  
The Compliance Certification activity will be performed for the Facility.

**Item 6.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Requirements for compliance certifications with terms and conditions contained in this facility permit include the



following:

- i. Compliance certifications shall contain:
  - the identification of each term or condition of the permit that is the basis of the certification;
  - the compliance status;
  - whether compliance was continuous or intermittent;
  - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
  - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
  - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2



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Air Compliance Branch  
290 Broadway  
New York, NY 10007-1866

The address for the RAPCE is as follows:

21 South Putt Corners Road  
New Paltz, NY 12561-1696

The address for the BQA is as follows:

NYSDEC  
Bureau of Quality Assurance  
625 Broadway  
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due on the same day each year

**Condition 7:      Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-2.1**

**Item 7.1:**  
The Compliance Certification activity will be performed for the Facility.

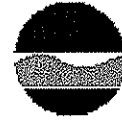
**Item 7.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Emission statements shall be submitted on or before April  
15th each year for emissions of the previous calendar  
year.

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due by April 15th for previous calendar year

**Condition 8:      Recordkeeping requirements**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-2.5**



**Item 8.1:**

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

**Condition 9: Open Fires Prohibited at Industrial and Commercial Sites**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 215**

**Item 9.1:**

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, refuse, rubbish for salvage, or rubbish generated by industrial or commercial activities.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT  
TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period. [NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

**Condition 10: Maintenance of Equipment**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 200.7**

**Item 10.1:**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

**Condition 11: Recycling and Salvage**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-1.7**





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**Item 11.1:**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

**Condition 12:    Prohibition of Reintroduction of Collected Contaminants to the air**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-1.8**

**Item 12.1:**

No person shall remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

**Condition 13:    Exempt Sources - Proof of Eligibility**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-3.2(a)**

**Item 13.1:**

The owner and/or operator of an emission source or unit that is eligible to be exempt may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

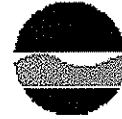
**Condition 14:    Trivial Sources - Proof of Eligibility**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-3.3(a)**

**Item 14.1:**

The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

**Condition 15:    Standard Requirement - Provide Information**  
**Effective between the dates of 07/28/2006 and 07/27/2011**



**Applicable Federal Requirement: 6NYCRR 201-6.5(a)(4)**

**Item 15.1:**

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

**Condition 16: General Condition - Right to Inspect**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(a)(8)**

**Item 16.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Standard Requirements - Progress Reports**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(d)(5)**

**Item 17.1:**

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any



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preventive or corrective measures adopted.

**Condition 18:    Off Permit Changes**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(f)(6)**

**Item 18.1:**

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.6 shall not apply to any change made pursuant to this paragraph.

**Condition 19:    Required Emissions Tests**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.1**

**Item 19.1:**

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

**Condition 20:    Visible Emissions Limited**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 211.3**

**Item 20.1:**

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material



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having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

**Condition 21: Accidental release provisions.**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 68**

**Item 21.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
  - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
  - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 22: Recycling and Emissions Reduction**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 82, Subpart F**

**Item 22.1:**

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements  
for Title V permits only.**

**Condition 23: False statement**

**Effective between the dates of 07/28/2006 and 07/27/2011**



**Applicable Federal Requirement: 6NYCRR 200.3**

**Item 23.1:**

No person shall make a false statement in connection with applications, plans, specifications and/or reports submitted pursuant to this Subchapter.

**Condition 24: Emission Unit Definition**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6**

**Item 24.1:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 1-MBMWC

Emission Unit Description:

Two (2) rotary combustors (RC-120) with integrated boilers, each with a combustion capacity of 228 tons per day of MSW having a heating value of 4,500 BTU/lb. The municipal waste combustor and boiler emission units are housed in the same building. The facility combusts MSW as defined in 6NYCRR Parts 219 and 360.

Building(s): PROBDG

**Condition 25: Facility Permissible Emissions**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-7.1**

**Item 25.1:**

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 007446-09-5

PTE: 420,000 pounds per year

Name: SULFUR DIOXIDE

**Condition 26: Notification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.2**

**Item 26.1:**

A person who is required by the commissioner to submit a stack test report shall notify the commissioner, in writing, not less than 30 days prior to the test, of the time and date of the test. Such notification shall also include the acceptable procedures to be used to stack test including sampling and analytical



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procedures. Such person shall allow the commissioner, or his representative, free access to observe stack testing being conducted by such person.

**Condition 27:    Acceptable procedures**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.3**

**Item 27.1:**

Emission testing, sampling, and analytical determinations to ascertain compliance with this Subpart shall be conducted in accordance with test methods acceptable to the commissioner.

**Condition 28:    Acceptable procedures - Stack test report submittal**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.3**

**Item 28.1:**

Emission test reports must be submitted in triplicate to the commissioner within 60 days after the completion of the tests, unless additional time is requested in writing.

**Condition 29:    Alternate test methods**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.3**

**Item 29.1:**

Alternate emission test methods or deviations from acceptable test methods may be utilized if it is impractical to utilize the acceptable test methods or where no applicable test method is available, if prior acceptance of the proposed alternate method is granted by the commissioner.

**Condition 30:    Separate emission test by the commissioner**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.4**

**Item 30.1:**

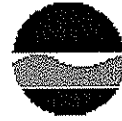
The commissioner may conduct separate or additional emission tests on the behalf of the State to ascertain compliance or noncompliance with any air pollution code, rule, or regulation.

**Condition 31:    Prohibitions**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 202-1.5**

**Item 31.1:**

No person shall conceal an emission by the use of air or other gaseous diluents to achieve compliance



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with an emission standard which is based on the concentration of a contaminant in the gases emitted through a stack.

**Condition 32:    40 CFR 60, Subpart BBBB Conditions**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60, Subpart BBBB**

**Item 32.1:**

The Permittee shall comply with all 40 CFR 60, Subpart BBBB permit conditions contained herein, in accordance with the applicable Class I or Class II compliance schedule provided in 6 NYCRR Subpart 219-8.3.

**Condition 33:    Operator Training Course**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1650, Subpart BBBB**

**Item 33.1:**

(a) All chief facility operators, shift supervisors, and control room operators must complete a municipal waste combustor operator training course which is acceptable to the Department by the later of the following two dates:

- (1) Six months after any MWC unit begins start-up following modification to comply with the requirements of Subpart BBBB,
- (2) The date before an employee assumes responsibilities that affect operation of any MWC unit.

(b) This condition does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before May 12, 2003. The owner or operator may request that the Department waive the requirements of this condition for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before May 12, 2003.

**Condition 34:    Plant Specific Training Course**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1655, Subpart BBBB**

**Item 34.1:**

All employees with responsibilities that affect how a MWC unit operates must complete a plant-specific training course. This would include at a minimum all Chief facility operators, Shift supervisors, Control room operators, Ash handlers, Maintenance personnel and Crane or load handlers.

**Condition 35:    Plant Specific Training**  
**Effective between the dates of 07/28/2006 and 07/27/2011**



**Applicable Federal Requirement: 40CFR 60.1660, Subpart BBBB**

**Item 35.1:**

For plant-specific training, permittee must do four things:

(a) Develop a specific operating manual for the MWC plant within six months after any MWC unit begins start-up following modification to comply with the requirements of CFR 60, Subpart BBBB. 40

(b) Establish a program to review the plant-specific operating manual with staff whose responsibilities affect the operation of any MWC unit. Complete the initial review by the later of two dates:

(1) Six months after any MWC unit begins start-up following modification to comply with the requirements of 40 CFR 60, Subpart BBBB.

(2) The date before an employee assumes responsibilities that affect operation of any MWC unit.

(c) Manual must be updated annually.

(d) Manual must be reviewed with staff annually.

**Condition 36: Information that must be included in the Plant-Specific Operating Manual**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1665, Subpart BBBB**

**Item 36.1:**

Permittee must include the following 11 items in the plant-specific operating manual:

- (a) A summary of all applicable 40 CFR 60, Subpart BBBB requirements.
- (b) A description of the basic combustion principles that apply to MWC units.
- (c) Procedures for receiving, handling, and feeding municipal solid waste.
- (d) Procedures to be followed during periods of startup, shutdown, and malfunction of any MWC unit.
- (e) Procedures for maintaining a proper level of combustion air supply.
- (f) Procedures for operating MWC unit(s) in compliance with the requirements contained in 40 CFR 60, Subpart BBBB.





- (g) Procedures for responding to periodic upset or off-specification conditions.
- (h) Procedures for minimizing carryover of particulate matter.
- (i) Procedures for handling ash.
- (j) Procedures for monitoring emissions from MWC unit(s).
- (k) Procedures for recordkeeping and reporting.

**Condition 37:    Location for keeping the plant specific operating manual**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1670, Subpart BBBB**

**Item 37.1:**

The operating manual must be kept in an easily accessible location at the plant. It must be available for review or inspection by all employees who are required to undergo plant-specific training, and by the Department upon request.

**Condition 38:    Operator Certification for Chief Facility Operator and**  
**Shift Supervisor - Class I MWC Units**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1675, Subpart BBBB**

**Item 38.1:**

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-1994).

(b) Each chief facility operator and shift supervisor must obtain a provisional certification by the later of :

(1) Six months after any MWC unit begins start-up following modification to comply with the requirements of 40 CFR 60, Subpart BBBB.

(2) Six months after they transfer to any MWC unit or 6 months after they are hired to work at any MWC unit.

(c) Each chief facility operator and shift supervisor must obtain a full certification from the American Society of Mechanical Engineers or schedule a full certification exam with the American Society of Mechanical Engineers (QRO-1-1994) by the later of :

(1) Six months after any MWC unit begins start-up following modification to comply with the requirements of 40 CFR 60, Subpart BBBB.

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(2) Six months after they transfer to any MWC unit or 6 months after they are hired to work at any MWC unit.

**Condition 39:    Employees that may operate MWC units.**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1680, Subpart BBBB**

**Item 39.1:** Following the required date provided in 40 CFR 60.1675 for full or provisional operator certification, Permittee must not operate any MWC unit unless one of the following four employees is on duty:

- (1) A fully certified chief facility operator.
- (2) A provisionally certified chief facility operator who is scheduled to take the full certification exam.
- (3) A fully certified shift supervisor.
- (4) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

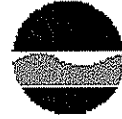
**Condition 40:    Operation of MWC Unit when Certified Operator is Temporarily Off-Site**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1685, Subpart BBBB**

**Item 40.1:**

If the certified chief facility operator and certified shift supervisor are both unavailable, a provisionally certified control room operator may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, you must meet one of three criteria:

- (a) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Department.
- (b) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Department. However, you must record the periods when the certified chief facility operator and certified shift supervisor are offsite and include the information in the annual report as specified under 40 CFR 60.1885(l).



(c) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without approval by the Department. However, you must take two actions:

(1) Notify the Department in writing. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite.

(2) Submit a status report and corrective action summary to the Department every 4 weeks following the initial notification. If the Department notifies you that your status report or corrective action summary is disapproved, your MWC unit(s) may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Department withdraws the disapproval, your MWC unit(s) operation may continue.

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 41: Emission Point Definition By Emission Unit**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6**

**Item 41.1:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 1-MBMWC

Emission Point: FLUE1

Height (ft.): 200 Diameter (in.): 48  
NYTMN (km.): 4611.524 NYTME (km.): 588.032 Building: PROBDG

Emission Point: FLUE2

Height (ft.): 200 Diameter (in.): 48  
NYTMN (km.): 4611.524 NYTME (km.): 588.032 Building: PROBDG

**Condition 42: Process Definition By Emission Unit**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6**

**Item 42.1:**

This permit authorizes the following regulated processes for the cited Emission Unit:



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Emission Unit: 1-MBMWC

Process: MSW

Source Classification Code: 5-03-001-13

**Process Description:**

Two municipal waste combustors (MSW), each capable of combusting 228 tons per day of MSW (166,440 tons per year). MSW includes household waste, nonhazardous commercial and industrial wastes, expired pharmaceuticals, documents, expired or unmarketable consumer goods, combustible construction and demolition debris and treated and destroyed medical waste.

Emission Source/Control: 00AC1 - Control

Control Type: ACTIVATED CARBON INJECTION

Emission Source/Control: 00BH1 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 00BH2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 0SDA1 - Control

Control Type: DRY SPRAY ABSORPTION

Emission Source/Control: 0SDA2 - Control

Control Type: DRY SPRAY ABSORPTION

Emission Source/Control: 0MWC1 - Incinerator

Design Capacity: 228 tons per day

Waste Feed Method: CHUTE FED

Waste Type: MUNICIPAL SOLID WASTE AND/OR SOLID  
WASTE

Emission Source/Control: 0MWC2 - Incinerator

Design Capacity: 228 tons per day

Waste Feed Method: CHUTE FED

Waste Type: MUNICIPAL SOLID WASTE AND/OR SOLID  
WASTE

**Item 42.2:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-MBMWC

Process: STS

Source Classification Code: 5-03-001-13

**Process Description:**

Two (2) MSW combustors firing natural gas during startup, shutdown and upset conditions.



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Emission Source/Control: AXBRN - Combustion  
Design Capacity: 38 million Btu per hour

Emission Source/Control: 00BH1 - Control  
Control Type: FABRIC FILTER

Emission Source/Control: 00BH2 - Control  
Control Type: FABRIC FILTER

Emission Source/Control: 0SDA1 - Control  
Control Type: DRY SPRAY ABSORPTION

Emission Source/Control: 0SDA2 - Control  
Control Type: DRY SPRAY ABSORPTION

Emission Source/Control: 0MWC1 - Incinerator  
Design Capacity: 228 tons per day  
Waste Feed Method: CHUTE FED  
Waste Type: MUNICIPAL SOLID WASTE AND/OR SOLID  
WASTE

Emission Source/Control: 0MWC2 - Incinerator  
Design Capacity: 228 tons per day  
Waste Feed Method: CHUTE FED  
Waste Type: MUNICIPAL SOLID WASTE AND/OR SOLID  
WASTE

**Condition 43:    Emission Unit Permissible Emissions**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-7.1**

**Item 43.1:**

The sum of emissions from all regulated processes specified in this permit for the emission unit cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit:    1-MBMWC

CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 47 pounds per hour  
420,000 pounds per year

**Condition 44:    Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 201-6.5(f)(1)**



**Item 44.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 44.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operational Flexibility:

Both MWC Units(Emission Unit I-MBMWC) are capable of using the Carbon Injection System(s) (Emission Source/Control 00AC1) as a control device for mercury and total dioxins/furans stack emissions. The permittee must operate the carbon injection system if the mandatory annual total dioxins/furans and mercury emissions do not comply with the limits provided in this permit.

The annual stack testing for total dioxins/furans and mercury may be performed without the carbon injecting system. If the annual stack test indicates that the dioxins/furans and mercury emission are within the limits provided in the permit, the permittee may choose at its discretion not to operate the carbon injection system till the next annual testing period. Subsequently, the record keeping and reporting requirements shall be suspended when determined, through the annual stack testing, that the limits provided in this permit for total dioxins/furans and mercury emissions are satisfied without the operation of the Carbon injection system(s).

Manufacturer Name/Model Number: NORIT Americas, Inc. Powdered Activated Carbon Systems

Reference Test Method: EPA REFERENCE METHODS 23 AND 29

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 45: Capping Monitoring Condition**

Effective between the dates of 07/28/2006 and 07/27/2011



**Applicable Federal Requirement: 6NYCRR 201-7.1**

**Item 45.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40CFR 52-A.21

**Item 45.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 45.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 45.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 45.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 45.6:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 45.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Facility-wide sulfur dioxide emissions are limited to 210



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tons per rolling twelve month period. Sulfur dioxide emissions are monitored continuously using a Continuous Emissions Monitor System (CEMS).

Monitoring Frequency: CONTINUOUS  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 12 calendar month(s).

**Condition 46:    Abatement**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 6NYCRR 219-5.5**

**Item 46.1:**  
This Condition applies to    Emission Unit: 1-MBMWC

- Item 46.2:**
- (a) Where the commissioner has reason to believe that an incinerator installation is violating the emission standards of section 219-5.2 of 6NYCRR, Subpart 219-5, the commissioner may have tests conducted. The owner must provide, at the owner's own expense, sampling holes and pertinent allied facilities as needed, at the request of the commissioner.
  - (b) If such tests indicate a contravention of the emission limits, the commissioner may require the installation of appropriate control equipment or the commissioner may seal the incinerator if such equipment is not installed within the time limit specified by the commissioner.
  - (c) The Commissioner may order the cleaning, repair, replacement or alteration of any equipment or control equipment which causes or is operated so as to cause a violation of 6NYCRR Subpart 219-5.
  - (d) The Commissioner may order a change in the manner of operation of any incinerator which is operated so as to cause a violation of 6NYCRR Subpart 219-5.

**Condition 47:    Applicability of Subpart 219-8**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

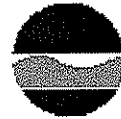
**Applicable Federal Requirement: 6NYCRR 219-8.1**

**Item 47.1:**  
This Condition applies to    Emission Unit: 1-MBMWC

**Item 47.2:**  
**The permittee shall comply with the federal requirements of 40 CFR Part 60, Subpart BBBBB incorporated by reference in 6 NYCRR Part 200 (see section 200.10, Table 2), as applicable.**

**Condition 48:    Compliance Schedules for Class I and Class II small MWC**





units  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement: 6NYCRR 219-8.3**

**Item 48.1:**

This Condition applies to Emission Unit: 1-MBMWC

**Item 48.2:**

The Permittee shall comply with the requirements of Subpart 219-8.1 in accordance with the applicable Class I or Class II compliance schedule provided in 6 NYCRR Subpart 219-8.3

**Condition 49: Compliance Certification**

Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement: 40CFR 52.21(j)(2), Subpart A**

**Item 49.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 49.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emissions are limited to 0.015 grains/dscf  
corrected to 7% oxygen.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.015 grains per dscf

Reference Test Method: 40 CFR 60 APP A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

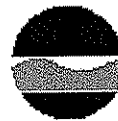
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 50: Daily charging rates and hours of operation.**

Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement: 40CFR 60.53(a), NSPS Subpart E**



**Item 50.1:**

This Condition applies to Emission Unit: 1-MBMWC

**Item 50.2:** The permittee shall record the daily charging rates and hours of operation of each incinerator.

**Condition 51:** 40 CFR 60, Subpart BBBB Conditions  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement:** 40CFR 60, Subpart BBBB

**Item 51.1:**

This Condition applies to Emission Unit: 1-MBMWC

**Item 51.2:**

The Permittee shall comply with all 40 CFR 60, Subpart BBBB permit conditions contained herein, in accordance with the applicable Class I or Class II compliance schedule provided in 6 NYCRR Subpart 219-8.3.

**Condition 52:** Compliance Certification  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement:** 40CFR 60.1690, Subpart BBBB

**Item 52.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 52.2:**

Compliance Certification shall include the following monitoring:

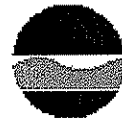
Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

MWC Operating Practices Requirements for particulate matter control device.

(a) Permittee must not operate any municipal waste combustion unit such that the temperature at the inlet of the particulate matter control device exceeds 17°C above the "maximum demonstrated temperature of the particulate matter control device", as specified under §60.1940.

(b) All MWC units are exempt from limits on the temperature at the inlet of the particulate matter control



device during any of the following five situations:

- (1) During annual tests for dioxins/furans.
- (2) During the 2 weeks preceding annual tests for dioxins/furans.
- (3) Whenever the Department authorizes the Permittee to do any of the following five activities:
  - (i) Evaluate system performance.
  - (ii) Test new technology or control technologies.
  - (iii) Perform diagnostic testing.
  - (iv) Perform other activities to improve the performance of your municipal waste combustion unit(s).
  - (v) Perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit(s).
- (c) The operating requirements specified in this condition shall apply at all times except during periods of MWC unit startup, shutdown, or malfunction. Each startup, shutdown or malfunction must not last for longer than 3 hours.
- (d) Permittee must install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device. Compliance is based on a 4-hour block arithmetic average.

Parameter Monitored: TEMPERATURE

Upper Permit Limit: 17 deg C above maximum demonstrated  
temperature of PM control as per  
§60.1940

Monitoring Frequency: CONTINUOUS

Averaging Method: 4-HOUR BLOCK (ARITHMETIC AVERAGE)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 53: Compliance Certification**



Effective between the dates of 07/28/2006 and 07/27/2011

Applicable Federal Requirement: 40CFR 60.1690, Subpart BBBB

**Item 53.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 53.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

MWC Operating Practices Requirements for Unit Load Level  
and Activated Carbon Feed Rate:

(a) Permittee must not operate any MWC unit at a load greater than 110 percent of the maximum demonstrated load of the MWC unit (4-hour block average), as specified under "Definitions" (40 CFR 60.1940).

(b) MWC unit(s) using activated carbon to control dioxins/furans or mercury emissions, must maintain an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test.

(c) MWC unit(s) using activated carbon to control dioxins/furans or mercury emissions, must evaluate total carbon usage for each calendar quarter. The total amount of carbon purchased and delivered to the MWC plant must be at or above the required quarterly usage of carbon. Permittee may choose to evaluate required quarterly carbon usage on a MWC unit basis for each individual MWC unit at the plant. The required quarterly usage of carbon shall be calculated using equation 4 or 5 in 40 CFR 60.1935(f).

(d) All MWC units are exempt from limits on load level, and carbon feed rate during any of the following five situations:

(1) During annual tests for dioxins/furans.

(2) During annual mercury tests (for carbon feed rate requirements only).



- (3) During the 2 weeks preceding annual tests for dioxins/furans.
- (4) During the 2 weeks preceding annual mercury tests (for carbon feed rate requirements only).
- (5) Whenever the Department authorizes the Permittee to do any of the following five activities:
  - (i) Evaluate system performance.
  - (ii) Test new technology or control technologies.
  - (iii) Perform diagnostic testing.
  - (iv) Perform other activities to improve the performance of your municipal waste combustion unit(s).
  - (v) Perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit(s).
- (e) The operating requirements specified in this condition shall apply at all times except during periods of MWC unit startup, shutdown, or malfunction. Each startup, shutdown or malfunction must not last for longer than 3 hours.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 54: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1695, Subpart BBBB**

**Item 54.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 54.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

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**Monitoring Description:**

The operating requirements specified in 40CFR60.1690 shall apply at all times except during periods of MWC unit startup, shutdown, or malfunction. Each startup, shutdown or malfunction must not last for longer than 3 hours.

**Reporting Requirements: SEMI-ANNUALLY (CALENDAR)**

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 55: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 55.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007440-43-9      CADMIUM

**Item 55.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Cadmium emission limit for Class I small MWC plants.

Cadmium emissions from each MWC unit shall not exceed 0.040 milligrams per dry standard cubic meter, corrected to 7% oxygen, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 29 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: CADMIUM



**New York State Department of Environmental Conservation**

**Permit ID: 3-1346-00019/00013**

**Facility DEC ID: 3134600019**

Upper Permit Limit: 0.040 milligrams per dry standard  
cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Ref. Method 29

Monitoring Frequency: ANNUALLY

Averaging Method: ARITHMETIC MEAN

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 56: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 56.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 001746-01-6 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

**Item 56.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Total dioxins/furans emission limit for Class I small MWC  
plants that do not employ an electrostatic  
precipitator-based emission control system.

Total dioxins/furans emissions from each MWC unit shall  
not exceed 30 nanograms per dry standard cubic meter,  
corrected to 7% oxygen, based on a 3-run average. Initial  
compliance stack tests shall be conducted no later than  
June 4, 2006. Thereafter, annual stack tests shall be  
conducted no later than 13 months after the previous stack  
test. EPA Reference Method 23 provided in 40 CFR 60,  
Appendix A shall be used to demonstrate compliance.  
Compliance testing must be performed while the MWC unit is  
operating at full load. A minimum sampling time of 4  
hours per test run is required. Reporting shall be done  
in accordance with 40 CFR 60.1860 through 60.1905, as  
applicable.

Parameter Monitored: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN



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Upper Permit Limit: 30 nanograms per dry standard cubic  
meter (corrected to 7% O<sub>2</sub>)  
Reference Test Method: EPA Ref. Method 23  
Monitoring Frequency: ANNUALLY  
Averaging Method: 4-HOUR AVERAGE ( ARITHMETIC MEAN)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 57: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 57.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007647-01-0      HYDROGEN CHLORIDE

**Item 57.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

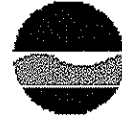
Monitoring Description:

Hydrogen chloride emission limit for Class I small MWC  
plants.

Hydrogen chloride emissions from each MWC unit shall meet  
the less stringent of 31 parts per million by volume, dry  
corrected to 7% oxygen, or the percent reduction by weight  
or volume hydrogen chloride emission limit provided in  
this permit, based on a 3-run average. Initial compliance  
stack tests shall be conducted no later than June 4, 2006.  
Thereafter, annual stack tests shall be conducted no  
later than 13 months after the previous stack test. EPA  
Reference Method 26 or 26A provided in 40 CFR 60, Appendix  
A shall be used to demonstrate compliance. Compliance  
testing must be performed while the MWC unit is operating  
at full load. A minimum sampling time of 1 hour per test  
run is required. Reporting shall be done in accordance  
with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: HYDROGEN CHLORIDE





**New York State Department of Environmental Conservation**  
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Upper Permit Limit: 31 parts per million by volume (dry,  
corrected to 7% O<sub>2</sub>)  
Reference Test Method: EPA Method 26/26A  
Monitoring Frequency: ANNUALLY  
Averaging Method: ARITHMETIC MEAN  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 58: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 58.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):  
CAS No: 007647-01-0      HYDROGEN CHLORIDE

**Item 58.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:  
Hydrogen chloride emission limit for Class I small MWC plants.

Hydrogen chloride emissions from each MWC unit shall meet the less stringent of 95 percent reduction by weight or volume, dry corrected to 7% oxygen, or the concentration based hydrogen chloride emission limit provided in this permit, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 26 or 26A provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. A minimum sampling time of 1 hour per test run is required. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: HYDROGEN CHLORIDE

**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**



Lower Permit Limit: 95 percent reduction by weight or  
volume (corrected to 7% O<sub>2</sub>, dry  
basis)

Reference Test Method: EPA Method 26/26A

Monitoring Frequency: ANNUALLY

Averaging Method: ARITHMETIC MEAN

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 59: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 59.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007439-92-1      LEAD

**Item 59.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Lead emission limit for Class I small MWC plants.

Lead emissions from each MWC unit shall not exceed 0.490 milligrams per dry standard cubic meter, corrected to 7% oxygen, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006.

Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 29 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: LEAD

Upper Permit Limit: 0.490 milligrams per dry standard  
cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Ref. Method 29

**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**



Monitoring Frequency: ANNUALLY  
Averaging Method: ARITHMETIC MEAN  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 60: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 60.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):  
CAS No: 007439-97-6      MERCURY

**Item 60.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:

Mercury emission limit for Class I small MWC plants.

Mercury emissions from each MWC unit shall meet the less stringent of 0.080 milligrams per dry standard cubic meter, corrected to 7% oxygen, or the percent reduction by weight mercury emission limit provided in this permit, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 29 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: MERCURY  
Upper Permit Limit: 0.080 milligrams per dry standard cubic meter (corrected to 7% oxygen)  
Reference Test Method: EPA Ref. Method 29  
Monitoring Frequency: ANNUALLY



**New York State Department of Environmental Conservation**

**Permit ID: 3-1346-00019/00013**

**Facility DEC ID: 3134600019**

Averaging Method: ARITHMETIC MEAN

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 61: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 61.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

**Item 61.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Mercury emission limit for Class I small MWC plants.

Mercury emissions from each MWC unit shall meet the less stringent of 85 percent reduction by weight, dry corrected to 7% oxygen, or the concentration based mercury emission limit provided in this permit, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 29 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: MERCURY

Lower Permit Limit: 85 percent reduction by weight  
(corrected to 7% O<sub>2</sub>, dry basis)

Reference Test Method: EPA Ref. Method 29

Monitoring Frequency: ANNUALLY

Averaging Method: ARITHMETIC MEAN



**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 62: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 62.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 068131-74-8      ASHES (RESIDUES)

**Item 62.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Fugitive ash emission limit for Class I small MWC  
plants.

Discharge to the atmosphere of visible emissions of  
combustion ash from the ash conveying system (including  
conveyor transfer points) may not exceed 5 percent of the  
observation period (i.e. three 1-hour observation  
periods), as determined by EPA Reference Method 22  
observations. The three 1-hour observation period must  
include periods when the facility transfer fugitive ash  
from the MWC unit to the area where the fugitive ash is  
stored or loaded into containers or trucks. Initial  
compliance visible emission tests shall be conducted no  
later than June 4, 2006. Thereafter, annual visible  
emission tests shall be conducted no later than 13 months  
after the previous emission test. Reporting shall be done  
in accordance with 40 CFR 60.1860 through 60.1905, as  
applicable.

Parameter Monitored: OPACITY

Upper Permit Limit: 5 percent

Reference Test Method: EPA Ref. Method 22

Monitoring Frequency: ANNUALLY

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Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 63: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 63.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):  
CAS No: 0NY210-00-0    OXIDES OF NITROGEN

**Item 63.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)  
Monitoring Description:

Nitrogen oxides emission limit for mass burn rotary  
waterwall Class I small MWC plants.

Nitrogen oxides emissions from each MWC unit shall not  
exceed 170 parts per million by volume, dry corrected to  
7% oxygen. Initial compliance shall be conducted no later  
than June 4, 2006. Thereafter, compliance is based on a  
24 hour daily block (arithmetic average) using a nitrogen  
oxides continuous emission monitoring system. Reporting  
shall be done in accordance with 40 CFR 60.1860 through  
60.1905, as applicable.

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 170 parts per million by volume  
(dry, corrected to 7% O<sub>2</sub>)

Monitoring Frequency: CONTINUOUS  
Averaging Method: 24 HOUR DAILY BLOCK (ARITHMETIC  
AVERAGE)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**



**Condition 64: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 64.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 0NY075-00-0    PARTICULATES

**Item 64.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Opacity emission limit for Class I small MWC  
plants.

Opacity emissions from each MWC unit shall not exceed 10 percent based on a 3 hour observation period (thirty 6-minute averages). Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 9 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: OPACITY

Upper Permit Limit: 10 percent

Reference Test Method: EPA Ref. Method 9

Monitoring Frequency: ANNUALLY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 65: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**



**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 65.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 0NY075-00-0    PARTICULATES

**Item 65.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate matter emission limit for Class I small MWC plants.

Particulate matter emissions from each MWC unit shall not exceed 27 milligrams per dry standard cubic meter, corrected to 7% oxygen, based on a 3-run average. Initial compliance stack tests shall be conducted no later than June 4, 2006. Thereafter, annual stack tests shall be conducted no later than 13 months after the previous stack test. EPA Reference Method 5 or 29 provided in 40 CFR 60, Appendix A shall be used to demonstrate compliance. Compliance testing must be performed while the MWC unit is operating at full load. The minimum sample volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 +/- 14 degrees C. The minimum sampling time is 1 hour. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 27 milligrams per dry standard cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Meth 5 or 29

Monitoring Frequency: ANNUALLY

Averaging Method: ARITHMETIC MEAN

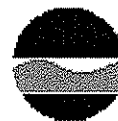
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).





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**Condition 66: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**

**Item 66.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 66.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Sulfur dioxide emission limit for Class I small MWC plants.

Sulfur dioxide emissions from each MWC unit shall meet the less stringent of 31 parts per million by volume, dry corrected to 7% oxygen, or the percent reduction by weight or volume sulfur dioxide emission limit provided in this permit. Initial compliance shall be conducted no later than June 4, 2006. Thereafter, compliance is based on a 24-hour daily block (geometric average) using a sulfur dioxide continuous emission monitoring system. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 31 parts per million by volume (dry, corrected to 7% O<sub>2</sub>)

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY BLOCK (GEOMETRIC AVERAGE)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 67: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1705(a)(1), Subpart BBBB**



**Item 67.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 67.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Sulfur dioxide emission limit for Class I small MWC plants.

Sulfur dioxide emissions from each MWC unit shall meet the less stringent of 75 percent reduction by weight or volume, dry corrected to 7% oxygen, or the concentration based sulfur dioxide emission limit provided in this permit. Initial compliance shall be conducted no later than June 4, 2006. Thereafter, compliance is based on a 24-hour daily block (geometric average) using a sulfur dioxide continuous emission monitoring system. Reporting shall be done in accordance with 40 CFR 60.1860 through 60.1905, as applicable.

Parameter Monitored: SULFUR DIOXIDE

Lower Permit Limit: 75 percent reduction by weight or volume (corrected to 7% O<sub>2</sub>, dry basis)

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY BLOCK (GEOMETRIC AVERAGE)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 68: Compliance Certification**

Effective between the dates of 07/28/2006 and 07/27/2011

Applicable Federal Requirement: 40CFR 60.1705(a)(3), Subpart BBBB

**Item 68.1:**

The Compliance Certification activity will be performed for:



Emission Unit: 1-MBMWC

Regulated Contaminant(s):  
CAS No: 000630-08-0      CARBON MONOXIDE

**Item 68.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Carbon monoxide emission limit for mass burn rotary  
waterwall Class I small MWC plants.

Carbon monoxide emissions from each MWC unit shall not  
exceed 250 parts per million by volume, dry corrected to  
7% oxygen. Initial compliance shall be conducted no later  
than June 4, 2006. Thereafter, compliance is based on a  
24 hour block average (arithmetic mean) using a carbon  
monoxide continuous emission monitoring system. Reporting  
shall be done in accordance with 40 CFR 60.1860 through  
60.1905, as applicable.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 250 parts per million by volume  
(dry, corrected to 7% O<sub>2</sub>)

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR BLOCK AVERAGE (ARITHMETIC  
MEAN)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 69: Compliance Certification**

Effective between the dates of 07/28/2006 and 07/27/2011

Applicable Federal Requirement: 40CFR 60.1710, Subpart BBBBB

**Item 69.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 69.2:**

Compliance Certification shall include the following monitoring:

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Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Start-up, shutdown and malfunction emission limits:

(a) The emission limits in this permit apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

(c) A maximum of 3 hours of test data can be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.

(d) During startup, shutdown, or malfunction periods longer than 3 hours, emissions data cannot be discarded from compliance calculations and all provisions under 40 CFR 60.11(d) apply.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 70: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1720, Subpart BBBB**

**Item 70.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 70.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Continuous emission monitoring systems for gaseous pollutants:

(a) Permittee must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide.



Additionally, for Class I municipal waste combustion units, install, calibrate, maintain, and operate a continuous emission monitoring system for nitrogen oxides. Continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and oxygen (or carbon dioxide) must be installed at the outlet of the air pollution control device.

(b) Permittee must install, evaluate, and operate each continuous emission monitoring system according to the "Monitoring Requirements" in 40 CFR 60.13.

(c) Permittee must monitor the oxygen (or carbon dioxide) concentration at each location where sulfur dioxide and carbon monoxide are monitored. Additionally, for Class I municipal waste combustion units, monitor the oxygen (or carbon dioxide) concentration at the location where nitrogen oxides are monitored.

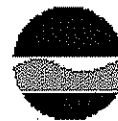
(d) Permittee may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If Permittee chooses to monitor carbon dioxide, then an oxygen monitor is not required. If carbon dioxide is chosen as the diluent gas, permittee must establish the relationship between oxygen and carbon dioxide during the initial evaluation of the continuous emission monitoring systems. Permittee may reestablish the relationship during annual evaluations. To establish the relationship the following three procedures shall be used:

(1) Use EPA Reference Method 3A or 3B in Appendix A of Part 60 to determine oxygen concentration at the location of your carbon dioxide monitor.

(2) Conduct at least three test runs for oxygen. Make sure each test run represents a 1-hour average and that sampling continues for at least 30 minutes in each hour.

(3) Use the fuel-factor equation in EPA Reference Method 3B in Appendix A of Part 60 to determine the relationship between oxygen and carbon dioxide.

(e) If Permittee chooses to demonstrate compliance by monitoring the percent reduction of sulfur dioxide, continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) must be installed at the



inlet of the air pollution control device.

(f) If Permittee prefers to use an alternative sulfur dioxide monitoring method, such as parametric monitoring, or cannot monitor emissions at the inlet of the air pollution control device to determine percent reduction, Permittee can apply to the Department for approval to use an alternative monitoring method under 40 CFR 60.13(i).

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 71: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1730, Subpart BBBB**

**Item 71.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 71.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Continuous emission monitoring systems operation /  
evaluation requirements:

(a) Permittee shall conduct initial, daily, quarterly, and annual evaluations of continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.

(b) Complete initial evaluation of the continuous emission monitoring systems within 180 days after the final compliance date required by 6 NYCRR Subpart 219-8.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides, or carbon monoxide continuous emission monitoring systems, as appropriate, and the appropriate test methods specified in



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Table 6 of 40 CFR 60, Subpart BBBBB. Permittee shall collect the data during each initial and annual evaluation of the continuous emission monitoring systems following the applicable performance specifications outlined in Table 7 of 40 CFR 60, Subpart BBBBB.

(d) Permittee shall follow the quality assurance procedures in Procedure 1 of Appendix F of 40 CFR 60 for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

(e) Permittee shall conduct annual evaluations of continuous emission monitoring systems no more than 13 months after the previous evaluation was conducted.

(f) Permittee shall use the required span values and applicable performance specifications in Table 8 of Subpart BBBBB.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 72: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1750, Subpart BBBBB**

**Item 72.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 72.2:**

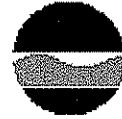
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Continuous emission monitoring systems data collection requirements:

(a) Where continuous emission monitoring systems are required, Permittee shall obtain 1- hour arithmetic averages. The averages for all measured pollutants must be in parts per million by dry volume at 7 percent oxygen (or



the equivalent carbon dioxide level). The 1- hour averages of oxygen (or carbon dioxide) data from the continuous emission monitoring system shall be used to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).

(b) Permittee shall obtain at least two data points per hour in order to calculate a valid 1- hour arithmetic average. In accordance with 40 CFR 60.13(e)(2) , the continuous emission monitoring systems must complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Permittee shall obtain valid 1-hour averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste.

(d) If Permittee does not obtain the minimum data required in paragraphs (a) through (c) of this condition, Permittee is in violation of the data collection requirement regardless of the emission level monitored, and must notify the Department according to 40 CFR 60.1885(e).

(e) If Permittee does not obtain the minimum data required in paragraphs (a) through (c) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions in accordance with 40 CFR 60.1755.

(f) Permittee shall Refer to Table 8 of 40 CFR 60, Subpart BBBB for alternate methods to be used for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 73:    Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**





**Applicable Federal Requirement: 40CFR 60.1755, Subpart BBBB**

**Item 73.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 73.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The permittee shall follow the following procedure for conversion of 1 hr. arithmetic averages into appropriate averaging time and units:

(a) Use the equation in 40CFR 60.1935(a) to calculate emissions at 7 percent oxygen.

(b) Use EPA Reference Method 19 in appendix A of Part 60, section 4.3, to calculate the daily geometric average concentrations of sulfur dioxide emissions. If you are monitoring the percent reduction of sulfur dioxide, use EPA Reference Method 19 in appendix A of Part 60, section 5.4, to determine the daily geometric average percent reduction of potential sulfur dioxide emissions.

(c) If you operate a Class I municipal waste combustion unit, use EPA Reference Method 19 in appendix A of Part 60, section 4.1, to calculate the daily arithmetic average for concentrations of nitrogen oxides.

(d) Use EPA Reference Method 19 in appendix A of Part 60, section 4.1, to calculate the 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon monoxide.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 74: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**



**Applicable Federal Requirement: 40CFR 60.1760, Subpart BBBB**

**Item 74.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 74.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Continuous opacity monitoring system requirements:

- (a) Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system.
- (b) Install, evaluate, and operate each continuous opacity monitoring system according to 40 CFR 60.13.
- (c) Complete an initial evaluation of the continuous opacity monitoring system according to Performance Specification 1 in Appendix B of 40 CFR 60, and complete the evaluation by 180 days after the final compliance date required by 6 NYCRR Subpart 219-8.
- (d) Complete each annual evaluation of the continuous opacity monitoring system no more than 13 months after the previous evaluation.
- (e) Use tests conducted according to EPA Reference Method 9 in Appendix A of 40 CFR 60, as specified in 40 CFR 60.1790, to determine compliance with the opacity limit in this permit. The data obtained from the continuous opacity monitoring system shall not be used to determine compliance with the opacity limit.
- (f) Use the required span values and applicable performance specifications in Table 8 of 40 CFR 60, Subpart BBBB.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).



**New York State Department of Environmental Conservation**

**Permit ID: 3-1346-00019/00013**

**Facility DEC ID: 3134600019**

**Condition 75: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1775, Subpart BBBB**

**Item 75.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 75.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Stack testing requirements:

(a) Permittee shall conduct initial and annual stack tests to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance. Initial stack tests for these pollutants shall be conducted within 180 days after the required final compliance date provided in 6 NYCRR Subpart 219-8. Annual stack test shall be conducted no later than 13 months after the previous stack test. You may not deviate from the 13-month testing schedule unless you apply to the Department for an alternative schedule, and the Department approves your request for alternate scheduling prior to the date on which you would otherwise have been required to conduct the next stack test.

(b) Permittee shall follow Table 8 of 40 CFR 60, Subpart BBBB to establish the sampling location and to determine pollutant concentrations, number of traverse points, individual test methods, and other specific testing requirements for the different pollutants.

(c) Stack tests for all the pollutants shall consist of at least three test runs, as specified in 40 CFR 60.8. The average of the pollutant emission concentrations from the three test runs shall be used to determine compliance with the applicable emission limits in this permit.

(d) Permittee shall obtain an oxygen (or carbon dioxide) measurement during the stack tests to determine diluent gas levels, as specified in 40 CFR 60.1720.



(e) The equations in 40 CFR 60.1935(a) shall be used to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride emissions, and the reduction efficiency for mercury emissions. Permittee shall refer to the individual test methods in Table 6 of 40 CFR 60, Subpart BBBB for other required equations.

(f) Permittee may apply to the Department for approval under 40 CFR 60.8(b) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the department has determined are adequate for demonstrating compliance, waive the requirement for a performance test because Permittee has demonstrated compliance by other means, or use a shorter sampling time or smaller sampling volume.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 76: Compliance Certification**  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement: 40CFR 60.1795(b), Subpart BBBB**

**Item 76.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

Regulated Contaminant(s):  
CAS No: 001746-01-6 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

**Item 76.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:

Alternative dioxins/furans emissions stack testing at  
Class I small MWC plants:

(a) Permittee may test less often for dioxins/furans emissions if all municipal waste combustion units have demonstrated levels of dioxins/furans emissions (less than



or equal to the limit specified in this condition), for 2 consecutive years. In this case, Permittee may choose to conduct annual stack tests on only one municipal waste combustion unit per year. This provision only applies to stack testing for dioxins/furans emissions.

(b) Permittee shall conduct the annual stack test no more than 13 months following a stack test on any municipal waste combustion unit. Each year, Permittee shall test a different municipal waste combustion unit and shall test all municipal waste combustion units in a sequence that Permittee determines. Once Permittee determines a testing sequence, it must not be changed without approval by the Department. In accordance with 40 CFR 60.1800, Permittee may not deviate from the 13- month testing schedule unless Permittee applies to the Department for an alternative schedule, and the Department approves Permittee's request for alternate scheduling prior to the date on which Permittee would otherwise have been required to conduct the next stack test.

(c) If each annual stack test shows levels of dioxins/furans emissions less than or equal to the limit specified in this condition, Permittee may continue stack tests on only one municipal waste combustion unit per year.

(d) If any annual stack test indicates levels of dioxins/furans emissions greater than the limit specified in this condition, Permittee shall conduct subsequent annual stack tests on all municipal waste combustion units. Permittee may return to testing one municipal waste combustion unit per year if Permittee can demonstrate dioxins/furans emissions levels less than or equal to the limit specified in this condition, for all municipal waste combustion units for 2 consecutive years.

Upper Permit Limit: 15 nanograms per dry standard cubic meter (corrected to 7% O<sub>2</sub>)

Reference Test Method: EPA Ref. Method 23

Monitoring Frequency: ANNUALLY

Averaging Method: 4-HOUR AVERAGE ( ARITHMETIC MEAN)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.



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Subsequent reports are due every 6 calendar month(s).

**Condition 77: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1805, Subpart BBBB**

**Item 77.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 77.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

MWC load level, temperature and carbon feed rate  
monitoring requirements:

(a) Permittee must monitor the load level of each municipal waste combustion unit. For each municipal waste combustion unit that generates steam, Permittee must install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter and meet the following five requirements:

(1) Continuously measure and record the measurements of steam (or feed water) in kilograms (or pounds) per hour.

(2) Calculate steam (or feed water) flow in 4-hour block averages.

(3) Calculate the steam (or feed water) flow rate using the method in "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1--1964 (R1991)," Section 4 (incorporated by reference in 40 CFR 60.17(h)(2)).

(4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters," 6th Edition (1971), chapter 4 (incorporated by reference in 40 CFR 60.17(h)(3)).



(5) Before each dioxins/furans stack test, or at least once a year, calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions.

(b) If Permittee's municipal waste combustion units do not generate steam, or, if Permittee's municipal waste combustion units have shared steam systems and steam load cannot be estimated per unit, Permittee must determine, to the satisfaction of the Department, one or more operating parameters that can be used to continuously estimate load level (for example, the feed rate of municipal solid waste). Permittee must continuously monitor the selected parameters.

(c) Permittee must install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device.

(d) For each municipal waste combustion unit that uses activated carbon to control dioxins/furans or mercury emissions, Permittee must meet the following three requirements:

(1) Select a carbon injection system operating parameter that can be used to calculate carbon feed rate (for example, screw feeder speed).

(2) During each dioxins/furans and mercury stack test, determine the average carbon feed rate in kilograms (or pounds) per hour. Also, determine the average operating parameter level that correlates to the carbon feed rate and establish a relationship between the operating parameter and the carbon feed rate in order to calculate the carbon feed rate based on the operating parameter level.

(3) Continuously monitor the selected operating parameter during all periods when the municipal waste combustion unit is operating and combusting waste and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. When calculating the 8-hour block average, Permittee must do two things:

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(i) Exclude hours when the municipal waste combustion unit is not operating.

(ii) Include hours when the municipal waste combustion unit is operating but the carbon feed system is not working correctly.

(e) Where continuous parameter monitoring systems are used, Permittee must obtain 1-hour arithmetic averages for the following three parameters:

(1) Load level of the municipal waste combustion unit.

(2) Temperature of the flue gases at the inlet of the particulate matter control device.

(3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

(f) Permittee must obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average.

(g) Permittee must obtain valid 1-hour averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste.

(h) If Permittee fails to obtain the minimum data required in paragraphs (e) through (g) of this condition, Permittee is in violation of the data collection requirement, and must notify the Department.

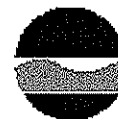
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 78: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1830, Subpart BBBB**

**Item 78.1:**





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**Facility DEC ID: 3134600019**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 78.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The Permittee shall meet the Recordkeeping requirements listed in 40 CFR 60.1830 through 60.1855, as applicable.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 79: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1835, Subpart BBBB**

**Item 79.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 79.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Permittee shall:

(a) Keep all records onsite in paper copy or electronic format unless the Department approves another format.

(b) Keep all records on each municipal waste combustion unit for at least 5 years.

(c) Make all records available for submittal to the Department, or for onsite review by a Department representative.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.



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The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 80:    Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1840, Subpart BBBB**

**Item 80.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 80.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

Permittee shall keep the following six records for  
operator training and certification:

(a) Records of provisional certifications. Include three  
items:

(1) For your municipal waste combustion plant, names of  
the chief facility operator, shift supervisors, and  
control room operators who are provisionally certified by  
the American Society of mechanical Engineers or an  
equivalent State-approved certification program.

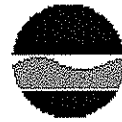
(2) Dates of the initial provisional  
certifications.

(3) Documentation showing current provisional  
certifications.

(b) Records of full certifications. Include three  
items:

(1) For your municipal waste combustion plant, names of  
the chief facility operator, shift supervisors, and  
control room operators who are fully certified by the  
American Society of Mechanical Engineers or an equivalent  
State-approved certification program.

(2) Dates of initial and renewal full  
certifications.



(3) Documentation showing current full certifications.

(c) Records showing completion of the operator training course. Include three items:

(1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA or State municipal waste combustion operator training course.

(2) Dates of completion of the operator training course.

(3) Documentation showing completion of operator training course.

(d) Records of reviews for plant-specific operating manuals. Include three items:

(1) Names of persons who have reviewed the operating manual.

(2) Date of the initial review.

(3) Dates of subsequent annual reviews.

(e) Records of when a certified operator is temporarily offsite. Include two main items:

(1) If the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, record the dates that the certified chief facility operator and certified shift supervisor were offsite.

(2) When all certified chief facility operators and certified shift supervisors are offsite for more than 2 weeks and no other certified operator is onsite, keep records of four items:

(i) Your notice that all certified persons are offsite.



(ii) The conditions that cause those people to be offsite.

(iii) The corrective actions you are taking to ensure a certified chief facility operator or certified shift supervisor is onsite.

(iv) Copies of the written reports submitted every 4 weeks that summarize the actions taken to ensure that a certified chief facility operator or certified shift supervisor will be onsite.

(f) Records of calendar dates. Include the calendar date on each record.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 81: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1845, Subpart BBBB**

**Item 81.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 81.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

Permittee shall keep the following four records for stack tests required under 40 CFR 60.1775:

(a) The results of the stack tests for the following eight pollutants or parameters recorded in the appropriate units of measure specified in Table 2 or 4 of 40 CFR 60, Subpart BBBB:

(1) Dioxins/furans.

(2) Cadmium.



- (3) Lead.
- (4) Mercury.
- (5) Opacity.
- (6) Particulate matter.
- (7) Hydrogen chloride.
- (8) Fugitive ash.
- (b) Test reports including supporting calculations that document the results of all stack tests.
- (c) The maximum demonstrated load of your municipal waste combustion units and maximum temperature at the inlet of your particulate matter control device during all stack tests for dioxins/furans emissions.
- (d) The calendar date of each record.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 82: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1850, Subpart BBBB**

**Item 82.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 82.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Permittee shall keep the following eight records for continuously monitored pollutants or parameters:

- (a) Records of monitoring data including:



- (1) All 6-minute average levels of opacity.
  - (2) All 1-hour average concentrations of sulfur dioxide emissions.
  - (3) For Class I municipal waste combustion units only, all 1-hour average concentrations of nitrogen oxides emissions.
  - (4) All 1-hour average concentrations of carbon monoxide emissions.
  - (5) All 1-hour average load levels of your municipal waste combustion unit.
  - (6) All 1-hour average flue gas temperatures at the inlet of the particulate matter control device.
- (b) Records of average concentrations and percent reductions including:
- (1) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions or average percent reductions of sulfur dioxide emissions.
  - (2) For Class I municipal waste combustion units only, all 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.
  - (3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions.
  - (4) All 4-hour block arithmetic average load levels of your municipal waste combustion unit.
  - (5) All 4-hour block arithmetic average flue gas temperatures at the inlet of the particulate matter control device.
- (c) Records of exceedances including the following three items:
- (1) Calendar dates whenever any of the five pollutant or parameter levels recorded in paragraph (b) of this condition or the opacity level recorded in subparagraph (a)(1) of this condition did not meet the emission limits



or operating levels specified in 40 CFR 60, Subpart  
BBBB.

(2) Reasons you exceeded the applicable emission limits or  
operating levels.

(3) Corrective actions you took, or are taking, to meet  
the emission limits or operating levels.

(d) Records of minimum data including the following three  
items:

(1) Calendar dates for which you did not collect the  
minimum amount of data required under 40 CFR 60.1750 and  
60.1825. Record those dates for the following five types  
of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) For Class I municipal waste combustion units only,  
nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustion  
unit.

(v) Temperatures of the flue gases at the inlet of the  
particulate matter control device.

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took or are taking to obtain  
the required amount of data.

(e) Records of exclusions. Document each time you have  
excluded data from your calculation of averages for any of  
the following five pollutants or parameters and the  
reasons the data were excluded:

(1) Sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only,  
nitrogen oxides emissions.

(3) Carbon monoxide emissions.



- (4) Load levels of your municipal waste combustion unit.
- (5) Temperatures of the flue gases at the inlet of the particulate matter control device.
- (f) Records of drift and accuracy. Document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of 40 CFR Part 60. Keep those records for the sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide continuous emissions monitoring systems.
- (g) Records of the relationship between oxygen and carbon dioxide. If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in 40 CFR 60.1745.
- (h) Records of calendar dates. Include the calendar date on each record.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 83: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1855, Subpart BBBB**

**Item 83.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 83.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Permittee shall keep the following five records for each municipal waste combustion unit that uses activated carbon to control dioxins/furans or mercury emissions:





(a) Records of average carbon feed rate. Document the following five items:

(1) Average carbon feed rate in kilograms (or pounds) per hour during all stack tests for dioxins/furans and mercury emissions. Include supporting calculations in the records.

(2) For the operating parameter chosen to monitor carbon feed rate, average operating level during all stack tests for dioxins/furans and mercury emissions. Include supporting data that document the relationship between the operating parameter and the carbon feed rate.

(3) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour calculated from the monitored operating parameter.

(4) Total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include supporting documentation.

(5) Required quarterly usage of carbon for the municipal waste combustion plant, calculated using equation 4 or 5 in 40 CFR 60.1935(f). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant. Include supporting calculations.

(b) Records of low carbon feed rates. Document the following three items:

(1) The calendar dates when the average carbon feed rate over an 8-hour block was less than the average carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions (whichever has a higher feed rate).

(2) Reasons for the low carbon feed rates.

(3) Corrective actions you took or are taking to meet the 8-hour average carbon feed rate requirement.



(c) Records of minimum carbon feed rate data. Document the following three items:

(1) Calendar dates for which you did not collect the minimum amount of carbon feed rate data required under 40 CFR 60.1825.

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took or are taking to get the required amount of data.

(d) Records of exclusions. Document each time you have excluded data from your calculation of average carbon feed rates and the reasons the data were excluded.

(e) Records of calendar dates. Include the calendar date on each record.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 84: Compliance Certification**  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable Federal Requirement: 40CFR 60.1860, Subpart BBBBB**

**Item 84.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 84.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

The Permittee shall meet the Reporting requirements listed in 40 CFR 60.1860 through 60.1905, as applicable.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

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**Condition 85: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1865, Subpart BBBB**

**Item 85.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 85.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Permittee shall refer to Tables 2, 3, 4 and 5 of 40 CFR  
60, Subpart BBBB for appropriate units of measurement for  
reporting emissions data.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 86: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1875, Subpart BBBB**

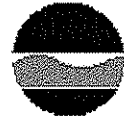
**Item 86.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 86.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Permittee shall include the following seven items in the  
initial compliance report:

(a) The emission levels measured on the date of the  
initial evaluation of your continuous emission monitoring  
systems for all of the following five pollutants or  
parameters as recorded in accordance with 40 CFR



60.1850(b).

(1) The 24-hour daily geometric average concentration of sulfur dioxide emissions or the 24-hour daily geometric percent reduction of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, the 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions.

(4) The 4-hour block arithmetic average load level of your municipal waste combustion unit.

(5) The 4-hour block arithmetic average flue gas temperature at the inlet of the particulate matter control device.

(b) The results of the initial stack tests for the following eight pollutants or parameters (use appropriate units as specified in Table 2 or 4 of 40 CFR 60, Subpart BBBB):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

(5) Opacity.

(6) Particulate matter.

(7) Hydrogen chloride.

(8) Fugitive ash.

(c) The test report that documents the initial stack tests including supporting calculations.

(d) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in appendix B of 40 CFR Part 60



in conducting the evaluation.

(e) The maximum demonstrated load of your municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device. Use values established during your initial stack test for dioxins/furans emissions and include supporting calculations.

(f) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the average carbon feed rates that you recorded during the initial stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in 40 CFR 60.1855(a)(1) and (2).

(g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in 40 CFR 60.1745.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 87: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1880, Subpart BBBB**

**Item 87.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 87.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Permittee shall submit the annual compliance report no later than February 1 of each year that follows the calendar year in which data was collected. Since permittee has an operating permit under title V of the CAA, permittee must submit semiannual reports.



Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 88: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1885, Subpart BBBB**

**Item 88.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 88.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

Permittee shall summarize data collected for all pollutants and parameters regulated under 40 CFR 60, Subpart BBBB. The summary must include the following twelve items:

(a) The results of the annual stack test, using appropriate units, for the following eight pollutants or parameters, as recorded under 40 CFR 60.1845(a):

- (1) Dioxins/furans.
- (2) Cadmium.
- (3) Lead.
- (4) Mercury.
- (5) Opacity.
- (6) Particulate matter.
- (7) Hydrogen chloride.
- (8) Fugitive ash.

(b) A list of the highest average levels recorded, in the



appropriate units. List those values for the following five pollutants or parameters:

- (1) Sulfur dioxide emissions.
  - (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
  - (3) Carbon monoxide emissions.
  - (4) Load level of the municipal waste combustion unit.
  - (5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average).
- (c) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system (40 CFR 60.1850(a)(1)).
- (d) For municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions, include the following four records:
- (1) The average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests.
  - (2) The lowest 8-hour block average carbon feed rate recorded during the year.
  - (3) The total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant.
  - (4) The required quarterly carbon usage of your municipal waste combustion plant calculated using equation 4 or 5 in 40 CFR 60.1935(f). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant.



(e) The total number of days that you did not obtain the minimum number of hours of data for six pollutants or parameters. Include the reasons you did not obtain the data and corrective actions that you have taken to obtain the data in the future. Include data on:

(1) Sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load level of the municipal waste combustion unit.

(5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.

(6) Carbon feed rate.

(f) The number of hours you have excluded data from the calculation of average levels (include the reasons for excluding it). Include data for the following six pollutants or parameters:

(1) Sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load level of the municipal waste combustion unit.

(5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.

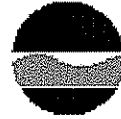
(6) Carbon feed rate.

(g) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year if you are eligible for alternative scheduling (40 CFR 60.1795(a) or (b)).

(h) A notice of your intent to begin a reduced stack



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testing schedule for other pollutants during the following calendar year if you are eligible for alternative scheduling (40 CFR 60.1795(a)).

(i) A summary of any emission or parameter level that did not meet the limits specified in 40 CFR 60, Subpart BBBB.

(j) A summary of the data in paragraphs (a) through (d) of this condition from the year preceding the reporting year which gives the department a summary of the performance of the municipal waste combustion unit over a 2-year period.

(k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in 40 CFR 60.1745.

(l) Documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 hours.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 89: Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1890, Subpart BBBB**

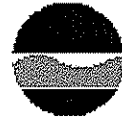
**Item 89.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 89.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

Permittee shall submit a semiannual report on any recorded emission or parameter level that does not meet the requirements specified in 40 CFR 60, Subpart BBBB.



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Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 90:    Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1895, Subpart BBBB**

**Item 90.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 90.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:  
Permittee shall:

(a) For data collected during the first half of a calendar year, submit its semiannual report by August 1 of that year.

(b) For data collected during the second half of the calendar year, submit its semiannual report by February 1 of the following year.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2007.  
Subsequent reports are due every 6 calendar month(s).

**Condition 91:    Compliance Certification**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1900, Subpart BBBB**

**Item 91.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 91.2:**  
Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Permittee shall include the following three items in any semiannual out-of-compliance report:

(a) For any of the following six pollutants or parameters that exceeded the limits specified in 40 CFR 60, Subpart BBBB, include the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and your corrective actions:

(1) Concentration or percent reduction of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, concentration of nitrogen oxides emissions.

(3) Concentration of carbon monoxide emissions.

(4) Load level of your municipal waste combustion unit.

(5) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.

(6) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.

(b) If the results of your annual stack tests (as recorded in 40 CFR 60.1845(a)) show emissions above the limits specified in Table 2 or 4 of Subpart BBBB as applicable for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and your corrective actions.

(c) For municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions, include the following two items:

(1) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from the carbon injection system operating parameter) is less than the



**New York State Department of Environmental Conservation**

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**Facility DEC ID: 3134600019**

highest carbon feed rate established during the most recent mercury and dioxins/furans stack test (as specified in 40 CFR 60.1855(a)(1)). Include the following four items:

- (i) Eight-hour average carbon feed rate.
  - (ii) Reasons for occurrences of low carbon feed rates.
  - (iii) The corrective actions you have taken to meet the carbon feed rate requirement.
  - (iv) The calendar date.
- (2) Documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include the following five items:

- (i) Amount of carbon purchased and delivered to the plant.
- (ii) Required quarterly usage of carbon.
- (iii) Reasons for not meeting the required quarterly usage of carbon.
- (iv) The corrective actions you have taken to meet the required quarterly usage of carbon.
- (v) The calendar date.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

**Condition 92: Compliance Certification**

**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable Federal Requirement: 40CFR 60.1905, Subpart BBBB**

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**Item 92.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-MBMWC

**Item 92.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requests to change semiannual or annual reporting dates:

(a) If the Department agrees, permittee may change the semiannual or annual reporting dates.

(b) Permittee should refer to 40 CFR 60.19(c) for procedures to seek approval to change the reporting date.

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.

Subsequent reports are due every 12 calendar month(s).



**STATE ONLY ENFORCEABLE CONDITIONS**  
**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**STATE ONLY APPLICABLE REQUIREMENTS**

**The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 93: Contaminant List**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable State Requirement: ECL 19-0301**

**Item 93.1:**

Emissions of the following contaminants are subject to contaminant specific requirements in this

**New York State Department of Environmental Conservation**  
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permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 001746-01-6  
Name: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

CAS No: 068131-74-8  
Name: ASHES (RESIDUES)

CAS No: 007440-43-9  
Name: CADMIUM

CAS No: 000630-08-0  
Name: CARBON MONOXIDE

CAS No: 007647-01-0  
Name: HYDROGEN CHLORIDE

CAS No: 007439-92-1  
Name: LEAD

CAS No: 007439-97-6  
Name: MERCURY

CAS No: 0NY210-00-0  
Name: OXIDES OF NITROGEN

CAS No: 0NY075-00-0  
Name: PARTICULATES

CAS No: 007446-09-5  
Name: SULFUR DIOXIDE

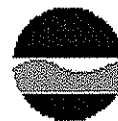
**Condition 94:    Unavoidable noncompliance and violations**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable State Requirement:    6NYCRR 201-1.4**

**Item 94.1:**

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

- (a)    The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued



for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

**Condition 95: Air pollution prohibited**  
**Effective between the dates of 07/28/2006 and 07/27/2011**

**Applicable State Requirement: 6NYCRR 211.2**

**Item 95.1:**

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.





\*\*\*\* Emission Unit Level \*\*\*\*

**Condition 96: Compliance Demonstration**  
Effective between the dates of 07/28/2006 and 07/27/2011

**Applicable State Requirement: 6NYCRR 617.11(d)**

**Item 96.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 1-MBMWC

**Item 96.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A. Continuous emission monitoring (CEM) shall be installed and operated on each furnace flue gas exhaust during incinerator operation. Equipment specification, calibration and operating procedures and data evaluation and reporting procedures must be submitted to the Department prior to replacement. All monitors and monitor locations shall be located in accordance with 40CFR60, Appendix B, except for those noted below.

B. The following parameters shall be continuously monitored:  
Nitrogen Oxides (NO<sub>x</sub>), Carbon monoxide\*, Oxygen, Opacity, Temperature, Steam flow, Air flow to combustion chamber, Flue gas temperature.

\* Carbon monoxide monitoring system shall be installed prior to any air pollution control equipment.

C. All continuous monitoring data shall be recorded and tabulated and summarized. In accordance with 6NYCRR Part 201-6.5(c)(2), all continuous monitoring data shall be kept on file at the facility for a period of not less than five years.

D. A quarterly report based on the CEM data shall be submitted to the Department. The report shall include excess emissions and out-of-compliance operating parameters. The report shall detail the exact nature and

**New York State Department of Environmental Conservation**  
**Permit ID: 3-1346-00019/00013      Facility DEC ID: 3134600019**



cause, if known, and corrective action, if any, that was taken. Submission of such reports shall not relieve the facility from compliance with the specific emissions limitations set forth in this permit and/or regulations.

Reference Test Method: 40 CFR 60, Appendix B and F  
Monitoring Frequency: CONTINUOUS  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 10/30/2006.  
Subsequent reports are due every 3 calendar month(s).

**APPENDIX 11-2**

**SOLID WASTE MANAGEMENT FACILITY PERMIT**

DEC PERMIT NUMBER <b>3-1346-00019/00012</b>
FACILITY/PROGRAM NUMBER(s) <b>14- E - 01</b>



**PERMIT**  
Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE <b>September 14, 2006</b>
EXPIRATION DATE <b>September 13, 2011</b>

## TYPE OF PERMIT (Check All Applicable Boxes)

☐ New
 ☒ Renewal
 ☐ Modification
 ☐ Permit to Construct
 ☒ Permit to Operate

<input type="checkbox"/> Article 15, Title 5: Protection of Water	<input type="checkbox"/> Article 17, Titles 7, 8: SPDES	<input type="checkbox"/> Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
<input type="checkbox"/> Article 15, Title 15: Water Supply	<input type="checkbox"/> Article 19: Air Pollution Control	<input type="checkbox"/> Article 34: Coastal Erosion Management
<input type="checkbox"/> Article 15, Title 15: Water Transport	<input type="checkbox"/> Article 23, Title 27: Mined Land Reclamation	<input type="checkbox"/> Article 36: Floodplain Management
<input type="checkbox"/> Article 15, Title 15: Long Island Wells	<input type="checkbox"/> Article 24: Freshwater Wetlands	<input type="checkbox"/> Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control
<input type="checkbox"/> Article 15, Title 27: Wild, Scenic & Recreational Rivers	<input type="checkbox"/> Article 25: Tidal Wetlands	<input type="checkbox"/> Other _____
<input type="checkbox"/> 6NYCRR 608: Water Quality Certification	<input checked="" type="checkbox"/> Article 27, Title 7; 6NYCRR 360: Solid Waste Management	

PERMIT ISSUED TO <b>Dutchess County Resource Recovery Agency</b>		TELEPHONE NUMBER <b>(845) 463-6020</b>	
ADDRESS OF PERMITTEE <b>96 Sand Dock Road, Poughkeepsie, NY 12601</b>			
CONTACT PERSON FOR PERMITTED WORK <b>Louis Rea, Acting Executive Director</b>		TELEPHONE NUMBER <b>(845) 463-6020</b>	
NAME AND ADDRESS OF PROJECT/FACILITY <b>Dutchess County Resource Recovery Agency</b>			
LOCATION OF PROJECT/FACILITY <b>Sand Dock Road</b>			
COUNTY <b>Dutchess</b>	TOWN <b>Poughkeepsie</b>	WATERCOURSE/WETLAND NO.	NYTM COORDINATES <b>E: 588.0 N: 4611.0</b>
DESCRIPTION OF AUTHORIZED ACTIVITY <b>Continue to operate a 450 ton per day mass burn waste-to-energy facility for permitted municipal waste and solid waste, with production of steam and electricity.</b>			

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

DEPUTY PERMIT ADMINISTRATOR <b>Alexander F. Ciesluk, Jr.</b>	ADDRESS <b>21 South Putt Corners Rd., New Paltz NY 12561</b>	<b>RSB</b>
AUTHORIZED SIGNATURE <i>Alexander F. Ciesluk, Jr.</i>	Date <b>September 14, 2006</b>	Page 1 of 8

DCRRA2 pmt(SB2)eh

**NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS****Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

**GENERAL CONDITIONS****General Condition 1: Facility Inspection by the Department**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**General Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**General Condition 3: Applications for Permit Renewals or Modifications**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

The permittee must submit a renewal application at least:

- a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
- b) 30 days before expiration of all other permit types.

Submission of applications for permit renewal or modification are to be submitted to:

NYSDEC Regional Permit Administrator, Region 3

21 South Putt Corners Road, New Paltz, NY 12561, telephone: (845) 256-3054

**General Condition 4: Permit Modifications, Suspensions and Revocations by the Department**

The Department reserves the right to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
- b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
- c) new material information is discovered; or
- d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

Forms/General.wpd

## **SPECIAL CONDITIONS**

For Article 27 Title 7 (Solid Waste Management)

### **REQUIRED SUBMITTALS AND SUBMITTAL PROCEDURES:**

1. Unless otherwise specified, all submittals required by this permit shall be submitted as follows:

**Two copies:**

New York State Department of Environmental Conservation  
Region 3 Office  
Regional Solid and Hazardous Materials Engineer (RSHME)  
21 South Putt Corners Rd  
New Paltz, New York 12561-1696

**One copy:**

New York State Department of Environmental Conservation  
Region 3 Office  
Regional Permit Administrator (RPA)  
21 South Putt Corners Rd.  
New Paltz, New York 12561-1696

**One copy:**

New York State Department of Environmental Conservation  
Division of Solid & Hazardous Materials  
Bureau of Solid Waste, Reduction and Recycling  
625 Broadway  
Albany, New York 12233-7253

All approvals required by this permit shall be obtained in writing from either the RSHME or the RPA or their designee, dependent upon the specific permit condition requiring such approval.

2. The permittee shall submit to the Department, for its review and approval, any supplementary information relating to compliance with this permit, 6NYCRR Part 360, and other applicable regulations, requested in writing by the Department. Supplementary information shall be submitted to the Department within a reasonable time-frame acceptable to the Department.
3. The permittee must submit revised plans and reports at any time that such revisions are necessary to comply with revised 6 NYCRR Part 360 regulations, if revised and/or whenever the permittee is notified by the Department that revisions are necessary to comply with 6 NYCRR Part 360 regulations effective November 1999, regardless of whether or not the plans or reports had been previously approved. These changes may be required due to events that may occur at this or other similar facilities.

### **NOTIFICATIONS**

4. Notice of the commencement of all portions of on-site construction activities, except for emergency repairs, must be made in writing to the RSHME at least 5 business days in advance of the activity. These activities include, but are not limited to, clearing and grading of any areas, construction of any building or other structure.
5. In the event that any structure or component that will have a major effect on the normal operation of the



## SPECIAL CONDITIONS

### For Article 27 Title 7 (Solid Waste Management)

facility becomes damaged or malfunctions in any way (such as a boiler shut down, crane malfunction, ash removal system and/or air pollution control failures, etc.) that require the facility to shut down any of the waste processing lines for greater than 12 hours, the permittee shall immediately notify the RSHME regarding the nature of the problem, the nature of emergency repairs which will be undertaken, and the schedule for completing the emergency repairs including when full operation will be resumed.

6. Notice of planned on-site activities of major repair, inspection, replacement of components of the facility, other than routine daily or weekly, and monthly maintenance operations, must be made to the RSHME in writing at least 5 business days in advance of the activity. These activities include, but are not limited to the annual scheduled cleaning, inspection and repair of the boilers.
7. Shut Down - If a shut-down of the entire facility occurs, the permittee must immediately notify the RSHME at (845) 256-3136. The information provided should include at a minimum the following: description of the incident that resulted in the unscheduled shutdown; an assessment of any impacts of the shutdown, including the disposition of any solid waste that will be/was diverted from the facility due to the shut down; and how long until restart and full operation of the facility. This information must be followed up in a letter to the RSHME within 15 calendar days.

### RECORD-KEEPING AND REPORTING

8. Quarterly report in accordance with Part 360 3.4 (f)(2) - A quarterly report must be submitted within 60 days following the end of each quarter. The report shall also include a separate identification of Regulated Medical Waste (RMW). The report must include a description of the disposition of any unacceptable or unauthorized RMW.
9. Monitoring Report - All reports for monitoring must be submitted with the next quarterly report following the receipt of the data.
10. An annual report including, but not limited to, the items listed in 6 NYCRR Part 360-3.4 (f) (3) and the items listed below shall be submitted to the Department, no later than 60 days after the first day of January of each year:
  - a) A summary and evaluation of the results of ash testing required by special condition # 25.
  - b) Inspection Report - An annual general facility inspection shall be undertaken to determine the operating condition of the safety, emergency, security, process and control equipment. This annual inspection must be performed under the direction of and certified by an individual licensed to practice engineering in the State of New York. The summary report of the annual inspection must be included in the annual report.
  - c) All information pertaining to the receipt and handling of RMW.
11. The permittee shall maintain a log of all complaints related to the operation of the facility, reported to the permittee by the public, Department staff or by facility employees, or other governmental agencies. Information contained in the log shall include the date and time of the incident, name of complainant or person reporting the incident, location of incident, general weather conditions, apparent source of complaint, corrective measures taken and the effectiveness of corrective measures. The log shall be kept on-site and available for inspection by Department staff throughout the duration of this permit.



## SPECIAL CONDITIONS

### For Article 27 Title 7 (Solid Waste Management)

12. Unless otherwise specified within this permit, at least ninety (90) days prior to the commencement of any new construction other than emergency repairs, the permittee shall submit to the Department for its review and approval, engineering plans for such construction which are in compliance with 6 NYCRR Part 360 regulations. Except for emergency repairs, no construction shall commence until written approval is received from the Department. Emergency repairs shall be carried out as specified in Special Condition # 28.

#### OPERATION AND MAINTENANCE:

13. The facility shall be operated in strict conformance with the provisions of:
- Special Conditions of this permit;
  - 6 NYCRR Part 360 regulations and any revisions hereafter promulgated; and
  - The following engineering plans and reports prepared by and any revisions to these plans and reports which are approved in writing by Department:
    - Permit Renewal Application dated January 28, 2004;
    - Operation & Maintenance Manual, Dated December 2004
    - The Spray Dryer Absorber and Carbon Injection System plan, dated March 2005, submitted with the letter dated May 3, 2005,
    - Variance request, dated August 1, 2006, from DCRRA approved by the Department in its letter dated September 5, 2006

In the event that any aspect of the above-referenced plans are found to be in conflict with applicable 6 NYCRR Part 360 regulations and/or a Special Condition of this permit, applicable 6 NYCRR Part 360 regulations and the Special Conditions of this permit shall be complied with unless a variance from a specific Part 360 provision, a permit modification or other written authorization is issued by the Department.

14. The permittee shall be allowed to continue to operate a 450 ton/day mass burn waste- to -energy facility.
15. The operation of the facility must be directed by a person who is certified pursuant to the American Society of Mechanical Engineers Qualification and Certification of Resource Recovery Facility Operators (ASME-QRO). The operation of the facility may be directed by a person who is provisionally certified pursuant to ASME-QRO for a period of up to two years. An extension may be granted by the Department upon request from the permittee.
16. The facility is authorized to accept:
- Non-hazardous municipal solid waste;
  - Non-hazardous commercial wastes;
  - Non-hazardous industrial wastes, including expired pharmaceuticals
  - Medical waste in compliance with Special Condition #'s 19 - 24.
17. The facility shall not accept the following wastes:
- liquid wastes;
  - any chemicals not specifically authorized by Special Condition #16 of this permit;





## **SPECIAL CONDITIONS**

### **For Article 27 Title 7 (Solid Waste Management)**

- c) explosives;
- d) regulated medical wastes as defined in ECL Section 27-1501(1), and regulations promulgated pursuant thereto unless in compliance with Special Condition #16d above;
- e) sewage sludge with less than 20% solids;
- f) septage;
- g) hazardous wastes as defined in 6 NYCRR Part 371;
- h) Any empty drum or container which has held hazardous waste and any drum not empty according to 40 CFR 261.7(a)(3);
- i) Any waste(s) regulated by 6 NYCRR Part 364, unless the waste hauler possesses a valid Part 364 permit which specifies this waste - to - energy facility as a disposal site for such waste; and
- j) Any special wastes, ash wastes or other wastes not specifically authorized by Special Condition #16 of this permit.

18. External storage of solid waste is prohibited with the exception that waste - to - energy ash which is kept in leak proof covered trailers may be temporarily stored outside prior to going to an authorized disposal facility. The recyclable and non-processable materials may be stored in containers which are properly covered, pending shipments to markets.

### **MEDICAL WASTE**

19. No treated medical waste (TRMW) shall be accepted at this facility from any regulated medical waste (RMW) treatment facility unless the RMW treatment facility has completed validation testing of each treatment unit in accordance with the requirements of 6NYCRR Part 360 - 17, or 10NYCRR Part 70 - 3. In addition, the RMW treatment facility must have a letter from DOH approving the validation testing results and identifying the minimum operating parameters for each treatment unit established by the validation testing.
20. All TRMW received at the facility shall be accompanied by properly completed RMW Certification Forms, in accordance with Subdivision 360 - 17.4(g).
21. All TRMW received at this facility shall be accompanied by Medical Waste Tracking Forms, in accordance with Part 364 - 9.
22. The permittee shall process all TRMW on a priority basis. All TRMW shall be processed overnight prior to receipt of the next day's refuse deliveries unless otherwise authorized by the RSHME.
23. At no time shall the TRMW in the pit be stored above the level of the tipping floor.
24. The permittee shall not bypass any TRMW to any landfill, unless the landfill is approved to receive such waste.

### **ASH TESTING**

25. Testing requirements and testing procedures for ash residue shall be in accordance with the requirements of Part 360 subpart 3.5 (c) and (d) as modified in the Department correspondence dated February 21, 1996.



## **SPECIAL CONDITIONS**

### **For Article 27 Title 7 (Solid Waste Management)**

#### **HOURS OF OPERATION**

26. Operations at this facility involving waste receipt shall be limited to the following:

Monday thru Friday 6:00 a.m. to 4:00 p.m.  
Saturday 7:30 a.m. to 12:00 p.m.

The facility shall not receive waste on Christmas Day, New Years Day, Thanksgiving Day, Memorial Day, July 4, Labor Day or any Sunday unless otherwise approved by the RSHME.

27. The permittee shall require that all vehicles delivering wastes to the site or hauling ash from the site be appropriately enclosed or covered, or their contents appropriately secured, so as to prevent dust and blowing litter. The permittee shall deny entry or exit (as appropriate) to any vehicle that does not comply with this condition.
28. In the event that the facility conducts emergency repairs necessary to abate and mitigate adverse impact to public health, public safety and/or the environment. Repairs shall be made in a manner which conforms with the approved Contingency Plan and which will restore the damaged structure or component to a condition which conforms with Part 360 regulations, the Special Conditions of this permit and the approved engineering plans/report. A report detailing the emergency repairs together with as-built plans shall be submitted to the Department within 14 business days following completion of the repair. Any modifications to the previously approved design which result from the emergency repair are carried out at the permittee's risk. In the event that such modifications are not found acceptable by the Department, the Department may require further work to restore the structure or component to a condition which conforms with requirements of Part 360 regulations, special Conditions of this permit and/or the previously approved engineering plans.

#### **LEACHATE MANAGEMENT:**

29. In the event that leachate is detected in drainage basins, along the exterior walls of the pit or building, notification to the Department shall be provided as required by Special Condition # 5. Within 5 days, the facility shall follow up the notification in writing. This notification shall include information such as but not limited to: any disruption of service or procedures, actions/procedures proposed to or are being taken to find and correct the problem.

#### **ADDITIONAL REQUIREMENTS:**

30. Representatives appearing in an official capacity from the Department, shall have access to the facility and all records & reports (including copying) pertaining to the facility for the purpose of ascertaining compliance or non-compliance with this permit and the Environmental Conservation Law of the facilities operation or collecting samples any time the site is operating.
31. Monthly meetings may be required by the DEC to discuss with the permittee the facility's compliance.
32. The provisions of this permit shall not be construed to limit the Department's authority as otherwise established by law or regulation.



## **SPECIAL CONDITIONS**

### **For Article 27 Title 7 (Solid Waste Management)**

33. The Department may require additional conditions to be imposed on the permittee in response to requests by the permittee for special approvals of activities on a temporary basis.
34. The permittee must not accept at the facility solid waste that originates from a municipality that has not completed a comprehensive recycling analysis satisfying the requirements of subdivision 360-1.9(f) of this Part and implemented the recyclables recovery program determined to be feasible by the analysis, unless the Department approves a local solid waste management plan that addresses all components of such an analysis, takes effect and that analysis addresses the waste stream of that municipality.

### **STATE ENVIRONMENTAL QUALITY REVIEW**

Under the State Environmental Quality Review Act (SEQR), this project has been determined to be a Type II Action and therefore is not subject to further procedures under this law.

#### **Distribution:**

S. Mills - Henningson, Durham & Richardson, PC  
R. Stanton/P.Mehta  
K.Grzyb  
T. Lynch (7253)

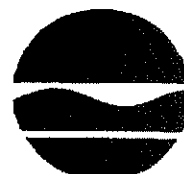
# New York State Department of Environmental Conservation

## Division of Environmental Permits, Region 3

21 South Putt Corners Road, New Paltz, New York 12561-1620

Phone: (845) 256-3000 • FAX: (845) 255-3042

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Denise M. Sheehan  
Commissioner

### IMPORTANT NOTICE TO ALL PERMITTEES

The permit you requested is enclosed. Please read it carefully and note the conditions that are included in it. The permit is valid for only that activity expressly authorized therein; work beyond the scope of the permit may be considered a violation of law and be subject to appropriate enforcement action. Granting of this permit does not relieve the permittee of the responsibility of obtaining any other permission, consent or approval from any other federal, state, or local government which may be required.

Please note the expiration date of the permit. Applications for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

The DEC permit number & program ID number noted on page 1 under "Permit Authorization" of the permit are important and should be retained for your records. These numbers should be referenced on all correspondence related to the permit, and on any future applications for permits associated with this facility/project area.

If a permit notice sign is enclosed, you must post it at the work site with appropriate weather protection, as well as a copy of the permit per General Condition 1.

If the permit is associated with a project that will entail construction of new water pollution control facilities or modifications to existing facilities, plan approval for the system design will be required from the appropriate Department's regional Division of Water or delegated local Health Department, as specified in the State Pollutant Discharge Elimination System (SPDES) permit.

If you have any questions on the extent of work authorized or your obligations under the permit, please contact me at (845) 256-3051.

SB  
Scott Ballard  
Division of Environmental Permits  
Region 3

☐ Applicable Only if Checked for **STORMWATER SPDES INFORMATION**: We have determined that your project qualifies for coverage under the General Stormwater SPDES Permit. You must now file a Notice of Intent to obtain coverage under the General Permit. This form can be downloaded at: <http://www.dec.state.ny.us/website/dcs/spdes/>

Send the complete form to: NYS DEC, Stormwater Permitting, Division of Water, 625 Broadway  
Albany, New York 12233-3505

In addition, DEC requests that you provide one electronic copy of the SWPPP directly to Pat Ferracane at NYS DEC, 100 Hillside Avenue - Suite 1W, White Plains, NY 10603-2860

## **APPENDIX 11-3**

### **USEPA 40 CFR 60 SUBPART BBBB REQUIREMENTS**

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 3-1346-00019/00013    Renewal Number: 1**

**07/31/2006**



**Facility Identification Data**

Name: DUTCHESS CO RESOURCE RECOVERY FACILITY  
Address: 98 SAND DOCK RD  
POUGHKEEPSIE, NY 12601

**Owner/Firm**

Name: DUTCHESS CO RESOURCE RECOVERY AGENCY  
Address: 96 SAND DOCK RD  
POUGHKEEPSIE, NY 12601-5444, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

Air Permitting Contact:  
Name: C SCOTT DANIELS  
Address: 41 SAND DOCK ROAD  
POUGHKEEPSIE, NY 12601

**Permit Description**

**Introduction**

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

**Summary Description of Proposed Project**

Application for renewal of Air Title V Permit.

**Attainment Status**

DUTCHESS CO RESOURCE RECOVERY FACILITY is located in the town of POUGHKEEPSIE in the county of DUTCHESS.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT

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Sulfur Dioxide (SO <sub>2</sub> )	ATTAINMENT
Ozone*	MODERATE NON-ATTAINMENT
Oxides of Nitrogen (NO <sub>x</sub> )**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

\* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NO<sub>x</sub>) which are ozone precursors.

\*\* NO<sub>x</sub> has a separate ambient air quality standard in addition to being an ozone precursor

#### Facility Description

THIS FACILITY COMBUSTS MSW RECOVERING ENERGY AS STEAM IN THE TWO BOILERS, WHICH HAVE THE CAPABILITY TO PRODUCE 118,000 LB/HR, 625 PSIG, 700 DEG F. STEAM. THE STEAM IS USED TO DRIVE A 9.2 MW TURBINE GENERATOR. ELECTRICITY IN EXCESS OF THE FACILITY USE IS SOLD TO CENTRAL HUDSON ELECTRIC & GAS COMPANY. DEPENDING ON ECONOMIC FACTORS, UP TO 50,000 LB/HR STEAM AT 175 PSIG AND 470 DEG F. MAY BE EXTRACTED FROM THE TURBINE AND DELIVERED TO THE ADJACENT IBM FACILITY. THE PRIMARY FUEL COMBUSTED IS MSW. HOWEVER, DURING STARTUP AND SHUTDOWN OPERATIONS, NATURAL GAS IS FIRED TO MAINTAIN MINIMUM FLUE GAS TEMPERATURE AS REQUIRED. NATURAL GAS IS ALSO USED AT TIMES WHEN BURNING MSW RESULTS IN ELEVATED CO EMISSIONS. THE FACILITY IS EQUIPPED WITH A DRY LIME AND SORBENT INJECTION (DSI) SYSTEM FOLLOWED BY A FABRIC FILTER SYSTEM (BAGHOUSE), USED TO CONTROL ACID GAS AND PARTICULATE EMISSIONS. LIME AND SORBENT IS INJECTED INTO THE FLUE GAS DUCTWORK JUST AHEAD OF THE 6-COMPARTMENT REVERSE-AIR CLEANING BAGHOUSE. EACH COMBUSTION TRAIN HAS ITS OWN EMISSIONS CONTROL SYSTEM AND DISCHARGES THROUGH ITS OWN FLUE THAT IS LOCATED IN A COMMON STACK. THE FACILITY HAS A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) THAT MEETS ALL APPLICABLE REQUIREMENTS OF 40CFR PART 60, APPENDIX B AND F.

#### Permit Structure and Description of Operations

The Title V permit for DUTCHESS CO RESOURCE RECOVERY FACILITY is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus,

## New York State Department of Environmental Conservation

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contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device.

[NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

combustion	-	devices which burn fuel to generate heat, steam or power
incinerator	-	devices which burn waste material for disposal
control	-	emission control devices
process	-	any device or contrivance which may emit air contaminants that is not included in the above categories.

DUTCHESS CO RESOURCE RECOVERY FACILITY is defined by the following emission unit(s):  
Emission unit 1MBMWC - TWO (2) ROTARY COMBUSTORS (RC-120) WITH INTEGRATED BOILERS EACH CAPABLE OF COMBUSTING APPROXIMATELY 228 TONS PER DAY OF MSW HAVING A HEATING VALUE OF 4500 BTU/LB, BOTH MWC/BOILER EMISSIONS UNITS ARE HOUSED IN THE SAME BUILDING. THE FACILITY BURNS MSW AS DEFINED IN 6NYCRR PARTS 219 AND 360.

Emission unit 1MBMWC is associated with the following emission points (EP):  
FLUE1, FLUE2

It is further defined by the following process(es):

Process: MSW is located at GROUND, Building PROBDG - TWO MUNICIPAL WASTE COMBUSTORS, EACH COMBUSTOR CAPABLE OF BURNING 228 TPD OF MSW. MSW INCLUDES HOUSEHOLD WASTE, NON-HAZARDOUS COMMERCIAL AND INDUSTRIAL WASTES, EXPIRED PHARMACEUTICALS, DOCUMENTS, EXPIRED OR UNMARKETABLE CONSUMER GOODS, COMBUSTIBLE CONSTRUCTION AND DEMOLITION DEBRIS, AND TREATED AND DESTROYED MEDICAL WASTE.

Process: STS is located at GROUND, Building PROBDG - TWO MWC COMBUSTORS FIRING NATURAL GAS DURING STARTUP, SHUTDOWN, AND UPSET CONDITIONS.

#### Title V/Major Source Status

DUTCHESS CO RESOURCE RECOVERY FACILITY is subject to Title V requirements. This determination is based on the following information:

Oxides of Nitrogen emissions greater than 250 Tons per year.

#### Program Applicability

The following chart summarizes the applicability of DUTCHESS CO RESOURCE RECOVERY FACILITY with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	YES



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NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	NO
SIP	YES

### NOTES:

**PSD** Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NSR** New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NESHAP** National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

**MACT** Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

**NSPS** New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific

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contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

### Compliance Status

Facility is in compliance with all requirements

### SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

### SIC Code

4931

### Description

ELEC & OTHER SERVICES COMBINED

### SCC Codes

SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor

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information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

### SCC Code

5-03-001-13

### Description

SOLID WASTE DISPOSAL - INDUSTRIAL  
SOLID WASTE DISPOSAL: INDUSTRIAL - INCINERATION  
SOL WST DISP: INCINRTN-INDUSTRIAL: MASS BURN ROTARY WATERWALL COMBUSTOR

### Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
001746-01-6	2,3,7,8-TETRACHLORODIBENZO-P-D IOXIN (HAP)		> 0 but < 10 tpy
068131-74-8	ASHES (RESIDUES)		>= 2.5 tpy but < 10 tpy
007440-41-7	BERYLLIUM (HAP)		> 0 but < 10 tpy
007440-43-9	CADMIUM (HAP)		> 0 but < 10 tpy
000630-08-0	CARBON MONOXIDE	494000	
0NY100-00-0	HAP		>= 250 tpy
007647-01-0	HYDROGEN CHLORIDE (HAP)	578000	
007664-39-3	HYDROGEN FLUORIDE (HAP)	14600	
007439-92-1	LEAD (HAP)	7400	
007439-97-6	MERCURY (HAP)	1400	
0NY210-00-0	OXIDES OF NITROGEN	974000	
0NY075-00-0	PARTICULATES	48300	
0NY075-00-5	PM-10		>= 25 tpy but < 40 tpy
007446-09-5	SULFUR DIOXIDE	420000	
0NY998-00-0	VOC	70000	

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 3-1346-00019/00013    Renewal Number: 1**

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**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A:            Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B:            Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

**Item C:            Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

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- Item D:                    Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**  
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item E:                    Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**  
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item F:                    Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**  
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item G:                    Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)**  
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.
- Item H:                    Property Rights - 6 NYCRR Part 201-6.5(a)(6)**  
  
This permit does not convey any property rights of any sort or any exclusive privilege.
- Item I:                    Severability - 6 NYCRR Part 201-6.5(a)(9)**  
  
If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

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**Item J:                    Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i.            The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii.          The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii.        The applicable requirements of Title IV of the Act;
- iv.        The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K:                    Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i.            If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit

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or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L:**

**Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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### Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

### NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

### Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

## Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Short Description	Condition
FACILITY	ECL 19-0301	Powers and Duties of the Department with respect to air pollution control	93
1-MBMWC	40CFR 52-A.21	Prevention of Significant Deterioration	45
1-MBMWC	40CFR 52-A.21(j)(2)	Best Available Control Technology (BACT) (see narrative)	49
FACILITY	40CFR 60-BBBB	Applicability of 40 CFR 60, Subpart BBBB	32
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1-MBMWC	40CFR 60-BBBB.1690	MWC Unit Operating Practices Requirements	52, 53
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Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-301.

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6NYCRR Part 200-.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6NYCRR Part 200-.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All

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required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

#### 6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

#### 6NYCRR 201-6.5(a)(4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

#### 6NYCRR 201-6.5(a)(7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

#### 6NYCRR 201-6.5(a)(8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

#### 6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

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#### 6NYCRR Part 201-6.5(c)(2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

#### 6NYCRR Part 201-6.5(c)(3)(ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

#### 6NYCRR 201-6.5(d)(5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

#### 6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

#### 6NYCRR 201-6.5(f)(6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

#### 6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

#### 6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

#### 6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

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#### 6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

#### 6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

#### 6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

#### 40 CFR Part 68.

This Part lists the regulated substances and their applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

#### 40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

### **Facility Specific Requirements**

In addition to Title V, DUTCHESS CO RESOURCE RECOVERY FACILITY has been determined to be subject to the following regulations:

#### 40CFR 52-A.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

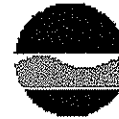
#### 40CFR 52-A.21 (j) (2)

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BACT determinations are made on a case-by-case basis and can be no less stringent than any requirement that exists in the current State Implementation Plan (SIP) or 40 CFR 60 and 61. Emission and operational limitations required from a BACT determination will have to be entered into the special permit conditions, separately by the permit reviewer.

#### 40CFR 60-BBBB

This regulation outlines the federal Emission Guidelines and Compliance Times (40 CFR Part 60, Subpart BBBB) for Small Municipal Waste Combustion (MWC) Class I and Class II Units Constructed on or before August 30, 1999. It applies to each municipal waste combustor unit that has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste.

Class I units are those small MWC units that are located at an MWC combustor plant with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste.

Class II units are those small MWC units that are located at an MWC combustor plant with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste.

#### 40CFR 60-BBBB.1650

This section describes who must complete the municipal waste combustor operator training course, and by when.

#### 40CFR 60-BBBB.1655

This section describes the MWC employees who are required to complete a plant-specific training course.

#### 40CFR 60-BBBB.1660

This section describes what plant-specific training must be provided.

#### 40CFR 60-BBBB.1665

This section describes eleven (11) items which the Permittee must include in the plant-specific operating manual:

:

#### 40CFR 60-BBBB.1670

This condition indicates where the plant specific operating manual should be located, and the parties that the manual should be available for review or inspection by.

#### 40CFR 60-BBBB.1675

This section describes the type and the timeframe of operator certification required for all chief facility operators and shift supervisors at Class I & Class II MWC units.

#### 40CFR 60-BBBB.1680

This section describes employees that may operate MWC units

#### 40CFR 60-BBBB.1685

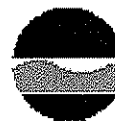


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tem ###.1:

This section describes the operational requirements that must be followed if the certified chief facility operator and certified shift supervisor are both temporally off-site. Specific operational and notification requirements are specified depending on the length of time that a certified chief facility operator and certified shift supervisor are off-site.

#### 40CFR 60-BBBB.1690

This section describes the municipal waste combustor (MWC) operating practices requirements for MWC unit load level, activated carbon feed rate and the particulate matter control device

#### 40CFR 60-BBBB.1695

This section describes operating requirements during periods of startup, shutdown, and malfunction.

#### 40CFR 60-BBBB.1705 (a) (1)

This section sets forth the permissible emissions from Class I small municipal waste combustor units for cadmium, lead, mercury, carbon monoxide, nitrogen oxides, sulfur dioxide, hydrogen chloride, dioxins / furans, particulate matter, opacity and fugitive ash emissions.

#### 40CFR 60-BBBB.1705 (a) (3)

This section sets forth the permissible emissions from Class I and Class II small municipal waste combustor units for carbon monoxide.

#### 40CFR 60-BBBB.1710

This section describes the emission limits during periods of start-up, shutdown, and malfunction.

#### 40CFR 60-BBBB.1720

This section describes the continuous emission monitoring systems which must be installed for the gaseous pollutants (oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide).

#### 40CFR 60-BBBB.1730

This section describes the operating / evaluation requirements for continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.

#### 40CFR 60-BBBB.1750

This section sets forth continuous emission monitoring systems data collection requirements.

#### 40CFR 60-BBBB.1755

This section describes how to convert 1 hr. arithmetic averages into appropriate averaging time and units

#### 40CFR 60-BBBB.1760

This section sets forth continuous opacity monitoring system requirements.

#### 40CFR 60-BBBB.1775

This section sets forth the stack testing requirements for emissions of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

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40CFR 60-BBBB.1795 (b)

This section sets forth the requirements for alternative dioxins/furans emissions stack testing at Class I small municipal waste combustor plants. The section allows the Permittee to test less often for dioxins/furans emissions if all municipal waste combustion units have demonstrated a level of dioxins/furans emissions less than or equal to 15 nanograms per dry standard cubic meter (total mass), for 2 consecutive years.

40CFR 60-BBBB.1805

This section sets forth municipal waste combustor load level, temperature and carbon feed rate monitoring requirements:

40CFR 60-BBBB.1830

This section sets forth the recordkeeping requirements (40 CFR 60.1830 through 60.1855) which the permittee must comply with.

40CFR 60-BBBB.1835

This section describes the location for keeping records and the duration that records shall be kept.

40CFR 60-BBBB.1840

This section describes the records that the permittee must keep for operator training and certification.

40CFR 60-BBBB.1845

This section describes the records that must be kept for stack tests.

40CFR 60-BBBB.1850

This section describes the records that must be kept for continuously monitored pollutants or parameters.

40CFR 60-BBBB.1855

This section describes the records that must be kept for municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions.

40CFR 60-BBBB.1860

This section sets forth the reporting requirements (40 CFR 60.1860 through 60.1905) which the permittee must comply with.

40CFR 60-BBBB.1865

This section specifies the appropriate units of measurement for reporting emissions data.

40CFR 60-BBBB.1875

This section describes the information that must be included in the permittee's initial compliance report.

40CFR 60-BBBB.1880

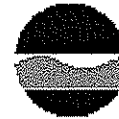
This section describes when the permittee must submit its annual compliance report.

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40CFR 60-BBBB.1885

This section describes the information that the permittee must include in its annual compliance report.

40CFR 60-BBBB.1890

This section sets forth the reporting requirements that the Permittee must follow if it finds that its facility is out of compliance with the requirements of Subpart BBBB.

40CFR 60-BBBB.1895

This section sets forth the dates that the permittee must submit its required semiannual compliance reports.

40CFR 60-BBBB.1900

This section describes the information that the permittee must include in any semiannual out-of-compliance report.

40CFR 60-BBBB.1905

This section describes the requirements that must be met to change the semiannual or annual reporting dates.

40CFR 60-E.53 (a)

This section requires that the owner or operator of any incinerator meeting the applicability requirements of 40 CFR 60 Subpart E, record the daily charging rates and hours of operation of the incinerator.

6NYCRR 200.3

No person shall make a false statement in connection with applications, plans, specifications and/or reports submitted pursuant to this Subchapter.

6NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5 (f) (1)

This regulation defines, in general terms, the operational flexibility provisions associated with alternate operating scenarios. Alternate operating scenarios refer to a range of operating conditions which are defined in the permit and which allow the source the flexibility to make specified changes without requiring a permit revision. These changes cannot violate any applicable requirement and must be tracked and recorded in a log at the source.

6NYCRR 201-7.1

This subpart specifies how a source owner or operator may opt to avoid being subject to one or more applicable requirements to which the source or unit would have otherwise been subject, or where needed to establish an emission reduction credit by accepting federally-enforceable permit conditions restricting or capping emissions.

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#### 6NYCRR 202-1.2

This regulation specifies that the department is to be notified at least 30 days in advance of any required stack test. The notification is to include a list of the procedures to be used that are acceptable to the department. Finally, free access to observe the stack test is to be provided to the department's representative.

#### 6NYCRR 202-1.3

This regulation requires that any emission testing, sampling and analytical determination used to determine compliance must use methods acceptable to the department. Acceptable test methods may include but are not limited to the reference methods found in 40 CFR Part 60 appendix A and Part 61, appendix B. Alternate methods may be also be used provided they are determined to be acceptable by the department. Finally, unless otherwise specified, all emission test reports must be submitted within 60 days after completion of testing.

#### 6NYCRR 202-1.4

This regulation allows the department discretion to conduct separate or additional emission tests, including preparation of the testing site, at the source owner's expense, to determine compliance.

#### 6NYCRR 202-1.5

This rule prohibits the concealment of an emission by the use of air or other gaseous diluents (diluting agents) to achieve compliance with an emission standard which is based on the concentration of a contaminant in the gases emitted through a stack.

#### 6NYCRR 219-5.5

This section sets forth action which the department may take, for abatement purposes, where it has reason to believe that an incinerator installation is violating the emission standards of Section 219-5.2, of Subpart 219-5.2.

#### 6NYCRR 219-8.1

This regulation incorporates by reference the federal Emission Guidelines and Compliance Times (40 CFR Part 60, Subpart BBBBB) for Small Municipal Waste Combustion (MWC) Class I and Class II Units Constructed on or before August 30, 1999. It applies to each municipal waste combustor unit that has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste.

Class I units are those small MWC units that are located at an MWC combustor plant with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste.

Class II units are those small MWC units that are located at an MWC combustor plant with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste.

#### 6NYCRR 219-8.3

This section provides the required 40 CFR 60, Subpart BBBBB detailed compliance schedules for Class I and Class II small municipal waste combustor units.

#### 6NYCRR 617.11 (d)

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### 617.11 DECISION-MAKING AND FINDINGS REQUIREMENTS.

(a) Prior to the lead agency's decision on an action that has been the subject of a final EIS, it shall afford agencies and the public a reasonable time period (not less than 10 calendar days) in which to consider the final EIS before issuing its written findings statement. If a project modification or change of circumstance related to the project requires a lead or involved agency to substantively modify its decision, findings may be amended and filed in accordance with subdivision 617.12(b) of this Part.

(b) In the case of an action involving an applicant, the lead agency's filing of a written findings statement and decision on whether or not to fund or approve an action must be made within 30 calendar days after the filing of the final EIS.

(c) No involved agency may make a final decision to undertake, fund, approve or disapprove an action that has been the subject of a final EIS, until the time period provided in subdivision 617.11(a) of this section has passed and the agency has made a written findings statement. Findings and a decision may be made simultaneously.

(d) Findings must:

- (1) consider the relevant environmental impacts, facts and conclusions disclosed in the final EIS;
- (2) weigh and balance relevant environmental impacts with social, economic and other considerations;
- (3) provide a rationale for the agency's decision;
- (4) certify that the requirements of this Part have been met;
- (5) certify that consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

(e) No state agency may make a final decision on an action that has been the subject of a final EIS and is located in the coastal area until the agency has made a written finding that the action is consistent with applicable policies set forth in 19 NYCRR 600.5. When the Secretary of State has approved a local government waterfront revitalization program, no state agency may make a final decision on an action, that is likely to affect the achievement of the policies and purposes of such program, until the agency has made a written finding that the action is consistent to the maximum extent practicable with that local waterfront revitalization program.

### Compliance Certification

Summary of monitoring activities at DUTCHESS CO RESOURCE RECOVERY FACILITY:

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
1-MBMWC	intermittent emission testing	49
1-MBMWC	monitoring of process or control device parameters as surrogate	52
1-MBMWC	record keeping/maintenance procedures	53
1-MBMWC	record keeping/maintenance procedures	54
1-MBMWC	intermittent emission testing	55
1-MBMWC	intermittent emission testing	56
1-MBMWC	intermittent emission testing	57
1-MBMWC	intermittent emission testing	58

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1-MBMWC	intermittent emission testing	59
1-MBMWC	intermittent emission testing	60
1-MBMWC	intermittent emission testing	61
1-MBMWC	monitoring of process or control device parameters as surrogate	62
1-MBMWC	continuous emission monitoring (cem)	63
1-MBMWC	monitoring of process or control device parameters as surrogate	64
1-MBMWC	intermittent emission testing	65
1-MBMWC	continuous emission monitoring (cem)	66
1-MBMWC	continuous emission monitoring (cem)	67
1-MBMWC	continuous emission monitoring (cem)	68
1-MBMWC	record keeping/maintenance procedures	69
1-MBMWC	record keeping/maintenance procedures	70
1-MBMWC	record keeping/maintenance procedures	71
1-MBMWC	record keeping/maintenance procedures	72
1-MBMWC	record keeping/maintenance procedures	73
1-MBMWC	record keeping/maintenance procedures	74
1-MBMWC	record keeping/maintenance procedures	75
1-MBMWC	intermittent emission testing	76
1-MBMWC	record keeping/maintenance procedures	77
1-MBMWC	record keeping/maintenance procedures	78
1-MBMWC	record keeping/maintenance procedures	79
1-MBMWC	record keeping/maintenance procedures	80
1-MBMWC	record keeping/maintenance procedures	81
1-MBMWC	record keeping/maintenance procedures	82
1-MBMWC	record keeping/maintenance procedures	83
1-MBMWC	record keeping/maintenance procedures	84
1-MBMWC	record keeping/maintenance procedures	85
1-MBMWC	record keeping/maintenance procedures	86
1-MBMWC	record keeping/maintenance procedures	87
1-MBMWC	record keeping/maintenance procedures	88
1-MBMWC	record keeping/maintenance procedures	89
1-MBMWC	record keeping/maintenance procedures	90
1-MBMWC	record keeping/maintenance procedures	91
1-MBMWC	record keeping/maintenance procedures	92
FACILITY	record keeping/maintenance procedures	5
FACILITY	record keeping/maintenance procedures	6
1-MBMWC	record keeping/maintenance procedures	44
1-MBMWC	record keeping/maintenance procedures	45
FACILITY	record keeping/maintenance procedures	7
1-MBMWC	record keeping/maintenance procedures	96

### Basis for Monitoring

As required per regulations.