VEOLIA
ENVIRONMENTAL SERVICES

(Fed-Ex'd)

August 15, 2013

Mr. David Ogulei
US Environmental Protection Agency
Region 5
77 West Jackson Blvd
Mail Code: AR-18J
Chicago, IL 60604-3507

Dear Mr. Ogulei,

Enclosed are two copies of the Addendum to Application for Renewal of a Major Source Operating Permit for the Veolia ES Technical Solutions, L.L.C. Sauget, Illinois facility. The Addendum is comprised of the Veolia Title V permit renewal application submitted in April 2013 and all information referenced in the April 2013 submittal. Previously referenced material is included now in expanded form, as requested, to aid the review process.

If you have any questions on this submittal or would like to meet and discuss this addendum, please call Dennis Warchol or Doug Harris at (618) 271-2804.

Sincerely,

Nancy L. Paddock

Nancy L. Paddock
Environmental Engineering Specialist

Att.

C: EPA File

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ADDENDUM TO APPLICATION FOR RENEWAL OF A MAJOR SOURCE OPERATING PERMIT

Veolia ES Technical Solutions
#7 Mobile Avenue
Sauget, Illinois 62201

AUGUST 2013

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APPENDICES

TITLE V PERMIT APPLICATION FOR RENEWAL
ADDENDUM TO RENEWAL APPLICATION

I. COMPLIANCE CERTIFICATION

In accordance with 40 CFR 71.5(c)(9), the following certification for this application document is provided.

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.

Authorized Signature: Douglas Harris

Responsible Official

General Manager

Title

Douglas Harris

Typed or Printed Name of Signatory

8 / 15 / 13

Date

A compliance certification will be submitted annually to the appropriate agencies. In addition, a description of all monitoring, recordkeeping, and reporting requirements and the methods used to demonstrate compliance is included in subsequent sections of this document. The facility and all emission units are in compliance with the enhanced monitoring and compliance certification requirements of the Clean Air Act.

II. INTRODUCTION

Veolia ES Technical Solutions, L.L.C. (Veolia) is submitting this addendum to the Title V permit renewal application, submitted to USEPA April 9, 2013, in accordance with the federal operating permits program in 40 CFR Part 71. The application and the addendum are for renewal of Veolia's Title V Permit to Operate No. V-IL-12716300103-08-01, which expires October 12, 2013. The permit is for the operation of Veolia's hazardous waste storage and treatment facility in Sauget, Illinois. USEPA Part 71 application forms are provided in Section IX of this document. The additional narrative that follows is also included to supplement the information on the forms and to present relevant information about the facility and its operations.

III. FACILITY DESCRIPTION

Veolia ES Technical Solutions, L.L.C. (Veolia) operates a commercial hazardous waste facility in Sauget, Illinois. The facility receives a variety of liquid, solid, and gaseous waste for treatment in incineration systems. The facility includes waste receiving areas; waste staging and storage for small and large containers, drums, bulk solids, tank trucks, and cylinders; three incinerators and their associated equipment; a laboratory; and other site infrastructure and facilities necessary to support the operations. Figures 1a – 1d provide facility site layout information. (Figures are provided in Appendix C.)

A. Air Permit History

Veolia has received the construction permits from the Illinois Environmental Protection Agency (IEPA) listed below for the emission units at the Sauget facility. A previously permitted emission unit, incineration Unit 1, covered under permit #83080072 has been dismantled and removed from site.

Unit 1 (removed from service)	#83080072	
Shredder system	#84060063	8/8/84
Unit 2 & 3 Construction & Tank Farm #1 Permit	#83120053	9/2/86 and revisions
Pneumatic Conveyor	#87110052	2/11/88
Residue Feed System for Unit 1	#87120069	4/13/88
Unit 3 Construction Permit	#87100024	8/19/88 and revisions
Unit 4 Construction Permit	#88010001	8/3/88 and revisions
Tank Farm #3 Permit	#88030001	6/27/88
Specialty Feeder for Unit 3	#93030107	6/7/93
Cleaver Brooks Boiler 1	#95080025	
Activated Carbon Injection Unit 4	#00110030	

Copies of the construction permits for the active emission units are provided in Appendix F.

B. Process Information

Liquid wastes are received at the facility in tank trucks and drums. Gaseous (and some liquid) wastes arrive in various sized cylinders. Bulk solids are received at the site primarily in 20- to 40-yard roll-off containers or other similar bulk transport vehicles. Solid wastes are also received in containers such as drums, totes, and Gaylord boxes. Wastes are stored prior to incineration and either fed directly to an incinerator, repackaged into smaller charge containers for incineration, or sent off-site for treatment at other locations.

Fixed-hearth incinerators Unit 2 and Unit 3 are designed to receive containerized wastes, aqueous liquid wastes, organic liquid wastes, specialty liquid wastes, and sludge wastes. The aqueous and organic liquid wastes are fed through air-atomizing nozzles. The specialty liquid feeds and direct-inject liquids are fed through the aqueous or organic liquid feed systems. Each incinerator can receive any combination of liquid, semi-solid, or solid wastes. Unit 2 can also

receive waste gases through separate feed nozzles. The rotary kiln incinerator Unit 4 can incinerate container, aqueous liquid, organic liquid, specialty liquid, and sludge wastes. Liquid wastes are fed into either the kiln or Secondary Combustion Chamber (SCC). Bulk solid wastes are fed into the kiln through either the ram feeder or the screw auger. Containerized wastes are fed into the kiln through the ram feeder or the auxiliary ram feeder. Unit 4 can also accept liquid wastes injected directly from the delivery vehicle.

The incinerators produce ash, which enters the Ash Handling System. Ash from Units 2 and 3 is staged in roll-off containers temporarily at the Ash Storage Building. From here it is transported to the Bulk Feed Building. Ash from Unit 4 is collected in roll-off containers and transported to Storage Building #7. Emissions of particulate matter are minimized through work practices such as wet handling, covering with a tarp, and handling inside enclosed structures. The sections below provide detailed information for the processing operations at the facility.

1. Storage Units

Upon arrival, wastes are sampled according to the facility's Waste Analysis Plan and Feed Stream Analysis Plan and analyzed at Veolia's on-site laboratory. Bulk liquid wastes may be transferred to Tank Farm #1 or Tank Farm #3 for bulk storage and blending or directly into Unit 2, 3, or 4 for incineration. Containerized liquid wastes (drums) may be transferred via drum pumps to Tank Farm #1 for bulk storage or directly into Unit 2 or 3 for incineration.

a. Tanks

Bulk liquids are stored at Tank Farm #1 and Tank Farm #3. All bulk liquid tanks are vertical, fixed-roof tanks equipped with carbon canisters for control of volatile organics. See Figures 2 and 3 for tank farm process flow diagrams. Figure 4 depicts a typical tank-to-carbon-canister flow diagram. (Figures are provided at the end of this section.) Tank Farm #1 includes ten bulk liquid waste tanks (2, 4, 6, 8, 10, 20, 30, 40, 50, and 60) and supplies bulk liquid waste to Units 2 and 3.

Tank Farm #3 includes eight bulk liquid waste tanks (300, 302, 304, 306, 308, 310, 312, and 314) and supplies bulk liquid waste to Unit 4. Tank Farm #3 also includes a vertical, fixed-roof tank that stores No. 2 fuel oil (Tank 390).

Other fuel tanks on site include a horizontal kerosene tank, two horizontal diesel fuel tanks, and a horizontal gasoline tank. These fuel tanks are used to supply fuel to on-site company vehicles and for fire suppression system pump.

Table 1. Waste Storage Tanks and Carbon Canisters			
Location	**Number**	**Capacity (gallons)**	**Control – Carbon Canister Number**
Tank Farm #1	2	4,931	2
Tank Farm #1	4	4,931	4
Tank Farm #1	6	7,200	6
Tank Farm #1	8	5,280	8
Tank Farm #1	10	12,869	10
Tank Farm #1	20	12,869	20
Tank Farm #1	30	12,869	30
Tank Farm #1	40	12,869	40
Tank Farm #1	50	12,869	50
Tank Farm #1	60	12,869	60
Tank Farm #3	300	30,000	300
Tank Farm #3	302	30,000	302
Tank Farm #3	304	30,000	304
Tank Farm #3	306	30,000	306
Tank Farm #3	308	30,000	308
Tank Farm #3	310	30,000	310
Tank Farm #3	312	10,000	312
Tank Farm #3	314	10,000	314

Table 2. Other Storage Tanks			
Location	Number	Capacity (gallons)	Material Stored
Tank Farm #3	390	30,000	No. 2 Fuel Oil
South of Parking Lot	None	550	Kerosene
South of Parking Lot	None	550	No. 2 Fuel Oil
South of Parking Lot	None	550	Gasoline
Fire Pump House	None	550	No. 2 Fuel Oil

b. Containers

Solid wastes are also received in containers, including, but not limited to, drums, totes, cartons, boxes, or pails. Drums and other containers received on site, depending on compatibility, may be stored in buildings 1A, 1B, 1C, 2A, 2B, 2C, 3, 3A, 3B, and 6.

2. Incineration Units

Three separate incinerator systems consist of two fixed-hearth, dual-chambered units rated at 16 million Btu/hr each (Units 2 and 3). Units 2 and 3 are mirror images of each other. The only difference between the units is Unit 2 has four baghouse modules, while Unit 3 has three baghouse modules. The third incinerator (Unit 4) is a rotary kiln rated at 50 million Btu/hr. Each unit includes its own feed, air pollution control, process instrumentation and controls, and continuous emission monitoring systems.

a. Unit 2 and Unit 3

Units 2 and 3 are fixed-hearth incinerators with a two-stage combustion process. See Figure 5 for the Units 2 and 3 process flow diagram. (Figures are at the end of this section.) Ignition of waste material takes place in the primary (lower) combustion chamber at temperatures in excess of 1,700 degrees F. A secondary (upper) combustion chamber serves as an "after-burner" for process gases. The secondary combustion chamber temperature is maintained at a minimum temperature of 1,800 degrees F. Wastes are not injected into the secondary combustion chamber. The thermocouple that monitors temperature in the lower combustion chamber is located on top of the chamber approximately 5 feet from the transition. The thermocouple that monitors temperature in the upper combustion chamber is located on top of the chamber above the transition.

Each incinerator has two burners. The burner in the lower chamber is a North American burner rated at 12 million Btu/hr. This burner only burns natural gas and is used to maintain minimum chamber temperatures. Liquid or gaseous (Unit 2 only) wastes are injected through separate feed nozzles. The burner in the upper chamber is a North American burner rated at 6 million Btu/hr used to supply additional heat to the chamber when necessary. This burner only burns natural gas.

The primary and secondary chambers of Units 2 and 3 each have an external diameter of 9 feet and are 17.5 feet long. The interior walls of both chambers are lined with approximately 10 inches of brick refractory and insulating backing. The internal operating diameter is 7 feet 2 inches. The cross-sectional area of the chambers is 40.3 square feet. Combustion air is controlled separately in the upper and lower chambers. See Table 3 for a summary of Units 2 and 3 design specifications.

Table 3. Units 2 and 3 Design Specifications

Model	TWI-2000, Series 2	
Manufacturer	Trade Waste Incineration	
Type	Fixed Hearth, Dual Chamber	
Feed	Solids, Organic Liquids, Aqueous Liquids, Sludges, Gases (Unit 2 only)	
Heat Release Rating	16 MMBtu/hr	
	Primary Chamber	Secondary Chamber
External Length	17.5 ft	17.5 ft

Table 3. Units 2 and 3 Design Specifications		
External Diameter	9 ft	9 ft
Internal Diameter	7 ft 2 in	7 ft 2 in
Cross-sectional Area	40.3 sq ft	40.3 sq ft
Burner Manf.	North American	North American
Burner Size	12 MMBtu/hr	6 MMBtu/hr
Burner Fuel	Natural Gas	Natural Gas
Liquid Waste Injectors	0-425 gph	
Prime Mover	Induced draft fan, 15,000 acfm @ 400°F, 22 inches water column	

After ignition of waste material under controlled conditions in the lower chamber, gases travel through a refractory-lined flue gas passage into the upper chamber, which acts as an afterburner. Turbulence is achieved by the tangential introduction of air and additional fuel in the upper chamber.

After passing through the upper chamber, the hot gas stream travels through 28 feet of refractory-lined stack sections before reaching the start of the gas scrubbing system. The combined volume of the upper and lower chambers, the flue gas passage, and the hot crossover section is approximately 1,567 cubic feet. The total retention time of combustion gases within the system is approximately 5 seconds. The incinerator is rated at 16 million Btu/hr and has a design unit heat release of approximately 10,000 Btu per cubic foot. Maximum gas volume when firing a heat release of 16 million Btu/hr is 15,000 acfm at 400 degrees F.

b. Unit 4

Bulk solid wastes are fed into the Unit 4 incinerator through either the ram feeder or a screw auger. Containerized wastes are fed into the kiln through the ram feeder or the auxiliary ram feeder. Unit 4 is supported by storage/blend tanks located in Tank Farm #3. Rates of wastes fed from the tank farm are controlled at the incinerator. The material is transferred through above-ground pipelines from the tank farm to the Unit 4 system.

Unit 4 incinerator has a two-stage combustion process consisting of a kiln and Secondary Combustion Chamber (SCC). See Figure 6 for the Unit 4 process flow diagram. (Figures are at the end of this section.) Ignition of waste material takes place in the primary kiln at temperatures in excess of 1,500 degrees F. The SCC temperature is maintained above 1,880 degrees F. High Btu liquid wastes can be injected directly into the SCC. The pyrometer that monitors temperature in the rotary kiln is located top-center in the transition section between the rotary kiln and the SCC, approximately 2 feet downstream from the exit of the kiln. The thermocouple that monitors temperature in the SCC is located on the west side of the chamber near the SCC exit duct.

The rotary kiln is fabricated of carbon steel. It has approximate dimensions of 8 feet 8 inches outside diameter by 35 feet long. It is supported on a one-degree slope by two steel tires or riding rings. Each riding ring rides on two pairs of steel trunnions and has an approximate outside diameter of 9 feet 5 inches. The thickness and face width of the trunnions are approximately 6 inches and 9 inches, respectively. The kiln is lined with approximately 7.5 inches of dense, abrasion-resistant, high-alumina firebrick refractory. With this refractory system, the kiln has an inside diameter of approximately 7 feet, a length of approximately 35 feet, an integral cross-section area of approximately 38 square feet, and an internal volume of approximately 1,346 cubic feet.

All kiln feeds enter through the upper kiln face plate located on the feed end of the kiln. The plate contains a primary burner, three liquid feed nozzles (for direct injection of liquid waste, aqueous waste, and high Btu liquid waste), an air turbulence nozzle, a ram feeder, and a surge vent.

The primary burner is equivalent to a North American 'Fuel Directed' burner of 25 MMBtu/hr and burns natural gas. The burner system is supplied with approximately 4,000 acfm combustion air at a static pressure of 20 inches water column. The pilot for the primary burner burns natural gas. The fuel system for the kiln and SCC is controlled by a Factory Mutual approved burner management system complete with interlocks and safety valves.

The SCC is a vertical, cylindrical chamber having approximate dimensions of 10 feet 6 inches outside diameter by 71 feet high. It is fabricated of carbon steel and lined with an inner course (hot face) of approximately 6 inches of high-alumina refractory and an outer course of approximately 2 inches of insulating refractory. With this installed refractory, the SCC has an inside diameter of approximately 9 feet. The effective length (gas retention length) of the chamber is approximately 48 feet 6 inches. Consequently, the SCC has a cross-section area of 64 square feet and an effective volume of approximately 3,084 cubic feet. At maximum combustion gas flows, the combustion gas residence time is greater than 2 seconds. High Btu liquids can be fed directly into the SCC.

Combustion gases from the kiln enter the bottom of the SCC through a refractory-lined side duct and exit from the top of the SCC through a refractory-lined duct to the tempering chamber. The floor of the chamber is sloped to facilitate the removal of ash and solids through a slag tap. The SCC is equipped with one burner mounted on the sidewall of the chamber near the bottom. The burner is a Trane Thermal Model or equivalent, with a design heat release of approximately 30 million Btu/hr. This burner is supplied with natural gas and combustion air. As with the kiln burner, the SCC burner is supplied with atomizing air and is equipped with a burner management system. This system controls the ignition and initiates an automatic shutoff when there is a loss of flame, combustion air supply, fuel pressure, atomizing air pressure, pilot burner, or induced-draft fan.

The SCC burner is a high-intensity, vortex type unit with a spin vane assembly, located within the windbox to impart an intense rotary motion to the combustion air. This rotary motion and the burner design provide complete mixing of air and fuel, and recirculation of the gases within the combustion chamber promotes rapid combustion and high heat intensity. See Table 4 for a summary of Unit 4 design specifications.

Table 4. Unit 4 Design Specifications		
Model	PY*ROX	
Manufacturer	International Waste Energy Systems	
Type	Transportable Rotary Kiln	
Feed	Solids, Organic Liquids, Aqueous Liquids, Sludges	
Heat Rating	50 MMBtu/hr	
	Kiln	Secondary Chamber
External Length	35 ft	71 ft
External Diameter	8 ft	10.5 ft
Internal Diameter	7 ft	9 ft
Burner Mfg.	North American	T-Thermal
Burner Size	25 MMBtu/hr	25 MMBtu/hr
Burner Fuel	Natural Gas	Natural Gas
Liquid Waste Injectors	0-750 gph	
Prime Mover	Induced draft fan, 53,000 acfm	

c. Air Pollution Control Devices – Unit 2 and Unit 3

The air pollution control system consists of a spray dryer absorber and fabric filter baghouse. The air pollution control system neutralizes acidic compounds and removes particulate from the exhaust gas. Two subsystems, the spray dryer absorber and the fabric filter, carry out the chemical neutralization and particulate removal functions, respectively. A third subsystem, the lime system, is used to prepare and provide lime slurry to the spray dryer absorber for use in the chemical neutralization process. The induced draft fan and stack provide the mechanical energy required to transport the flue gas through the interconnecting ductwork to its eventual discharge point to atmosphere.

Lime System

The lime system prepares lime slurry for use in the chemical neutralization process in sufficient supply and concentration to maintain continuous flue gas treatment in the spray dryer absorber. The system has been designed for batch mixing to provide this service. Hydrated lime is stored in a storage bin above the lime preparation area. The storage bin is sized to hold enough hydrated lime to maintain several days of system operation at the maximum combustion rate of the incinerator. Lime is discharged through the conical storage bin bottom. The flow

of the material from the bin is aided by a vibrating "live bottom" or bin activator. A variable speed rotary feeder is used to meter the hydrated lime in the proportions required for batch mixing lime slurry. The lime is mixed with water in a tank beneath the lime storage bin. The rotary feeder speed and the rate that water is added to the lime slurry tank are variable so that the desired 20% lime solids concentration can be achieved in the tank. The variable feed adjustments allow water and lime to be added to the lime slurry tank at a rate that will allow a batch mode of mixing. An agitator is provided in the slurry tank to mix the water and lime and to maintain the suspension of lime solids. The mixed lime slurry is pumped at a continuous rate of flow through a recirculation loop to the atomizer.

Spray Dryer Absorber

Slurry flow to the spray dryer absorber is metered by a flow control valve to obtain the proper feed concentration to the spray dryer absorber atomizer. Automatic (or manual) adjustment to the flow is made as a function of the output from a hydrochloric acid (HCl) analyzer in the gas duct downstream of the fabric filter. The amount of slurry metered is proportional to the amount of HCl monitored. The slurry passes through a stationary swirl-type liquid distributor into the atomizer wheel where induced centrifugal force from the rapidly spinning wheel discharges the slurry through the wheel nozzles at high velocity. The design of the atomizer wheel, its rate of spin, and the discharge velocity of the slurry, create a cloud of finely divided droplets around the periphery of the atomizer wheel. A feedback signal from the atomizer power transmitter provides verification that water flow to the atomizer increases or decreases in proportion to the spray dryer absorber outlet temperature.

Flue gas enters from the bottom of the spray dryer absorber through a vertical, centrally located disperser. The disperser directs the flue gas through the zone filled by the atomized slurry cloud where the flue gas and slurry mix, and most of the absorption occur. The spray dryer absorber features a two-point product discharge. A portion of the dried spent chemicals and ash settle to the bottom of the chamber. This material is discharged at the base of the powder discharge cone. It then passes through a lump breaker that reduces large agglomerations of material to a manageable size. Finally, it is discharged through a rotary valve to the conveying system. The remainder of the spent chemicals is carried from the module entrained in the flue gas.

Fabric Filter

Gas exhausted from the spray dryer absorber is distributed by manifold ducts to four fabric filter modules at Unit 2 and three fabric filter modules at Unit 3. Within each filter module, the gas is passed through Teflon-coated fiberglass cloth bags. The gas passes from the outside to the inside of the filter bags. Particulate, entrained in the gas stream, is mechanically deposited on the outside of the filter bags as the gas passes through the cloth.

The fabric filter cleaning mechanism utilizes jets of air to clean the filter bags. Periodically, the cleaning sequence will be initiated. The sequence is either started at the end of a timed cycle or when the differential pressure across the filter reaches a predetermined setpoint of approximately 7.0" w.c. The controller then sequences to each row of filter bags in each module, releasing a burst of air opposite to the direction of gas flow. The quickly released burst of air dislodges dust cake on the exterior of each bag as it travels from the top to the bottom of the bag. Released from the bag, the dust cake falls by gravity into the hopper at the bottom of the module. The dust cleaned from the filter bags is removed at the base of the hopper through a rotary valve for discharge to the conveying system. Treated by the spray dryer absorber and filtered by the fabric filter, the cleaned flue gas exits the fabric filter modules to an outlet manifold for exhaust.

Induced Draft Fan and Stack

The induced draft fan and stack are located downstream of the fabric filter. Combustion gases are drawn through the system by a 75 hp induced draft fan, rated at 15,000 acfm at 400 degres F saturated, and 22" water column pressure. The induced draft fan provides the mechanism for transporting the incinerator flue gas through the spray dryer absorber, fabric filter, and all interconnecting ducts. The velocity of the gas within the ducting and treatment devices is regulated by the damper associated with the fan. Treated gases are exhausted from the induced draft fan to the atmosphere through a 90-foot high stack. The stack diameter for Units 2 and 3 are both 39 inches inside diameter. Each stack is equipped with instrument sampling ports and a sampling platform for emissions testing.

d. Air Pollution Control Devices – Unit 4

a. *Tempering Chamber*

The tempering chamber is a vertical, cylindrical unit designed to cool the combustion gases using a series of internal dual-fluid (water and air) spray nozzles. The combustion gases enter the top of the chamber, flow downward through the spray pattern and exit from the bottom of the chamber. The spray pattern is designed to eliminate direct contact of water with refractory, and the chamber is designed to maintain a dry bottom under all operating conditions. That is, the injection rate of spray water is controlled, so that it is completely vaporized and carried out of the chamber in the combustion gases. The tempering chamber is approximately 49 feet high with an 11-foot inside diameter, is fabricated of ¼ inch nominal plate thickness carbon steel (ASTM A36), and is lined with refractory. The spray nozzles and extensions are fabricated of 304 SS material.

The tempering chamber is sized so that a combustion gas retention time of greater than one second will be maintained at all gas flows. Because some molten

particulate materials in the combustion gases are cooled in this process unit to below their fusion point, some solids are generated and collected in the chamber. Therefore, the chamber has a cone bottom and double valves to facilitate the removal of solids. These solids are discharged onto a conveyor system that transports them to a hopper.

Spray Dryer Absorber

Unit 4 is equipped with two Spray Dryer Absorbers (SDA) located immediately downstream of the Tempering Chamber. Each SDA unit is fabricated of 3/8 inch carbon steel. The SDAs operate in parallel to:

- Further cool the combustion gases from 600-800 degrees F to 300-500 degrees F;
- Neutralize and remove HCl and other acids from the combustion gases; and,
- Remove a portion of the particulate (flyash) from these gases.

The combined units are sized to remove more than 820 lbs./hr. of chlorine from the combustion gases. Each SDA is approximately 72' high by 10'7" in diameter. Each unit includes a head section, and a 60° conical hopper. Each SDA chamber has one access door in the upper section. Each hopper has one access door, a flanged clean-out port, and a drain connection. The SDA head section consists of a flanged inlet connection and a hot gas inlet plenum. The dual-fluid atomizing nozzles include stainless steel housings and stellited inserts. The nozzles are assembled to permit field removal from the piping. The two lime slurry piping headers have automatic isolation valves.

Combustion gases enter the top of each of these units, flow downward through a central duct, and are dispersed symmetrically from this duct into the absorber chamber at a velocity and direction that assures optimal contact with the cloud of atomized lime slurry droplets introduced into the chamber by dual-fluid (lime slurry and air) nozzles. The gases then flow downward through each absorber chamber and exit through a bottom side duct. As the gases contact and pass through the cloud of atomized lime slurry, the water in the slurry evaporates, cooling the gases. Simultaneously, the lime in the slurry reacts with the hydrogen chloride in the gases to produce calcium salts. Some of the resulting dry material, consisting of calcium salts, flyash, and excess lime, falls to the conical bottom of each unit. The dry material from each unit is discharged to a conveyor system, which transports it to a dump trailer or equivalent type system.

Fabric Filter

The fabric filter consists of two modules connected in parallel. Each module is divided into three compartments connected in parallel, which contain multiple fabric filter bags through which the combustion gases pass to remove particulates.

The modules provide an operating air-to-cloth ratio of approximately 4:1. The bags are periodically cleaned via a pulse air jet, which causes the particulate matter to fall to the bottom hoppers of each module. From there it is discharged to a conveyor system which transports it to a dump trailer or equivalent type system.

Each fabric filter consists of a trailer-mounted unit subdivided into three compartments. Each compartment has a clean air plenum and housing section to contain approximately 308 bags. Each bag is approximately 5 inches in diameter by 5 feet long. The baghouses are fabricated from 3/16-inch mild steel plate, of welded construction, gas tight, and stiffened to withstand the maximum operating negative pressure. Each compartment has a tube sheet that supports the bags and provides for top bag/cage removal. Access to the clean air plenum is via a bolted access door. Each trailer-mounted unit contains the compressed air headers, gas inlet and outlet manifolds, and the conveyor.

The fabric filter is equipped with a high-efficiency, pulse-jet cleaning system. The cleaning system uses low pressure, approximately 40-80 psig, and compressed dry air to dislodge the accumulated particulates from the bags. A solid state programmable controller accomplishes the control of the air flow. The filter units are designed to minimize filter bag wear by cleaning on demand, yet maintaining the desired pressure drop across the fabric filter. Alternately, at the option of the operator, the units can be cleaned on a timed cycle, in a manual mode or on the basis of high pressure drop. The pressure drop set point is adjustable, but normally is less than 8" w.c. The bags are designed for 25" w.c. vacuum, which is greater than the maximum negative pressure the induced draft fan can develop. The design allows the bags to be cleaned when the fabric filter is in operation. For a six-compartment unit, one-sixth of the total bags, or one-third of a module, can be isolated. The remaining five-sixths of the fabric filter capacity is more than adequate to accommodate the process requirements. The filter medium is a 22 oz/sq yd., woven fiberglass material, with an acid-resistant finish. Bags include snap rings for easy and dust-tight installation. The bags are held in place by bag cages constructed of galvanized steel wire.

Carbon Injection and Lime Recirculation System

The carbon injection system air-injects activated carbon into the plenum immediately upstream of the baghouses and allows for a more efficient means of controlling dioxin/furan and mercury emissions. To compliment this system and to incorporate waste minimization, the facility is permitted to pull a slip stream of the partially reacted lime from the exit of the baghouse solids discharge system and recirculate/recycle this back to the Spray Dryer Absorbers (SDAs) to further aid in HCl removal and dioxin/furan removal. The carbon injection system is controlled by a PLC, which will control the input of activated carbon to the baghouse inlet plenum to allow from 2 to 20 pounds per hour of powdered

activated carbon to be air injected into this plenum and allow for direct contact with the stack gases exiting the SDAs.

The amount of carbon is dosed in a dust-free manner into a low-pressure air stream via pneumatic eduction. The eductor uses a blower for the motive air. The carbon/air stream travels through piping to the injection nozzle into the ductwork. The carbon contacts the gas stream exiting the SDAs and allows for the adsorption of any dioxin/furans and mercury that might be present in this stream. Adsorption continues as the stack gases proceed through the baghouses. The clean stack gas exits the final stack via the induced draft fan, and the captured solids are discharged from the baghouses via the screw conveying system into an enclosed dump trailer for disposal at a Subtitle C landfill.

In addition to this system, the facility is permitted for a lime recirculation system that directs a portion of the spent lime and carbon stream back into the SDAs. This recirculation system serves two purposes. The main objective is to further aid in the neutralization of HCl and the adsorption of dioxin/furan and mercury in the SDAs. The second objective is to minimize the hazardous waste that will be generated requiring disposal at a Subtitle C landfill by recycling a portion of the partially reacted lime.

The spent lime and carbon stream exiting the baghouses will contain up to 50% unreacted lime and a portion of unadsorbed activated carbon. A slip stream of this residual will be taken out of each baghouse system and directed back to each SDA. Since the SDAs and baghouses are in parallel, the North baghouse residual stream will be directed to the North SDA and the South baghouse residual stream will be directed to the South SDA. The residual will be blown into the SDAs via an injection nozzle that will be located approximately 20 feet down from the gas inlet duct of each vessel. This stream will add more neutralizing and adsorbing surface area and further aid in the removal efficiency of this vessel. The unreacted lime portion of this stream will aid in neutralization of HCl, and the increased surface area of the total residual stream will aid in the adsorption of any dioxin/furan compounds present in the off-gases. The basis is providing more surface area in the gas cleaning train to which the dioxin/furan compounds can adhere, thus reducing the stack emissions of these compounds. This closed-looped system will provide a constant cycle of adding and removing spent lime via the recirculation system, so, theoretically, the composition of the recirculation feed stock should remain fairly constant.

Induced Draft Fan and Stack

The induced draft fan draws combustion gases through the system and discharges them through the stack. It has a carbon steel centrifugal design sized to develop a pressure of approximately 25" wc at a maximum gas flow of approximately 53,000 acfm at 400 degrees F. The induced draft fan was sized to maintain a

negative pressure of ½" w.c. in the kiln and greater negative pressures throughout the remainder of the system, thereby, preventing fugitive emissions.

The induced draft fan includes an inlet volume control damper to be used to control the pressure of the kiln. The stack diameter for Unit 4 is 48 inches inside diameter and is 100 feet high. Unit 4's stack is equipped with instrument sampling ports and a sampling platform for emissions testing. Figure 5-2 provides details on the design and sample port locations and configurations for the stack.

3. Other Treatment Units

a. Material Processing Areas

Material processing involves repackaging of containerized solid wastes into smaller, more manageable containers for incineration. Some solid wastes may be received containing free liquids that may be aqueous or organic. During material processing, free liquids are fixed with an inert absorbent to facilitate repackaging. Material processing occurs at MP-1, MP-2, and the Lab Pack Repack Facility in Building 2B. See Figure 7 for the Material Processing flow diagram. (Figures are at the end of this section.)

Table 5. Material Processing Areas

Activity	Location
Material Processing 1	MP-1
Material Processing 2	MP-2
Lab Pack Repack	Building 2B

These operations emit fugitive emissions in an enclosed building. Volatile organic material (VOM) is emitted to the atmosphere through building/area exhaust fans.

b. Bulk Feed Building

Bulk solid wastes are stored in four pits in the Bulk Feed Building. Solids stored in these pits are incinerated in Unit 4. A carbon adsorption system controls volatile emissions. The building is equipped with a cyclone and two baghouses to control particulate emissions. Bulk solid wastes are moved from the pits to Unit 4 by a clamshell through an enclosed gallery. See Figure 8 for the Bulk Feed Building process flow diagram. (Figures are at the end of this section.)

c. Glove Box Building

Wastes may also be processed in the Glove Box Building, which is located near Unit 3 and contains two separate glove box units. Materials received in drums, lab packs, cylinders, or small containers that are reactive or odiferous are opened in order to be repacked and re-closed inside one of the two glove boxes. Only one glove box is in

use at a time, depending on the size of the container to be processed. A flexible connection duct is connected to the glove box in operation. This duct vents all emissions from the material in the glove box directly to incinerator Unit 3. The draft of the system induced draft fan provides negative pressure of evacuation of the glove box in use. When handling open containers in the glove box, all equipment is used by the operator from outside the glove box by either automation or gloves attached to the glove box.

d. Drum Crusher

Drums received that are unsuitable for reuse are crushed at the Drum Crusher after being emptied. These empty drums may contain residual organic material. Crushed drums are transported off-site for disposal. Fugitive emissions of VOM are emitted to the atmosphere. See Figure 9 for the Drum Crusher process flow diagram. (Figures are at the end of this section.)

4. Ancillary Processes

There is one 10.6 MMBtu/hr natural gas boiler located north of Tank Farm #1. Another 12.55 MMBtu/hr natural gas boiler is proposed. These boilers are used to generate heat and steam for on-site uses. See Figure 10 for the boiler process flow diagram. (Figures are at the end of this section.) There is also a portable 2.5 MMBtu/hr boiler and two emergency generators, each rated at less than 112 kW. There are no emission control devices associated with these units.

C. General Air Emission Information

Emission units at the Veolia Sauget facility emit CO, NO_X, SO_X, particulate matter, semi-volatile metals, low-volatile metals, lead, HAPs, and VOM. Control devices and standard work practices are used to control emissions to the atmosphere.

The Veolia Sauget facility is located in a nonattainment area for the 8-hour ozone and $PM_{2.5}$ national ambient air quality standards. The facility is a major source of HAPs, emitting greater than 10 tons per year of HCl. The facility's potential to emit is less than 100 tons per year for VOM and NO_X, and less than 250 tons per year for all other regulated pollutants.

IV. REGULATORY APPLICABILITY AND PERMIT CONDITIONS

A. Facility-wide Requirements and Permit Shield Request [40 CFR 71.6(f)]

The following requirements apply to the plant operations as a whole or to certain categories of equipment throughout the plant. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B. Veolia requests a permit shield such that compliance with the conditions of the issued Part 71 permit shall be deemed in compliance with the applicable and non-applicable requirements contained in the Title V renewal application and addendum.

1. Fugitive Particulate Matter [35 IAC 212.301]

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

2. Open Burning Prohibitions [35 IAC 237.102]

No person shall cause or allow open burning, except as provided by permit received in accordance with Section 237.201 of the regulations. In addition, no person shall cause or allow the burning of any refuse in any chamber or apparatus, unless such chamber or apparatus is designed for the purpose of disposing of the class of refuse being burned. Landscape waste may be exempted under certain conditions listed in 35 IAC 237.120 (c).

3. Organic Emissions from Pumps and Compressors [35 IAC 219.142]

No person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of volatile organic liquid (VOL) with vapor pressure of greater than 2.5 psia at 70 degrees F into the atmosphere from any pump or compressor in any 15 minute period at standard conditions.

4. NESHAP from Off-site Waste and Recovery Operations: Equipment Leaks [40 CFR 63.691(b)(1); 40 CFR 61 Subpart V]

The facility shall comply with the leak detection and repair standards contained in 40 CFR 61.242-1 through 40 CFR 61.242-11 for pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.

5. Prevention of Significant Deterioration and Nonattainment New Source Review

The facility is located in St. Clair County, a marginal non-attainment area for the 8-hr ozone and the $PM_{-2.5}$ national ambient air quality standards (NAAQS). The area is designated attainment or unclassifiable for all other regulated pollutants. The facility is a major source of hazardous air pollutants with potential emissions as follows:

POLLUTANT	PTE (tons/yr)
PM_{10}	12.55
SO_2	66.19
NO_X	74.11
VOM (OZONE)	15.63
CO	30.85
LEAD	0.0968
PM	13.93
HAPS	21.41
ARSENIC	< 0.10
BENZENE	< 0.40
BERYLLIUM	< 0.05
LEAD	< 0.10
MERCURY	0.055

The current facility's PTE is a summation of the potential to emit of each emission unit.

B. Incinerators: Unit 2, Unit 3, and Unit 4 Emission Standard Requirements

The regulations applicable to the incinerators are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Visible Emissions

a. Visible Emissions Limitations [35 IAC 212.123(a)]

The emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission source shall not be caused or allowed, except as allowed by 35 IAC 212.123(b) and 212.124.

b. Fugitive Particulate Matter [35 IAC 212.301 and 212.314]

The facility shall not cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour.) except as described in 35 IAC 212.314.

2. Sulfur Dioxide Emissions

a. Sulfur Dioxide Annual Emission Limitation

Total sulfur dioxide emissions from the facility shall not exceed 7.7 tons per year for units 2 and 3 and 50.76 tons per year for Unit 4. [Construction permits #87100024 and #88010001]

3. Carbon Monoxide Emissions

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1219(a)(5)]

Emissions of carbon monoxide shall be less than or equal to 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7% oxygen. If the facility elects to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, it must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7% oxygen, and reported as propane.

b. Carbon Monoxide Limitations for Incinerators [35 IAC 216.141]

Carbon monoxide emissions from each incinerator shall not exceed 500 parts per million (ppm) corrected to 50% excess air. [Construction permits #83120053, #87100024 and #88010001]

c. Carbon Monoxide Annual Emission Limitation

Total carbon monoxide emissions from the facility shall not exceed 6.6 tons per year for Units 2 and 3 and 13.86 tons per year for Unit 4. [Construction permits #87100024 and #88010001]

4. Particulate Matter Emissions

a. Particulate Matter Limitations for Incinerators [35 IAC 212.181(b)]

The emission of particulate matter into the atmosphere from any incinerator burning more than 0.907 megagram per hour (Mg/hr; 2,000 pound per hour (lb/hr)) but less than 27.2 Mg/hr (60,000 lb/hr) of refuse shall be limited to 183 milligrams per standard cubic meter (mg/scm; 0.08 grain per standard cubic foot (gr/scf)) of effluent gases corrected to 12% carbon dioxide. [Construction permit #83120053]

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1219(a)(7)]

Emissions of particulate matter from the facility shall be limited to 0.013 grain per standard cubic foot (gr/scf), corrected to 7% oxygen.

c. Particulate Matter Annual Emission Limitation

Total suspended particulate matter emissions from the facility shall not exceed 15.0 tons per year for Units 2 and 3 and 16.92 tons per year for Unit 4. [Construction permits #87100024 and #88010001]

5. Volatile Organic Material Emissions

a. Use of Organic Material [35 IAC 219.301 and 219.302]

The facility shall not cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except that, if no odor nuisance exists, this limitation shall apply only to photochemically reactive material. Alternatively, the facility may use a control device to reduce such emissions either to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85% of the hydrocarbons to carbon dioxide and water.

b. Volatile Organic Material Annual Emission Limitation

Volatile organic material emissions from the facility shall not exceed 0.9 tons per year for Units 2 and 3 and 3.1 tons per year for Unit 4. [Construction permits #87100024 and #88010001]

6. Nitrogen Oxide Emissions

a. Nitrogen Oxide Annual Emission Limitation

Total nitrogen oxide emissions from the facility shall not exceed 4.0 tons per year for Units 2 and 3 and 61.6 tons per year for Unit 4. [Construction permits #87100024 and #88010001]

7. Hazardous Air Pollutant Emissions

a. NESHAP for Hazardous Waste Combustors - Dioxin and Furan Emission Limitations [40 CFR 63.1219(a)(1)]

The emission rate of dioxin and furans from the facility shall not exceed 0.20 ng TEQ/dscm, corrected to 7% oxygen.

b. NESHAP for Hazardous Waste Combustors - Mercury Emission Limitations [40 CFR 63.1219(a)(2)]

The emission rate of mercury from the facility shall not exceed 130 µg/dscm, corrected to 7% oxygen.

c. NESHAP for Hazardous Waste Combustors - Semi-volatile Metal Emission Limitations [40 CFR 63.1219(a)(3)]

The emission rate of cadmium and lead from the facility shall not exceed 230 µg/dscm, combined emissions, corrected to 7% oxygen.

d. NESHAP for Hazardous Waste Combustors - Low Volatile Metal Emission Limitations [40 CFR 63.1219(a)(4)]

The emission rate of arsenic, beryllium, and chromium from the facility shall not exceed 92 µg/dscm, combined emissions, corrected to 7% oxygen.

e. NESHAP for Benzene Waste Operations [40 CFR 61.348(a)(1)(iii)]

The combustion units shall be designed, installed, operated, and maintained such that benzene in the waste stream is destroyed by incinerating the waste. The combustion units must achieve a destruction efficiency of 99% or greater for benzene.

f. NESHAP from Off-site Waste and Recovery Operations [40 CFR 63.689(c)(2)]

All joints or seams between the pipe sections of any transfer system that consists of continuous hardpiping shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

8. Hydrogen Chloride Emissions

a. NESHAP for Hazardous Waste Combustors - Hydrogen Chloride Emission Limitations [40 CFR 63.1219(a)(6)]

The hydrogen chloride and chlorine gas (total chlorine) emissions from the facility shall not exceed 32 ppm by volume, combined emissions, expressed as a chloride (Cl^-) equivalent, dry basis and corrected to 7% oxygen.

b. Hydrogen Chloride Emission Limitation

Hydrogen chloride emissions from incinerators 2 and 3 in excess of 4.0 pounds per hour or the control devices shall demonstrate a minimum HCl removal efficiency of 99%. [Construction permits 83120053 and 87100024]

9. Destruction and Removal Efficiency (DRE) Requirement

a. NESHAP for Hazardous Waste Combustors – DRE Standard [40 CFR 63.1219(c)(1)]

Each HWC unit must achieve a 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of 40 CFR 63.1219. The DRE for each POHC will be calculated using the following equation:

$$DRE = [1 - (W_{out} / W_{in})] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and
W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

The emission limits in this rule are presented with two significant figures. The intermediate calculations must be performed using at least three significant figures; however, the resultant emission levels may be rounded to two significant figures to document compliance.

b. NESHAP for Hazardous Waste Combustors – DRE Standard [40 CFR 63.1219(c)(2)]

If the facility burns the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), it must achieve a DRE of 99.9999% for each POHC that it designates under 40 CFR 63.1219(c)(3). The facility must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo- *p* -dioxins and dibenzofurans. The equation in 40 CFR 63.1219(c)(1) must be used to calculate DRE for each POHC. In addition, the facility must notify the Administrator of its intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

c. NESHAP for Hazardous Waste Combustors – DRE Standard [40 CFR 63.1219(c)(3)]

- Each POHC in the waste feed that the facility specifies under section 63.1219(c)(3)(ii) must be treated to the extent required by sections 63.1219(c)(1) and (c)(2).
- One or more POHCs that are representative of the most difficult to destroy organic compounds in the facility's hazardous waste feedstream must be specified. This specification must be based on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their

concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

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C. Incinerators: Unit 2, Unit 3, and Unit 4 Work Practice and Operational Requirements

1. Operating Parameter Limits

a. NESHAP for Hazardous Waste Combustors[40 CFR 63.1206(a), (b) and 63.1209)(j) through (p)]

Units 2, 3, and 4 must be operated in accordance with the operating parameter limits (OPLs) specified in the most recent Notification of Compliance (NOC). The operating parameters are listed below. A copy of the most recent NOC with the current limits is provided in Appendix E.

Operating Parameters	Regulatory Citation	Emission Standard
Minimum primary combustion chamber temperature	63.1209(j)(1),(k)(2)	DRE, Dioxin/Furan
Minimum secondary combustion chamber temperature	63.1209(j)(1),(k)(2)	DRE, Dioxin/Furan
Maximum flue gas flowrate or production rate	63.1209(j)(2)), (k)(3), (m)(2), (n)(5), (o)(2)	DRE, Dioxin/Furan, PM, SVM, LVM, HCL/Cl_2
Maximum hazardous waste pumpable feedrate for each feed location	(63.1209(j)(3), (k)(4))	DRE, Dioxin/Furan
Maximum hazardous waste total feedrate for each feed location	(63.1209(j)(3), (k)(4))	DRE, Dioxin/Furan
Operation of waste firing system for each location where waste is fed to the incinerator	(63.1209(j)(4)	DRE
Maximum temperature of the gas at the inlet to dry control device	(63.1209(k)(1)), (n)(1))	Dioxin/Furan, SVM, LVM
Minimum carbon injection rate	(63.1209(k)(6)(i))	Dioxin/Furan, Mercury
Minimum carrier fluid (gas or liquid) flowrate or pressure drop	(63.1209(k)(6)(ii))	Dioxin/Furan, Mercury
The brand (i.e., manufacturer) and type of carbon used during the comprehensive performance test	(63.1209(k)(6)(iii))	Dioxin/Furan, Mercury
Maximum total feedrate of mercury	(63.1209(l)(1)(i))	Mercury
Maximum ash feedrate	(63.1209(m)(3))	PM
Maximum total feedrate of semivolatile metals	(63.1209(n)(2)(ii))	SVM
Maximum total feedrate of low volatile metals	(63.1209(n)(2)(ii))	LVM
Feedrate limits for low volatile metals in pumpable feedstreams	(63.1209(n)(2)(vii))	LVM

Operating Parameters	Regulatory Citation	Emission Standard
Feedrate of total chlorine and chloride in all feedstreams	(63.1209(n)(4),(o)(1))	SVM, LVM, HCL/Cl_2
Minimum sorbent feedrate	(63.1209 (o)(4)(i))	HCL/Cl_2
Minimum carrier fluid flowrate or nozzle pressure drop for the spray dry adsorber	(63.1209(o)(4)(ii))	HCL/Cl_2
The brand (i.e., manufacturer) and type of sorbent used during the comprehensive performance test	(63.1209(o)(4)(iii)(A))	HCL/Cl_2
Maximum combustion chamber pressure	(63.1209(p)	Combustion System Leaks

The emission standards and operating requirements 40 CFR 63 Subpart EEE apply at all times except:

- During periods of startup, shutdown, and malfunction;
- When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and the facility has documented in the operating record compliance with all otherwise applicable requirements and standards promulgated under authority of sections 112 (e.g., 40 CFR. part 63, subparts LLL, DDDDD, and NNNNN) or 129 of the Clean Air Act in lieu of the emission standards under 40 CFR 63.1203, 63.1204, 63.1205, 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221; the monitoring and compliance standards of 40 CFR 63.1206 through 63.1209, except the modes of operation requirements of 40 CFR 63.1209(q); and the notification, reporting, and recordkeeping requirements of 40 CFR 63.1210 through 63.1212;
- During performance tests under approved test plans according to 40 CFR 63.1207(e), (f), and (g); and
- If plans to change (as defined in 40 CFR 63.1206(b)(5)(iii)) the design, operation, or maintenance practices of the units in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS are developed, then hazardous waste must not be burned for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at 40 CFR 63.1207(h)(2)(i) and (ii). However, the facility may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. Operating requirements must be specified, including limits on operating parameters that have been determined to ensure compliance with the emission standards of this permit based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim

operating requirements. A notification must be submitted to the Administrator at least 60 days prior to any change described above.

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(1) and 63.1211(c)]

The facility operating record must include a Documentation of Compliance (DOC) that identifies the applicable emission standards under this subpart and the limits on the operating parameters under 40 CFR 63.1209 that will ensure compliance with those emission standards. The DOC must be updated with any changes to the OPLs or affected sources and becomes the compliance document until the NOC is submitted. Veolia will operate in accordance with the DOC and/or the most current NOC. (Appendix E.)

c. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(2) and 63.6(e)(3)]

- The facility must develop a written startup, shutdown, and malfunction plan (SSMP) that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standards. The SSMP is provided in Appendix G of this document.
- The facility must maintain a current SSMP and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the SSMP is subsequently revised as provided in 40 CFR 63.6(e)(3)(viii), the facility must maintain each previous (i.e., superseded) version of the SSMP, and must make each previous version available for inspection and copying for a period of 5 years after revision of the plan. If at any time after adoption of an SSMP an affected source ceases operation or is otherwise no longer subject to the provisions of this part, the facility must retain a copy of the most recent plan for 5 years. All retained plans must be available for inspection and copying upon request.
- The contents of the SSMP must address the requirements in 40 CFR 63.1206(c)(2) and 40 CFR 63.6(e)(3).
- The SSMP and revisions must be submitted to the Administrator for review and approval.

d. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(3) and 35 IAC 201.149]

The facility must operate the hazardous waste combustors with a functioning automatic waste fuel cutoff (AWFCO) system that immediately and automatically cuts off the hazardous waste feed when:

- Any of the following are exceeded: Operating parameter limits specified under 40 CFR 63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;
- The span value of any CMS detector, except a CEMS, is met or exceeded;
- Upon malfunction of a CMS monitoring an OPL specified under 40 CFR 63.1209 or an emission level; or
- Any component of the AWFCO system fails.

The AWFCO system must address the requirements in 40 CFR 63.1206(c)(3) and construction permits #83120053, #87100024 and #88010001.

The continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment shall not be allowed if such operation would cause a violation of the standards or limitations set forth in IL Title 35, Subchapter c: Emission Standards and Limitations for Stationary Sources. Violation of the standards or limitations set forth in IL Title 35, Subchapter c: Emission Standards and Limitations for Stationary Sources shall not be allowed during startup. The AWFCO plan is provided in Appendix H of this document.

e. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(4)]

- The facility must develop and maintain an Emergency Safety Vent (ESV) operating plan, comply with the operating plan, and keep the plan in the operating record.
- The ESV operating plan contents must address the requirements in 40 CFR 63.1206(c)(4).

The ESV operating plan is provided in Appendix I of this document.

f. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(5)]

Combustion system leaks of hazardous air pollutants must be controlled by maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor.

g. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(6)]

Training programs must be established for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified below.

A certified control room operator must be on duty at the site at all times the source is in operation. Hazardous waste incinerator control room operators must:

- Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of section 2.1(C)(10)(d);or
- Be trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards:QHO-1-1994, QHO-1a-1996, or QHO-1-2004 (Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If the Permittee elects to use the ASME program:

  (A) Control room operators must, prior to the compliance date, achieve provisional certification and must submit an application to ASME and be scheduled for the full certification exam. Within 1 year of the compliance date, control room operators must achieve full certification.

  (B) New operators and operators of new sources must, before assuming their duties, achieve provisional certification, submit an application to ASME, and be scheduled for the full certification exam. Within 1 year of assuming their duties, these operators must achieve full certification; or.
- Be trained and certified under a State program.
- Site-specific, source-developed and implemented training programs for control room operators must include the elements described 40 CFR 63.1206(c)(6)(v) and (vi).
- Documentation of the operator training and certification program will be maintained in the operating record of the facility.

h. NESHAP for Hazardous Waste Combustors [40 CFR 63.1206(c)(7) and 63.6((e)]

The facility must prepare and at all times operate according to an operation and maintenance plan (O&M Plan) that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

The contents of the O&M Plan must address the requirements in 40 CFR 63.1206(c)(7) and 40 CFR 63.6(e). The O&M Plan is maintained in the operating record onsite.

2. Work Practice Requirements

The facility shall not burn hospital medical infectious waste, municipal waste, or beryllium NESHAP containing waste.

D. Incinerators: Unit 2, Unit 3, and Unit 4 Monitoring Requirements

1. Continuous Emissions Monitoring Systems (CEMS) and Continuous Opacity Monitoring Systems (COMS) [40 CFR 63.1209(a)]

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(a)(1)(i)]

The facility must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide or hydrocarbon standard. An oxygen CEMS must be used to continuously correct the carbon monoxide to 7 % oxygen. If the facility elects to comply with the hydrocarbon and carbon monoxide emission standards with a CO CEMS, then the facility must demonstrate that hydrocarbon emissions do not exceed the hydrocarbon standard during DRE testing.

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(a)(1)(iii)]

After such time as EPA promulgates all performance specifications and operational requirements applicable to PM CEMS, the facility must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this permit.

c. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(a)(2)]

The facility must install, calibrate, maintain, and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to 40 C.F.R. part 63, Subpart EEE and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), 8A (hydrocarbons) in Appendix B to 40 C.F.R. Part 60, and the requirements of 40 CFR 63.1209(3) and (4).

d. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(a)(5) and 63.8(f)]

The facility may petition EPA to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas under 40 C.F.R. § 63.8(f), in lieu of compliance with the corresponding OPLs.

e. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(a)(6)]

Calculation of rolling averages for CEMS and COMS should be performed in accordance with the requirements of 40 CFR 63.1209(a)(6).

2. Other Continuous Monitoring Systems (CMS) [40 CFR 63.1209(b)]

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(b)(1) and (2)]

The facility must use CMS to document compliance with the applicable operating parameter limits for DRE, dioxin/furan, mercury, particulate matter, semivolatile metals, and low volatile metals. Except as specified in paragraphs 40 CFR 63.1209(b)(2)(i) and (ii) of this section, the facility must install and operate CMS other than CEMS in conformance with 40 CFR 63.8(c)(3) that requires the facility, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system:

- The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. The facility must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The facility must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator.
- If the facility operates a carbon injection system, the accuracy of the weight measurement device must be ±1% of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days.

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(b)(3)]

CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

c. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(b)(4)]

The span of the non-CEMS CMS detector must not be exceeded. The facility must interlock the span limits into the AWFCO system required by § 63.1206(c)(3).

d. NESHAP for Hazardous Waste Combustors [40 CFR 63.1209(b)(5)]

Calculation of rolling averages for CMS should be performed in accordance with the requirements of 40 CFR 63.1209(b)(5).

3. Bag Leak Detection Systems (CMS) [40 CFR 63.1206(c)(8)]

Veolia's incinerators are equipped with a baghouse; therefore, the facility must continuously operate either a bag leak detection system or a particulate matter detection system. The systems must meet the specifications listed in 40 CFR 63.1206(i) – (iv).

4. Feedstream Analysis [40 CFR 63.1209(c)]

An analysis of each feedstream to the incinerators must be obtained prior to feeding the material to document compliance with the feedrate limits contained in the most recent NOC.

- The facility must develop and implement a feedstream analysis plan (FAP), the contents of which address the requirements in 40 CFR 63.1209(c)(2).
- The FAP must be submitted to the agency for review and approval upon request in accordance with 40 CFR 63.1209(c)(3). The FAP is provided in Appendix J of this document.
- To comply with the applicable feedrate limits of this section, the facility must monitor and record feedrates as provided in 40 CFR 63.1209(c)(4):

  (1) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

  (2) Determine and record the mass or volume flowrate of each feedstream by a CMS. If the facility determines flowrate of a feedstream by volume, the facility must determine and record the density of the feedstream by sampling and analysis (unless the facility reports the constituent concentration in units of weight per unit volume (e.g., mg/l)); and

  (3) Calculate and record the mass feedrate of the parameter per unit time.

  In accordance with 40 CFR 63.1209(c)(5), the facility is not required to monitor the levels of metals or chlorine in the following feedstreams to document compliance with the feedrate limits under this section provided that the facility documents in the comprehensive performance test plan the expected levels of the constituent in the feedstream and account for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air, and feedstreams from vapor recovery systems.

5. Performance Evaluations [40 CFR 63.1209(d), 63.8(d) and 63.8(e)]

The facility is required to conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by 40 CFR 63.1207. In addition, the quality assurance procedures for CEMS prescribed in the appendix to 40 CFR 63 Subpart EEE is applicable.

6. Conduct of Monitoring [40 CFR 63.1209(e) and 63.8(b)]

Monitoring must be performed in accordance with 40 CFR 63.8(b).

7. Operation and Maintenance of Continuous Monitoring Systems [40 CFR 63.1209(f) and 63.8(c)]

The provisions of 40 CFR 63.8(c) apply except:

- The requirements of 40 CFR 63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of section 63.8(c)(3); and
- The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of 40 CFR 63.8(c)(4)(ii).

8. Reduction of Monitoring Data [40 CFR 63.1209(h) and 63.8(g)]

Reduction of monitoring data must be performed in accordance with 40 CFR 63.8(b).

9. Operating Parameters for Multiple Standards [40 CFR 63.1209(i) through (p)]

The facility must establish limits on the operating parameters identified in 40 CFR 63.1209(j) through (p) based on comprehensive performance testing to ensure it maintains compliance with the emission standards of this subpart. For several parameters, the facility must establish a limit for the parameter to ensure compliance with more than one emission standard. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies. A list of the OPLs required is provided in section C.1.a of this document.

10. Operating Parameter Limit Averaging Periods [40 CFR 63.1209(r)]

The averaging periods specified for operating parameters are not-to-exceed averaging periods. The facility may elect to use shorter averaging periods. For example, the facility may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified for mercury.

E. Incinerators: Unit 2, Unit 3, and Unit 4 Performance Testing Requirements

1. Changes to the Source [40 CFR 63.1206(b)(5)(i)(B)]

If changes occur (as defined in 40 CFR 63.1206(b)(5)(iii)) to the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS, a comprehensive performance test must be conducted under the requirements of 40 CFR 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and to confirm

existing or establish new OPLs as required under 40 CFR 63.1209, and submit a new Notification of Compliance.

2. Compliance with CO and THC Emission Standard [40 CFR 63.1206(b)(6)]

This paragraph applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards of subpart EEE by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the DRE performance test or its equivalent.

(a) If, during the acceptable DRE test, the Permittee did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, the facility must either:

- Perform, as part of the performance test, an "equivalent DRE test" to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs, each with a minimum duration of 1 hour during which the Permittee operates the combustor as close as reasonably possible to the OPLs that the Permittee established based on the initial DRE test. The Permittee must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or
- Perform a DRE test as part of the performance test.

3. Types of Performance Tests [40 CFR 63.1207(b)]

- The facility is required to conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by 40 CFR 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems.
- The facility must conduct confirmatory performance tests to demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions and to conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under 40 CFR 63.1209(k).
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4. Frequency of Performance Tests [40 CFR 63.1207(d)]

The facility must conduct testing periodically as prescribed in 40 CFR 63.1207(d)(1) through (d)(3).

- A comprehensive performance test must be conducted no later than 61 months after the beginning of the previous comprehensive performance test used to show compliance with 40 CFR 63 Subpart EEE requirements.

- A confirmatory test must be conducted no later than 31 months after the beginning of the previous comprehensive performance test used to show compliance with 40 CFR 63 Subpart EEE requirements.

The deadline for commencing confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test.

5. Content of Performance Test Plans [40 CFR 63.1207(f)]

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(f)(1)]

Comprehensive performance test plans must meet the requirements of 40 CFR 63.7(c)(2)(i)-(iii) and (v). In addition, comprehensive performance test plans must include the following information:

- An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes: heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and viscosity or description of the physical form of the feedstream.
- For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by § 63.60: an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream except as provided by paragraph 40 CFR 63.1207(f)(1)(ii)(D) of this section, an approximate quantification of such identified organic hazardous air pollutants in the hazardous waste feedstreams, within the precision produced by analytical procedures of § 63.1208(b)(8), and a description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios. A hazardous waste feedstream analysis for organic hazardous air pollutants may approved on a case-by-case basis in lieu of the analysis required under paragraph 40 CFR 63.1207(f)(1)(ii)(A) if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in the facility's hazardous waste feedstreams.
- A detailed engineering description of the hazardous waste combustor, including: manufacturer's name and model number of the hazardous waste combustor; type of hazardous waste combustor; maximum design capacity in appropriate units; description of the feed system for each feedstream; capacity of each feed system; description of automatic hazardous waste feed cutoff system(s); description of the design, operation, and maintenance practices for any air pollution control system; and description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems.
- A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used,

sampling and monitoring frequency, and planned analytical procedures for sample analysis.

- A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors.
- A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards.
- A description of, and planned operating conditions for, any emission control equipment that will be used.
- Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.
- A determination of the hazardous waste residence time as required by 40 CFR 63.1206(b)(11).
- If the facility is requesting to extrapolate metal feedrate limits from comprehensive performance test levels under 40 CFR 63.1209(l)(1)(v) or 63.1209(n)(2)(vii): a description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards, documentation of the historical range of normal (i.e., other than during compliance testing) metals feedrates for each feedstream, and documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards.
- If the facility does not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under 40 CFR 63.1209(c)(5), it must include documentation of the expected levels of regulated constituents in those feedstreams.
- Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section.
- For cement kilns with in-line raw mills, if the facility elects to use the emissions averaging provision of this subpart, it must notify the Administrator of its intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision.
- For preheater or preheater/precalciner cement kilns with dual stacks, if the facility elects to use the emissions averaging provision of this subpart, it must notify the Administrator of its intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision.
- If the facility requests to use Method 23 for dioxin/furan, it must provide the information required under 40 CFR 63.1208(b)(1)(i)(B).
- If the facility is not required to conduct performance testing to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards 40 CFR 63.1207(m), it must

include with the comprehensive performance test plan documentation of compliance with the provisions of that section.

- If the facility proposes to use a surrogate for measuring or monitoring gas flowrate, it must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by 40 CFR 63.1207(m)(7), and 40 CFR 63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i).
- An application must be submitted to request alternative monitoring under 40 CFR 63.1209(g)(1) not later than with the comprehensive performance test plan, as required by 40 CFR 63.1209(g)(1)(iii)(A).
- The temperature location measurement must be documented in the comprehensive performance test plan, as required by 40 CFR 63.1209(j)(1)(i) and 63.1209(k)(2)(i).
- For the activated carbon injection system, the facility must document in the comprehensive performance test plan: the manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by 40 CFR 63.1209(k)(6)(ii); and key parameters that affect carbon adsorption, and the operating limits the facility establishes for those parameters based on the carbon used during the performance test, if it elects not to specify and use the brand and type of carbon used during the comprehensive performance test, as required by 40 CFR 63.1209(k)(6)(iii).
- For a dry scrubber used to control hydrogen chloride and chlorine gas, the facility must document in the comprehensive performance test plan key parameters that affect adsorption, and the limits it establishes for those parameters based on the sorbent used during the performance test, if the facility elects not to specify and use the brand and type of sorbent used during the comprehensive performance test, as required by 40 CFR 63.1209(o)(4)(iii)(A).
- For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how the facility will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels.
- Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan.

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(f)(2)]

Confirmatory performance test plans must meet the requirements of 40 CFR 63.7(c)(2)(i)-(iii) and (v). In addition, confirmatory performance test plans must include the following information:

- A description of the normal hydrocarbon or carbon monoxide operating levels, as specified in paragraph (g)(2)(i) of this section, and an explanation of how these normal levels were determined.
- A description of the normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined.

- A description of the normal chlorine operating levels, as specified in paragraph (g)(2)(iii) of this section, and an explanation of how these normal levels were determined.
- For a carbon injection system or a carbon bed, a description of the normal cleaning cycle of the particulate matter control device, as specified in 40 CFR 63.1207(g)(2)(iv), and an explanation of how these normal levels were determined.
- A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
- A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors.
- A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard.
- A description of, and planned operating conditions for, any emission control equipment that will be used.
- Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.
- Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan.

6. Operating Conditions During Performance Tests [40 CFR 63.1207(g)]

The provisions of 40 CFR 63.7(e) applies. Performance testing must be conducted under operating conditions representative of the extreme range of normal conditions which is consistent with 40 CFR 63.7(e)(1).

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(g)(a)]

For the following parameters, the combustor must be operated during the comprehensive performance test under normal conditions (or conditions that will result in higher than normal emissions):

- *Chlorine feedrate.* The facility must feed normal (or higher) levels of chlorine during the dioxin/furan performance test;
- *Ash feedrate.* For hazardous waste incinerators, the facility must conduct the following tests when feeding normal (or higher) levels of ash: the semivolatile metal and low volatile metal performance tests, and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used; and
- *Cleaning cycle of the particulate matter control device.* The facility must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: the particulate matter, semivolatile

metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used.

Given that the facility must establish limits for the applicable operating parameters specified in 40 CFR 63.1209 based on operations during the comprehensive performance test, the facility may conduct testing under two or more operating modes to provide operating flexibility.

Prior to obtaining performance test data, the facility must operate under performance test conditions until it reaches steady-state operations with respect to emissions of pollutants it must measure during the performance test and operating parameters under 40 CFR 63.1209 for which it must establish limits. During system conditioning, the facility must ensure that each operating parameter for which it must establish a limit is held at the level planned for the performance test. The facility must include documentation in the performance test plan justifying the duration of system conditioning.

b. **NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(g)(b)]**

For the following parameters, the confirmatory performance testing for dioxin/furan must be conducted under normal operating conditions:

- *Carbon monoxide (or hydrocarbon)* CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by paragraph (g)(2)(v) of this section. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste.
- Each operating limit (specified in 40 CFR 63.1209) established to maintain compliance with the dioxin/furan emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by 40 CFR 63.1207(g)(2)(v). The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste.
- Chlorine must be fed at normal feedrates or greater.
- For a carbon injection system or carbon bed, normal cleaning cycle of the particulate matter control device.
- The Administrator may approve an alternative range to that required by paragraphs 40 CFR 63.1207(g)(2)(i) and (ii) if the facility documents in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range

specified in the test plan based on a finding that the facility could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard.

7. Operating Conditions During Subsequent Performance Tests [40 CFR 63.1207(h)]

Current operating parameter limits established under 40 CFR 63.1209 are waived during subsequent comprehensive performance testing. Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting.

8. Test Methods [40 CFR 63.1208]

Test methods as described in 40 CFR 63.1208 must be used to determine compliance with the applicable emission standards.

9. Failure of Performance Test [40 CFR 63.1207(l)]

a. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(l)(1)]

The provisions of this paragraph do not apply to the initial comprehensive performance test if the facility conducts the test prior to its compliance date.

- If it is determined (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that the facility has exceeded any emission standard during a comprehensive performance test for a mode of operation, hazardous waste burning must cease immediately under that mode of operation. This determination must be made within 90 days following completion of the performance test.
- If the facility has failed to demonstrate compliance with the emission standards for any mode of operation, prior to submitting a revised Notification of Compliance, it may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by 40 CFR 63.1207(l)(3).
- The facility must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section.

- The facility must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test.

b. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(l)(2)]

- If it is determined (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that the facility has failed the dioxin/furan emission standard during a confirmatory performance test, it must cease burning hazardous waste immediately. This determination must be made within 90 days following completion of the performance test.
- To burn hazardous waste in the future, the facility must submit to the Administrator for review and approval a test plan to conduct a comprehensive performance test to identify revised limits on the applicable dioxin/furan operating parameters specified in 40 CFR 63.1209(k).
- To burn hazardous waste in the future, the facility must submit to the Administrator a Notification of Compliance with the dioxin/furan emission standard. The facility must include in the Notification of Compliance the revised limits on the applicable dioxin/furan operating parameters specified in 40 CFR 63.1209(k); and
- Until the Notification of Compliance is submitted, the facility must not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by 40 CFR 63.1207(l)(3) of this section.

c. NESHAP for Hazardous Waste Combustors [40 CFR 63.1207(l)(3)]

The facility may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The facility must specify operating requirements; including limits on operating parameters that are determined to ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.

F. Incinerators: Unit 2, Unit 3, and Unit 4 Recordkeeping and Reporting

1. Summary of Notification Requirements [40 CFR 63.1210(a)]

The following notification requirements as outlined in 40 CFR 63.1210 are applicable:

Reference	Notification
63.9(b)	Initial notifications that the facility is subject to Subpart EEE of this Part.

Reference	Notification
63.9(d)	Notification that the facility is subject to special compliance requirements.
63.9(j)	Notification and documentation of any change in information already provided under § 63.9.
63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance.
63.1206(c)(8)(iv)	Notification of excessive bag leak detection system exceedances.
63.1206(c)(9)(v)	Notification of excessive particulate matter detection system exceedances.
63.1207(e), 63.9(e) 63.9(g)(1) and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.[1]
63.1210(b)	Notification of intent to comply.
63.1210(d), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.

The facility must submit the following notifications to the Administrator if it requests or elects to comply with alternative requirements:

Reference	Notification, Request, Petition, or Application
63.9(i)	The facility may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
63.10(e)(3)(ii)	The facility may request to reduce the frequency of excess emissions and CMS performance reports.
63.10(f)	The facility may request to waive recordkeeping or reporting requirements.
63.1204(d)(2)(iii), 63.1220(d)(2)(iii)	Notification that the facility elects to comply with the emission averaging requirements for cement kilns with in-line raw mills.
63.1204(e)(2)(iii), 63.1220(e)(2)(iii)	Notification that the facility elects to comply with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
63.1206(b)(4), 63.1213, 63.6(i), 63.9(c)	The facility may request an extension of the compliance date for up to one year.
63.1206(b)(5)(i)(C)	The facility may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.
63.1206(b)(8)(iii)(B)	If the facility elects to conduct particulate matter CEMS correlation testing and wishes to have federal particulate matter and opacity standards and associated operating limits waived during the testing, it must notify the Administrator by submitting the correlation test plan for review and approval.
63.1206(b)(8)(v)	The facility may request approval to have the particulate matter and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test.

Reference	Notification, Request, Petition, or Application
63.1206(b)(9)	Owners and operators of lightweight aggregate kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions.
63.1206(b)(10)	Owners and operators of cement kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions.
63.1206(b)(14)	Owners and operators of incinerators may elect to comply with an alternative to the particulate matter standard.
63.1206(b)(15)	Owners and operators of cement and lightweight aggregate kilns may request to comply with the alternative to the interim standards for mercury.
63.1206(c)(2)(ii)(C)	The facility may request to make changes to the startup, shutdown, and malfunction plan.
63.1206(c)(5)(i)(C)	The facility may request an alternative means of control to provide control of combustion system leaks.
63.1206(c)(5)(i)(D)	The facility may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits.
63.1207(c)(2)	The facility may request to base initial compliance on data in lieu of a comprehensive performance test.
63.1207(d)(3)	The facility may request more than 60 days to complete a performance test if additional time is needed for reasons beyond its control.
63.1207(e)(3), 63.7(h)	The facility may request a time extension if the Administrator fails to approve or deny its test plan.
63.1207(h)(2)	You may request to waive current operating parameter limits during pretesting for more than 720 hours.
63.1207(f)(1)(ii)(D)	The facility may request a reduced hazardous waste feedstream analysis for organic hazardous air pollutants if the reduced analysis continues to be representative of organic hazardous air pollutants in its hazardous waste feedstreams.
63.1207(g)(2)(v)	The facility may request to operate under a wider operating range for a parameter during confirmatory performance testing.
63.1207(i)	The facility may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing.
63.1207(j)(4)	The facility may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond itscontrol.
63.1207(l)(3)	After failure of a performance test, the facility may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
63.1209(a)(5), 63.8(f)	The facility may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits.
63.1209(g)(1)	The facility may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that it must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit.

Reference	Notification, Request, Petition, or Application
63.1209(l)(1)	The facility may request to extrapolate mercury feedrate limits.
63.1209(n)(2)	The facility may request to extrapolate semivolatile and low volatile metal feedrate limits.
63.1211(d)	The facility may request to use data compression techniques to record data on a less frequent basis than required by § 63.1209.

2. Summary of Reporting Requirements [40 CFR 63.1211(a)]

The following reports must be submitted in accordance with 40 CFR 63.1211:

Reference	Report
63.10(d)(4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under § 63.6(i).
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.
63.10(e)(3)	Excessive emissions and continuous monitoring system performance report and summary report.
63.1206(c)(2)(ii)(B)	Startup, shutdown, and malfunction plan.
63.1206(c)(3)(vi)	Excessive exceedances reports.
63.1206(c)(4)(iv)	Emergency safety vent opening reports.
63.1206(c)(3)(vi)	AWFCO excessive exceedance reports.
63.1206(c)(8)(iv)	BLDS excessive exceedance reports.
63.1206(c)(4)	ESV opening that results in failure to meet emission standards.

3. Summary of Recordkeeping Requirements [40 CFR 63.1211(b)]

The following records must be retained in the operating record:

Reference	Document, Data, or Information
63.1200, 63.10(b) and (c)	General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
63.1206(b)(1)(ii)	If the facility elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, it must document in the operating record that it is in compliance with those requirements.
63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
63.1206(b)(11)	Calculation of hazardous waste residence time.
63.1206(c)(2)	Startup, shutdown, and malfunction plan.

Reference	Document, Data, or Information
63.1206(c)(2)(v)(A)	Documentation of the facility's investigation and evaluation of excessive exceedances during malfunctions.
63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.
63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing.
63.1206(c)(4)(ii)	Emergency safety vent operating plan.
63.1206(c)(4)(iii)	Corrective measures for any emergency safety vent opening.
63.1206(c)(5)(ii)	Method used for control of combustion system leaks.
63.1206(c)(6)	Operator training and certification program.
63.1206(c)(7)(i)(D)	Operation and maintenance plan.
63.1209(c)(2)	Feedstream analysis plan.
63.1209(k)(6)(iii), 63.1209(k)(7)(ii), 63.1209(k)(9)(ii), 63.1209(o)(4)(iii)	Documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material.
63.1209(q)	Documentation of changes in modes of operation.
63.1211(c)	Documentation of compliance.

The permittee shall maintain all records for five calendar years and make them available at all times for inspection by EPA, IEPA, local agencies or their duly authorized representatives in accordance with 40 CFR 71.6(a)(3)(i)(B).

G. Waste Processing Unit Requirements (MP-1, MP-2 and LPR)

Material processing involves the repackaging of solid waste material from larger containers such as drums and totes to smaller "charge" containers/boxes for subsequent incineration. Aqueous or organic free liquids may also be present. An inert absorbent is used to fix the free liquids to facilitate repackaging. Volatile organic materials may be emitted during material processing in MP-1 and MP-2. The regulations applicable to the emission units are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Visible Emissions Limitations [35 IAC 212.123]

Visible emissions from either MP-1 or MP-2 shall not exceed 30% opacity, except that, for any 8-one minute period in any one hour, the opacity may be greater than 30% but less than 60%, provided that the opacity greater than 60% occurs at one emission unit limited to 3 times within a 24-hour period.

2. Use of Organic Material [35 IAC 219.301]

Emission of organic material from these emission units shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material.

3. NESHAP for Off-Site Waste and Recovery Operations [40 CFR 63 Subpart DD]

Veolia is a waste management operation that receives off-site material and is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF). The National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations are applicable to the MP-1 and MP-2 operations at the facility. As required in 40 CFR 63.683(b)(1)(i) and 63.688(a), Veolia controls air emissions from the containers processed in these waste management units by following the standards for Container Level 1 controls specified in 40 CFR 63.922 for Containers.

4. NESHAP for Containers [40 CFR 63.922]

A container using Container Level 1 controls is one of the following:

a. A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in 40 CFR 63.922(f).
b. A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap).
c. An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated material in the container such that no regulated material is exposed to the atmosphere. One example of such a barrier is application of suitable organic vapor suppressing foam.
d. A container used to meet the requirements of either paragraph 40 CFR 63.922(b)(2) or (b)(3) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed. Whenever a regulated material is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as described in 40 CFR 63.922(d)(1) through (d)(5).

The owner or operator shall inspect containers using Container Level 1 controls in accordance with the procedures specified in 40 CFR 63.926(a).

5. NESHAP for Containers [40 CFR 63.925 and 40 CFR 71.6(a)(3)(i)(A)]

To determine that there are no detectable organic emissions for the purpose of complying with 40 CFR 63 Subpart PP, the facility shall conduct a test annually in accordance with the procedures specified in Method 21 of 40 CFR. Part 60, Appendix A and 40 CFR 63.925. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked annually. The test shall be performed when a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the units is in the containers.

6. NESHAP for Containers [40 CFR 71.6(a)(3)]

- The facility shall promptly notify the permitting authority of deviations of the affected waste processing units with the permit requirements, pursuant to 40 CFR 71.6(a)(3)(iii)(B). Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
- The facility shall maintain the records of each visual inspection, visible emission observation, findings of any investigation required, and results of any Method 9 observation conducted.
- The records shall include the date, time, type of investigation conducted, and type of corrective actions as applicable.

7. NESHAP for Benzene Waste Operations [40 CFR 61 Subpart FF]

Veolia operates a hazardous waste TSD facility that manages benzene-containing hazardous waste as regulated by this subpart. Containers of benzene-containing waste are processed in MP-1 and MP-2 following standard work practices that address the provisions of 40 CFR 61.345.

8. Emission Calculation Requirements [40 CFR 71.6(a)(3)(i)(B)]

VOM/HAP emissions from units MP1, MP2, and the labpack shall be calculated based on the most recent version of the TANKS program.

H. Liquid Waste Storage Tank Requirements

Bulk liquid wastes are stored in Tank Farm #1 and Tank Farm #3. All tanks are vertical, fixed-roof tanks. Tank Farm #1 supplies liquid waste to Unit 2 and Unit 3 incinerators. Tank Farm #3 supplies liquid waste to Unit 4 incinerator. The regulations applicable to the emission units are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Use of Organic Material [35 IAC 219.301]

Emission of organic material from these emission units shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material.

2. Organic Material Emission from Pumps and Compressors [35 IAC 219.142]

No person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of VOL with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) into the atmosphere from any pump or compressor in any 15-minute period at standard conditions.

3. Standards of Performance for Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60 Subpart Kb]

The facility shall equip the applicable tank with a control method as listed in 40 CFR 60.112b. The requirements of this regulation apply to Organic Liquid Storage Tanks #300, #302, #304, #306, #308, and #310, all of which have capacity greater than 75 cubic meters (19,813 gallons). Documentation and records as described in 40 CFR 60.115b(c) shall be retained on site.

4. Storage Tanks [35 IAC 219.122 and 129]

Each affected liquid waste storage tank is subject to 35 IAC 219.129(f) and 35 IAC 219.122(b).

- The Permittee shall maintain readily accessible records of the dimension and analysis of the capacity of each affected liquid waste storage tank.
- Each affected liquid waste storage tank should be equipped with a permanent submerged loading pipe.

5. NESHAP for Benzene Waste Operations [40 CFR 61 Subpart FF]

Veolia operates a hazardous waste TSD facility that manages benzene-containing hazardous waste as regulated by this subpart. Tanks containing benzene waste must be designed and operated as described in 40 CFR 61.343 and 61.349. Documentation and records as described in 40 CFR 61.356 shall be retained on site.

6. NESHAP for Off-Site Waste and Recovery Operations [40 CFR 63 Subpart DD]

Veolia is a waste management operation that receives off-site material and is regulated as a hazardous waste TSD facility. The National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations is applicable to the liquid waste storage tanks when only non-benzene waste is stored. The provisions of 40 CFR 63.683(b)(2)(i) exempts the tanks from the control requirements of Subpart DD if such

units are subject to another subpart of 40 CFR Part 63 or part 61 and the HAP emissions are controlled. The tanks are subject to 40 CFR 61 Subpart FF for benzene-containing waste.

7. Monitoring and Testing [40 CFR 71.6(a)(3)(i)(A) and (B)]

The facility shall comply with the monitoring requirements established in 40 CFR 61.354(d), the inspection requirements in 40 CFR 61.349(f)-(g), and the testing requirements of 40 CFR 61.349(c) and 61.355(h).

If a breakthrough does not occur within 365 days of operation on a high Btu tank, the permittee must replace the carbon. If a breakthrough does not occur within 3 years of operation on a low Btu tank, the carbon must be replaced.

The presence and condition of the submerged loading pipes from the top will be observed and documented during the quarterly inspections; with a physical inspection every five years.

8. Recordkeeping [40 CFR 71.6(a)(3)]

The following records must be maintained on site:

- Total organic liquid wastes processed in gallons per month and gallons per year;
- Average VOM/HAP content of received wastes, (percent by weight)
- Average vapor pressure of received liquid wastes;
- Records of the size (capacity) of the affected liquid wastes storage tanks; and
- Records of all inspections performed.

9. Organic Material Emissions [CP #88030001, Condition 3]

Emissions of organic material from Tank Farm #3 shall not exceed 2.5 tons/year.

I. Bulk Solid Waste Storage Facility Requirements

Bulk solid waste is stored in four pits in the Bulk Feed Building. A clamshell moves solid wastes from the Bulk Feed Building to the Unit 4 incinerator. The building is equipped with a cyclone, a baghouse, and a carbon adsorption system. The regulations applicable to the emission unit are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Particulate Emission from Process Units for which Construction or Modification Commenced on or After April 14, 1972 [35 IAC 212.321]

The facility shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process

emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection 35 IAC 212.321(c).

2. Use of Organic Material [35 IAC 219.301]

Emission of organic material from this emission unit shall not exceed 8 lb/hr except as allowed by 35 IAC 219.302(b). If no odor nuisance exists, the limitation shall apply only to photochemically reactive material.

3. Visible Emissions Limitations [35 IAC 212.123]

Visible emissions from the unit shall not exceed 30% opacity, except that, for any eight one-minute periods in any one hour, the opacity may be greater than 30% but less than 60%, provided that the opacity greater than 60% occurs at one emission unit limited to 3 times within a 24-hour period.

4. NESHAP for Benzene Waste Operations [40 CFR 61 Subpart FF]

Veolia operates a hazardous waste TSD facility that manages benzene-containing hazardous waste as regulated by this subpart. This emission unit is defined as a tank within an enclosure. Units containing benzene waste must be designed and operated as described in 40 CFR 61.343 and 61.349.

The bulk solid waste storage facility must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a permanent or Temporary Total Enclosure" in 40 CFR 52.741, Appendix B. An average facial velocity of at least 200 ft/minute flowing into the enclosure at all natural draft openings must be maintained. Annual verification testing must be performed in accordance with 40 CFR 61.343(e).

5. NESHAP for Off-Site Waste and Recovery Operations [40 CFR 63 Subpart DD]

Veolia is a waste management operation that receives off-site material and is regulated as a hazardous waste TSD facility. The National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations is applicable to the bulk solid waste storage facility. The provisions of 40 CFR 63.683(b)(2)(i) exempts the tanks from the control requirements of Subpart DD if such units are subject to another subpart of 40 CFR Part 63 or part 61 and the HAP emissions are controlled. The unit is subject to 40 CFR 61 Subpart FF.

6. Work Practice and Operational Requirements [40 CFR 71.6(a)(1)]

- Except during times when bulk solid wastes are unloaded into the pits, all doors of the building shall be closed and all operations shall be enclosed inside the building.

- The enclosed building where bulk solid waste is accumulated shall be operated under permanent negative pressure.

7. Monitoring and Testing [40 CFR 71.6(a)(3)(i)(A) and (B)]

The facility shall comply with the monitoring procedures in 40 CFR 61.354(c), the inspection requirements in 40 CFR 349, and the testing requirements of 40 CFR 61.349 and 61.355(h).

A visual survey the Bulk Feed Building shall be performed each day for the presence of visible emissions or fugitive emissions of particulate matter. If visible emissions or fugitive emissions of particulate matter are observed the following procedures shall be followed:

- Immediately, upon conclusion of the visual observation, investigate the source and reason for the presence of visible emissions or fugitive emissions; and
- As soon as practicable, take appropriate corrective action.

If the corrective actions undertaken do not eliminate the visible or fugitive emissions, a Method 9 test shall be conducted within 24 hours of the initial survey. If any of the visible emissions observations indicate visible emissions greater than 20% opacity, the Permittee shall conduct daily visible emissions observations, for thirty minutes, of the emission point in question until two consecutive daily observations indicate visible emissions of 20% opacity or less. If the Method 9 visible emissions observation, or if two consecutive daily observations, indicate visible emissions of 20% opacity or less, the Permittee shall conduct weekly visible emissions observations of the emission point for three additional weeks.

8. Recordkeeping and Reporting [40 CFR 71.6(a)(3)]

Records as described in 40 CFR 61.356(f) - (j) and (n) shall be maintained on site.

In addition, the following records will be maintained on site:

- Amount of accepted solid wastes, in tons per month and tons per year.
- A log of maintenance and repair of air pollution control devices with the dates of service/repair made, and inspection conducted.
- Records of the pressure being maintained inside the building.
- Monthly and annual VOM/HAP emissions. Details of each visual survey or visible emissions observation, including date, time, observer and results for each emission unit and any other pollutant emitting activity.
- Date, time, and type of any investigation conducted.
- Findings of the investigation, including the reasons for the presence of visible emissions or fugitive emissions of particulate matter.
- Date, time, and type of corrective actions taken.

- Results of any Method 9 visible emissions observations conducted on the source of visible or fugitive emissions.

J. Drum Crusher Requirements

Drums that are unsuitable for reuse are crushed by this emission unit. The regulations applicable to the emission unit are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Use of Organic Material [35 IAC 219.301]

Emission of organic material from this emission unit shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material.

2. Particulate Matter Limitation [35 IAC 219.321]

The emission of particulate matter into the atmosphere in any one-hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972 at a source or premises, shall not exceed the allowable emission rates specified in subsection (c) of 35 IAC 212.321.

3. Visible Emissions Limitations [35 IAC 212.123]

Emission of smoke or other particulate matter shall not exceed an opacity greater than 30%t, into the atmosphere from any emission source, except as allowed by 35 IAC 212.123(b) and 212.124.

4. Monitoring and Testing [40 CFR 71.6(a)(3)(i)(A) and (B)]

A visual survey of the drum crusher shall be performed each day for the presence of visible emissions or fugitive emissions of particulate matter. If the observations conducted identify any visible emissions or fugitive emissions of particulate matter, the facility shall:

- Immediately, upon conclusion of the visual observation, investigate the source and reason for the presence of visible emissions or fugitive emissions; and
- As soon as practicable, take appropriate corrective action.

If the corrective actions undertaken do not eliminate the visible or fugitive emissions, the facility shall, within 24 hours of the initial survey, conduct a test using EPA Reference Method 9 (see 40 CFR part 60, appendix A). If any of the visible emissions observations indicate visible emissions greater than 20% opacity, a Method 9 visible emissions observation shall be conducted of the emission point in question for thirty minutes each day, until two consecutive daily observations indicate visible emissions of 20% opacity or less. If the Method 9 visible emissions observation or if two consecutive daily

observations indicate visible emissions of 20% opacity or less, the facility shall conduct weekly visible emissions observations of the emission point for three additional weeks.

5. Recordkeeping and Reporting [40 CFR 71.6(a)(3)]

- Records of the total number of drums crushed (drums/hour and drums/year) for the drum crusher shall be maintained pursuant to 40 C.F.R. § 71.6(a)(i)(3)(B).
- The facility shall calculate and keep records of VOM emissions from the drum crusher based on the emission factor equal to 0.0221 lb VOM/1 drum crushed. This emission factor is based on a characterization of the drum residue as containing the most prevalent organics at the concentrations present in the waste received during 2007 – 2011. The maximum drum crushing rate is 40 drums per hour.
- Records of the fugitive emissions shall be maintained including: details of each visual survey or visible emissions observation, including date, time, name of observer and results for each emission unit and any other pollutant emitting activity and date, time and type of any investigation conducted.

K. Boiler Requirements

One 10.46 million Btu per hour natural gas-fired boiler is located on-site. The existing boiler supplies heat and steam to the facility. The regulations applicable to the existing emission unit are listed below. A listing of any non-applicable requirements and the reasons for the non-applicability are provided in Appendix B.

1. Fuel Combustion Emission Sources (> 10 MMBtu/hr) [35 IAC 216.121]

Carbon monoxide emissions from this emission unit shall not exceed 200 ppm corrected to 50% excess air.

2. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60 Subpart Dc]

The facility shall record and maintain records of the amount of fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

3. Visible Emissions Limitations [35 IAC 212.123]

Emission of smoke or other particulate matter shall not exceed an opacity greater than 30%, into the atmosphere from any emission source, except as allowed by 35 IAC 212.123(b) and 212.124.

4. Emission and Operational Limitations [CP# 95080025]

Emissions and operation of this boiler shall not exceed the following limits:

Operating Hours = 8,760
NOx 1.46 lb/hr, 6.41 ton/yr
CO2.1 lb/hr, 9.2 ton/yr
Fuel = Natural Gas only at maximum of 7.6 mmscf/month and 91.1 mmscf/year.

These limits are based upon the maximum firing rate for the boiler, and standard emission factors/

5. Emission Limitations [40 CFR 63.52]

Emissions of CO from the boiler shall not exceed 100 ppm by volume on a dry basis corrected to 3%t oxygen.

6. NESHAP Major Sources: Industrial, Commercial And Institutional Boilers and Process Heaters [40 CFR 63 Subpart DDDDD]

Boiler #1 must meet the work practice standards listed below.

- Performance of an annual tune-up addressing all regulated emissions. The tune-up shall include the following as described in 40 CFR 63.7540(10):
    1. Inspection of the burner, the flame pattern, and the air-to-fuel ratio controls for operation in accordance with manufacturer's specifications and performance of adjustments as necessary.
    2. Optimization of total CO emissions in coordination with NO_X limitations.
    3. Measurement of CO concentrations and oxygen concentration in the boiler exhaust.
    4. Production of a written report documenting CO concentrations, corrective actions, and the amount of fuel combusted during the year.
- Performance of a one-time energy assessment by a qualified energy assessor.
- Submission of a Notification of Compliance Status within 60 days of the initial tune-up. The applicable information listed in 40 CFR 63.7545(e)(1) through (8) must be provided in the Notification of Compliance Status.
- Submission of an Annual Compliance Report as described in 40 CFR 63.7550 by January 31st of each year.

7. Monitoring and Testing [40 CFR 71.6(a)(3)(i)(A) and (B)]

- An annual Method 9 test to ensure compliance with the opacity limit shall be performed.
- An annual tune-up in accordance with 40 CFR 63.7540 shall be performed.

8. **Recordkeeping and Reporting [40 CFR 71.6(a)(3) and 40 CFR 63.7550(b) and 40 CFR 63.7555]**

The following records must be maintained on site:

- Monthly records of natural gas usage.
- Annual records of natural gas usage (million square cubic feet per year.
- Records of the results of the annual tune-up.
- Documentation of the one-time energy assessment.

An annual compliance report must be submitted which contains:

- Company and facility name and address.
- Process unit information.
- Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- Date of report and beginning and ending dates of the reporting period.
- The total fuel use by the boiler, for each calendar month within the annual reporting period, including.
- Date of the most recent tune-up and burner inspection.
- The date and duration of the boiler startup, shutdown, and/or malfunction events during the reporting period.

L. Emergency Generator Requirements

Two emergency generators are located at the facility. They are stationary reciprocating internal combustion engines (RICE) with a site rating of less than 500 brake HP used only for emergency purposes that operate at a major source of HAP emissions.

1. **NESHAP for Stationary Reciprocating Internal Combustion Engines [40 CFR 63 Subpart ZZZZ]**

The emergency RICE must comply with the requirements of 40 CFR 63.6640(f) in order to be considered emergency stationary RICE. These requirements are listed below.

- For owners and operators of emergency engines, any operation other than emergency operation, maintenance, and testing, and operation in nonemergency situations for 50 hours per year, as permitted in this section, is prohibited.
- There is no time limit on the use of emergency stationary RICE in emergency situations.
- The emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness

testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

- The emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for nonemergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(4), as long as the power provided by the financial arrangement is limited to emergency power.

2. Work Practice Standards [40 CFR 63.6602)]

Each emergency RICE must comply with the following requirements.

During normal operations:

- Change oil and filter every 500 hours of operation or annually, whichever comes first;
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- During startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop and follow the facility's own maintenance plan, which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Install a non-resettable hour meter if one is not already installed.

3. Recordkeeping and Reporting [40 CFR 63.6655]

Maintain the following records:

- Description of each malfunction of operation/monitoring equipment;
- Description of all maintenance performed;
- Description of actions taken during malfunction to minimize emissions;
- Description of corrective actions;
- List of maintenance conducted to demonstrate that RICE was operated and maintained in accordance with the maintenance plan/manufacturer's recommendations;
- The hours of operation as monitored by the non-resettable hour meter; and
- Description of purpose of operation hours spent.

Sources must report any failure to perform the work practices on the required schedule.

M. Gasoline Storage Tanks

1. Storage of Gasoline [35 IAC 219.122]

The loading of any organic material in any stationary tank having a storage capacity of greater than 946 liters (250 gallons) shall not be allowed, unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Agency according to the provisions of 35 IAC 201, and further processed consistent with 35 IAC 219.108, or unless such tank is a pressure tank as described in 35 IAC 219,121(a) or it fitted with a recovery system as described in 35 IAC 219.121(b)(2).

2. Gasoline Dispensing Operations [35 IAC 219.583]

The transfer of gasoline from any delivery vessel into the stationary storage tank at a gasoline dispensing operations shall not be allowed unless the tank is equipped with a submerged loading pipe.

3. Recordkeeping and Reporting [40 CFR 71.6(a)(3)]

Records retained for the storage tank include design information on the capacity of the tank and documents that confirm the presence of a permanent submerged loading pipe. In addition, an inspection, maintenance, and repair log or other records for the storage tank shall be maintained that, at a minimum, includes information related to any repair or replacement of the submerged loading pipe.

V. AIR EMISSIONS INFORMATION

A. Insignificant Air Emission Sources

This section identifies and describes the insignificant activities at the Veolia facility. The table below contains a list of the insignificant activities and the regulatory reference that exempts them from permitting requirements.

Insignificant Emission Units	
Insignificant Emission Units	**Regulatory Citation**
2.5 mmBtu/hr Tioga portable boiler	35 IAC 270 Section 201.210(a)(4)
Horizontal 550-gallon tank (Kerosene)	35 IAC 270 Section 201.210(a)(11)
Horizontal 550-gallon tank (No. 2 fuel oil)	35 IAC 270 Section 201.210(a)(11)
Horizontal 550-gallon tank (Gasoline)	35 IAC 270 Section 201.210(a)(11)
Horizontal 550-gallon tank (No. 2 fuel oil)	35 IAC 270 Section 201.210(a)(11)
Ash Handling	See Below Explanation
Handling of spent dry scrubber solids (DSS)	See Below Explanation
Lime unloading (silo) and proportioning	See Below Explanation
Gasoline storage and dispensing	See Below Explanation
Use of absorbent (fugitive particulate generation)	See Below Explanation
General Vehicle maintenance and servicing, assumed to include diesel fuel handling	35 IAC 270 Section 201.210(b)(4)
Laboratory (chemical and physical analysis)	35 IAC 270 Section 201.210(b)(11)
Piping and storage system for natural gas	35 IAC 270 Section 201.210(b)(15)
Non-halogenated cold cleaning degreasers	35 IAC 270 Section 201.210(b)(19)
Internal combustion engines of motor vehicles (primarily forklifts)	35 IAC 270 Section 201.210(b)(24)
Storage and handling of closed drums	35 IAC 270 Section 201.210(b)(26)

The ash handling, handling of spent dry scrubber solids (DSS), lime unloading (silo) and proportioning, gasoline storage and dispensing, and use of absorbent (fugitive particulate generation) do not emit more than 1.0 lb/hr of any regulated air pollutant not listed as hazardous pursuant to Section 112(b) of the CAA in the absence of air pollution control equipment. They do not emit more than 0.1 lb/hr of any regulated air pollutant that is listed as hazardous pursuant to Section 112(b) of the CAA in the absence of air pollution control equipment; and none are process units.

B. List of Air Emission Sources with Regulatory Requirements

Unit Name	Unit Description
Incineration Unit 2	Fixed Hearth Incineration Unit used in the destruction of hazardous waste
Incineration Unit 3	Fixed Hearth Incineration Unit used in the destruction of hazardous waste
Incineration Unit 4	Rotary Kiln Incinerator (Transportable) used in the destruction of hazardous waste
Material Processing Area 1	Material processing/repackaging, repackaging of containerized solid waste
Material Processing Area 2	Material processing/repackaging, repackaging of containerized solid waste
Lab Pack Repack	Material processing/repackaging, repackaging of Lab Packs
Drum Crusher	Drums are crushed
Bulk Feed Building	Temporary storage of bulk solid wastes before being feed to Unit 4
Boiler 1	Steam Boiler used for steam generation at plant
Tank #2	4,931-gallon tank used for the storage of liquid waste
Tank #4	4,931-gallon tank used for the storage of liquid waste
Tank #6	7,200-gallon tank used for the storage of liquid waste
Tank #8	5,820-gallon tank used for the storage of liquid waste
Tank #10	12,869-gallon tank used for the storage of liquid waste
Tank #20	12,869-gallon tank used for the storage of liquid waste
Tank #30	12,869-gallon tank used for the storage of liquid waste
Tank #40	12,869-gallon tank used for the storage of liquid waste
Tank #50	12,869-gallon tank used for the storage of liquid waste
Tank #60	12,869-gallon tank used for the storage of liquid waste
Tank #300	19,850-gallon tank used for the storage of liquid waste
Tank #302	30,000-gallon tank used for the storage of liquid waste
Tank #304	30,000-gallon tank used for the storage of liquid waste
Tank #306	30,000-gallon tank used for the storage of liquid waste
Tank #308	30,000-gallon tank used for the storage of liquid waste
Tank #310	30,000-gallon tank used for the storage of liquid waste
Tank #312	10,000-gallon tank used for the storage of liquid waste
Tank #314	10,000-gallon tank used for the storage of liquid waste
Tank #390	30,000-gallon tank used for storage of No. 2 Diesel Fuel

C. Emission Calculations

The following are the emission calculations for all the significant sources at the plant.

1. Unit 2 Incineration

The actual emissions and potential emissions for Unit 2 are presented in the following table. The basis for each of the emission rates is provided also. The potential to emit (PTE) was calculated using emission testing information, permit limits, and emission limitations in regulatory standards and 8,760 hours of operation.

Unit 2 Emissions Summary					
Pollutant	**Actual Emission Rate (lbs/hr)**	**Basis of Actual Emission Rate**	**PTE (Lbs/hr)**	**PTE (tons/yr)**	**PTE Basis**
PM	0.0640	12/2009 CPT	0.5775	2.53	Based on HWCMACT Limit, 0.013 gr/dscf
PM_{10}	0.0640	Same as PM	0.5775	2.53	Based on HWCMACT Limit, 0.013 gr/dscf
$PM_{2.5}$	0.0640	Same as PM	0.5775	2.53	Based on HWCMACT Limit, 0.013 gr/dscf
HCl/Cl_2	0.5612	12/2009 CPT	0.9117	3.99	Based on HWCMACT Limit, 32 ppmv
NO_X	2.51	2007 stack test	Not available	4.0	Construction permit #88010001
CO	0.045	CEMS	2.31	6.6	Based on HWCMACT Limit, 100 ppmv Construction permit #87100024
VOM	0.43	Max Feed & DRE	8.0	0.9	Construction permit #87100024
SO_2	4.00	0.1% Total Feed	Not available	7.7	Construction permit #87100024
Hg	0.0008	8/2008 CPT	0.0026	0.0114	Based on HWCMACT Limit, 130 ug/m^3
As	0.00002	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Be	0.0000017	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Cd	0.000022	9/2008 CPT	0.0046	0.0202	Based on HWCMACT Limit, 230 ug/m^3
Cr	0.000069	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Sb	0.00000342	6/2002 stack test	0.00000342	0.000015	6/2002 stack test
Pb	0.00028	9/2008 CPT	0.0046	0.0202	Based on HWCMACT Limit, 230 ug/m^3
Ni	0.00000446	6/2002 stack test	0.00000446	0.000020	6/2002 stack test
Se	0.00000854	6/2002 stack test	0.00000854	0.000037	6/2002 stack test
Dioxin/Furan ng TEQ 7% O_2	0.00178	6/2012 Conf. Test	4.38×10^{-9}	1.92×10^{-8}	Based on HWCMACT Limit, 0.20 ng/dscm TEQ

2. Unit 3 Incineration

The actual emissions and potential emissions for Unit 3 are presented in the following table. The basis for each of the emission rates is provided also. The PTE was calculated using emission testing information, permit limits, and emission limitations in regulatory standards and 8,760 hours of operation.

Unit 3 Emissions Summary					
Pollutant	**Actual Emission Rate (lbs/hr)**	**Basis of Actual Emission Rate**	**PTE (Lbs/hr)**	**PTE (tons/yr)**	**PTE Basis**
PM	0.0708	12/2009 CPT	0.5775	2.53	Based on HWCMACT Limit, 0.013 gr/dscf
PM_{10}	0.0708	Same as PM	0.5775	2. 53	Based on HWCMACT Limit, 0.013 gr/dscf
$PM_{2.5}$	0.0708	Same as PM	0.5775	2.53	Based on HWCMACT Limit, 0.013 gr/dscf
HCl/Cl_2	0.3989	12/2009 CPT	0.9340	4.09	Based on HWCMACT Limit, 32 ppmv
NO_X	2.51	2007 stack test	Not available	4.0	Construction permit #88010001
CO	0.0250	CEMS	2.31	6.6	Based on HWCMACT Limit, 100 ppmv Construction permit #87100024
VOM	0.43	Max Feed & DRE	8.0	0.9	Construction permit #87100024
SO_2	4.00	0.1% Total Feed	Not available	7.7	Construction permit #87100024
Hg	0.0008	8/2008 CPT	0.0026	0.0114	Based on HWCMACT Limit, 130 ug/m^3
As	0.00002	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Be	0.0000019	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Cd	0.0000054	9/2008 CPT	0.0046	0.0202	Based on HWCMACT Limit, 230 ug/m^3
Cr	0.000278	9/2008 CPT	0.0018	0.0081	Based on HWCMACT Limit, 92 ug/m^3
Sb	0.00000342	6/2002 stack test	0.00000342	0.000015	6/2002 stack test
Pb	0.000824	9/2008 CPT	0.0046	0.0202	Based on HWCMACT Limit, 230 ug/m^3
Ni	0.00000446	6/2002 stack test	0.00000446	0.000020	6/2002 stack test
Se	0.00000854	6/2002 stack test	0.00000854	0.000037	6/2002 stack test
Dioxin/Furan ng TEQ 7% O2	0.00068	6/2012 Conf. Test	4.56×10^{-9}	2.00×10^{-8}	Based on HWCMACT Limit, 0.20 ng/dscm TEQ

3. Unit 4 Incineration

The actual emissions and potential emissions for Unit 4 are presented in the following table. The basis for each of the emission rates is provided also. The potential to emit (PTE) was calculated using emission testing information, permit limits, and emission limitations in regulatory standards and 8,760 hours of operation.

Unit 4 Emissions Summary					
Pollutant	**Actual Emission Rate (lbs/hr)**	**Basis of Actual Emission Rate**	**PTE (Lbs/hr)**	**PTE (tons/yr)**	**PTE Basis**
PM	0.4416	12/2009 CPT	1.63	7.15	Based on HWCMACT Limit, 0.013 gr/dscf
PM_{10}	0.4416	Same as PM	1.63	7.15	Based on HWCMACT Limit, 0.013 gr/dscf
$PM_{2.5}$	0.4416	Same as PM	1.63	7.15	Based on HWCMACT Limit, 0.013 gr/dscf
HCl/Cl_2	2.34	12/2009 CPT	2.64	11.57	Based on HWCMACT Limit, 32 ppmv
NO_X	9.14	2007 stack test	Not available	61.6	Construction permit #88010001
CO	0.115	CEMS	6.52	13.86	Based on HWCMACT Limit, 100 ppmv Construction permit #88010001
VOM	1.48	Max Feed & DRE	8.0	3.1	Construction permit #88010001
SO_2	3.69	0.1% Total Feed	Not available	50.76	Construction permit #88010001
Hg	0.0012	8/2008 CPT	0.0073	0.0319	Based on HWCMACT Limit, 130 ug/m^3
As	0.00026	9/2008 CPT	0.0052	0.0226	Based on HWCMACT Limit, 92 ug/m^3
Be	0.0000051	9/2008 CPT	0.0052	0.0226	Based on HWCMACT Limit, 92 ug/m^3
Cd	0.0000287	9/2008 CPT	0.0129	0.0564	Based on HWCMACT Limit, 230 ug/m^3
Cr	0.000135	9/2008 CPT	0.0052	0.0226	Based on HWCMACT Limit, 92 ug/m^3
Sb	0.0000111	2/2002 stack test	0.0000111	0.0000486	6/2002 stack test
Pb	0.00109	9/2008 CPT	0.0129	0.0564	Based on HWCMACT Limit, 230 ug/m^3
Ni	0.0000110	2/2002 stack test	0.0000110	0.0000482	6/2002 stack test
Se	0.0000277	2/2002 stack test	0.0000277	0.000121	6/2002 stack test
Dioxin/Furan ng TEQ 7% O2	0.195	6/2012 Conf. Test	1.38×10^{-8}	6.05×10^{-8}	Based on HWCMACT Limit, 0.20 ng/dscm TEQ

4. Existing Boiler

All boiler emission factors are taken from the AP-42 - Section 1.4 Natural Gas Combustion. Actual emissions are based on natural gas burned in 2012. PTE is based on maximum hourly heat input into the boiler and 8,760 hours per year of operation. The table below contains all emission factors and emission rates.

Existing Boiler Emissions Summary				
Maximum Hourly Heat Input: 10.6 MMBtu/hr (90.15 mmscf/hr)				
Actual Natural Gas Usage 2012: 86.83 mmscf/yr				
Pollutant	**Emission Factor (lb/mmscf)**	**Actual Emissions (tons/yr)**	**PTE (lb/hr)**	**PTE (tons/yr)**
CO	84	3.65	0.864	3.79
VOM	5.5	0.239	0.057	0.248
NO_X	100	4.34	1.03	4.51
$PM_{2.5}$	7.6	0.330	0.078	0.343
PM_{10}	7.6	0.330	0.078	0.343
PM	7.6	0.330	0.078	0.343
SO_2	0.6	0.026	0.006	0.027
NH_3	3.2	0.139	0.033	0.144

5. Lab Pack Repack Building (LPR)

The LPR building emission factor is based on exposure monitoring data collected in the area during normal operations. This emission factor is multiplied by the hours of operation in 2012 to give an estimate of the actual emission rate and multiplied by 8,760 hours per year of operation to give the potential to emit.

VOM Actual Emission = 0.3321 (lbs/hr) x 6440 (hrs) / 2000 = 1.07 tons/year

VOM PTE = 0.3321 (lbs/hr) x 8760 (hrs) / 2000 = 1.45 tons/year

Benzene Actual Emission = 0.0552 (lbs/hr) x 6440 (hrs) / 2000 = 0.1777 tons/year

Benzene PTE = 0.0552 (lbs/hr) x 8760 (hrs) / 2000 = 0.2418 tons/year

6. Material Processing Area 1 (MP-1)

The MP-1 building emission factor is based on exposure monitoring data collected in the operations area during normal operations. This emission factor is multiplied by the hours of operation in 2012 to give an estimate of the actual emission rate and multiplied by 8,760 hours per year of operation to give the PTE.

VOM Actual Emission = 0.0545 (lbs/hr) x 7310 (hrs) / 2000 = 0.1992 tons/year

VOM PTE = 0.0545 (lbs/hr) x 8760 (hrs) / 2000 = 0.2387 tons/year

Benzene Actual Emission = 0.0113 (lbs/hr) x 7310 (hrs) / 2000 = 0.0413 tons/year

Benzene PTE = 0.0113 (lbs/hr) x 8760 (hrs) / 2000 = 0.0495 tons/year

7. Material Processing Area 2 (MP-2)

The MP-2 building emission factor is based on exposure monitoring data collected in the operations area during normal operations. This emission factor is multiplied by the hours of operation in 2012 to give an estimate of the actual emission rate and multiplied by 8,760 hours per year of operation to give the PTE.

VOM Actual Emission = 0.0545 (lbs/hr) x 5230 (hrs) / 2000 = 0.1425 tons/year

VOM PTE = 0.0545 (lbs/hr) x 8760 (hrs) / 2000 = 0.2387 tons/year

Benzene Actual Emission = 0.0113 (lbs/hr) x 5230 (hrs) / 2000 = 0.0295 tons/year

Benzene PTE = 0.0113 (lbs/hr) x 8760 (hrs) / 2000 = 0.0495 tons/year

8. Bulk Solids Storage

The bulk solids storage building emission factor is based on monitoring data collected in the storage and handling area. This emission factor is multiplied by the hours of operation in 2012 to give an estimate of the actual emission rate and multiplied by 8,760 hours per year of operation to give the PTE.

VOM Actual Emission = 0.5836 (lbs/hr) x 8760 (hrs) / 2000 = 2.56 tons/year

VOM PTE = 0.5836 (lbs/hr) x 8760 (hrs) / 2000 = 2.56 tons/year

Benzene Actual Emission = 0.0043 (lbs/hr) x 8760 (hrs) / 2000 = 0.0188 tons/year

Benzene PTE = 0.0043 (lbs/hr) x 8760 (hrs) / 2000 = 0.0188 tons/year

9. Drum Crusher

Actual Emissions

Emissions – Volatile Organic Material (VOM)

Basis:
Veolia has collected data for the five years since the permit was issued including: the number of containers crushed, the type of volatile constituents likely to be in container residue, and the amount of these volatile constituents processed on an annual basis. A new VOM emission factor was calculated utilizing this data from actual operations. The container residue was characterized as containing the top organics at their overall concentrations in the waste received in 2007 – 2011. The remainder of the waste was represented as water and inert solids. This approach yielded a VOM emission factor of 0.0221 pounds VOM per drum crushed. With a maximum crushing rate of 40 drums per hour, the PTE for the drum crusher was

calculated to be 0.8833 pounds VOM per hour and 3.87 tons VOM per year. The detailed calculations are provided below.

Drums crushed per year = 350,400 (40 drums /hour, 8,760 hours/year

VOM Emission Factor Calculation for Drum Crusher

Emission Factor = Summation of Pounds VOM from **Column I** below

= 0.0221 pounds per drum

Maximum rate of crushing = 40 drums per hour

Maximum VOM emission rate = 0.0221 x 40 = 0.8833 pounds VOM per hour

Maximum annual VOM rate = 0.8833 x 179 / 2,000 = 0.0790 tons VOM per year

Vessel Contents Analysis Vessel volume (ft3) = 7.3524 R = 998.9 (mmHg)(ft3)/(lbmole)(K)

Assumptions:

1. Each container contents is uniformly representative of the overall waste mixture received at the plant.
2. The overall waste mixture at the plant is characterized by the top organic constituents in waste received for 2007 - 2011.

A	B	C	D	E	F	G	H	I	J
VOC	MW (lb/lbmole)	Weight (lbs)	lbmoles	Xi	Psati	pi	Vapor (lbmoles)	Vapor (lbs)	Comments
acetonitrile	41.05	3,361,228	81,881	0.0100	86.37	0.86	0.00002	0.00087	
acrylonitrile	53.1	804,316	15,147	0.0018	105.83	0.20	4.83E-06	0.00026	
atrazine	215.68	356,148	1,651	0.0002	0.00	0.00	1.44E-15	3.10E-13	
cyanide compounds	27.03	138,879	5,138	0.0006	1.00	0.00	1.55E-08	4.19E-07	
ethylbenzene	106.17	633,274	5,965	0.0007	9.51	0.01	1.71E-07	0.00002	
hydrazine	32.05	180,238	5,624	0.0007	10.00	0.01	1.69E-07	0.00001	
methanol	32.04	6,070,501	189,466	0.0231	126.94	2.93	0.00007	0.00232	
methyl isobutyl ketone	100.16	3,042,483	30,376	0.0037	19.28	0.07	1.77E-06	0.00018	
methyl tert-butyl ether	88.15	405,413	4,599	0.0006	273.71	0.15	3.79E-06	0.00033	
n-butyl alcohol	74.12	1,503,986	20,291	0.0025	6.16	0.02	3.77E-07	0.00003	
n-hexane	86.18	747,614	8,675	0.0011	151.54	0.16	3.96E-06	0.00034	
nitrate compounds	84.99	181,239	2,132	0.0003	0.00	0.00	0.00E+00	0.00E+00	None in vapor
pthalic anhydride	148.1	154,635	1,044	0.0001	0.00	0.00	0.00E+00	0.00E+00	None in vapor
pyridine	79.1	169,554	2,144	0.0003	45.09	0.01	2.91E-07	0.00002	
styrene	104.15	1,915,487	18,392	0.0022	6.18	0.01	3.43E-07	0.00004	
toluene	92.13	8,657,468	93,970	0.0115	28.44	0.33	0.00001	0.00074	
triethylamine	101.2	850,752	8,407	0.0010	67.78	0.07	1.72E-06	0.00017	
xylene	106.17	2,328,688	21,934	0.0027	8.30	0.02	5.49E-07	0.00006	
as ethanol	46.07	93,612,150	2,031,955	0.2479	59.16	14.67	0.00036	0.01669	Avg volatility for smaller amounts VOM in waste
as water	18.02	93,612,150	5,194,903	0.6339	23.69	15.01	0.00037	0.00668	
solids (as lead)	207.2	93,612,150	451,796	0.0551					None in vapor

Potential-To-Emit (PTE)

Emissions – Volatile Organic Material (VOM)

VOM Emission Factor Calculation for Drum Crusher

Emission Factor = Summation of Pounds VOM from **Column I**

= 0.0221 pounds per drum

Maximum rate of crushing = 40 drums per hour

Maximum VOM emission rate = 0.0221 x 40 = 0.8833 pounds VOM per hour

Maximum annual VOM rate = 0.8833 x 8,760 / 2,000 = 3.87 tons VOM per year

PTE VOM emissions from drum crushing operations = 3.87 ton VOM/yr

10. Tanks

All the tanks emit both VOM and benzene. The actual VOM emissions are those reported in the Annual Air Emissions Report for 2012. The VOM and benzene PTEs were calculated from the emission factor determined using 2012 emission rates and throughputs. The emission factor was then multiplied times the maximum hourly throughput to yield the potential VOM emissions in pounds per hour; and then converted to tons per year using 8,760 hours per year.

Tank Emissions Summary						
Tank Number	**Pollutant**	**Actual Emissions 2012 (lb/yr)**	**2012 Throughput (10^3 gals/yr)**	**Emission Factor (lbs/10^3 gals)**	**PTE (Lb/hr)**	**PTE (Ton/yr)**
Tank #2	VOM	1.58	602	0.0026	0.0052	0.0230
	Benzene	0.0015		2.49E-06	4.98E-06	2.18E-05
Tank #4	VOM	1.73	602	0.0029	0.0057	0.0252
	Benzene	0.017		2.82E-05	5.65E-05	2.47E-04
Tank #6	VOM	2.76	3061	0.0009	0.0018	0.0079
	Benzene	0.0027		8.82E-07	1.76E-06	7.73E-06
Tank #8	VOM	2.81	2461	0.0011	0.0023	0.0100
	Benzene	0.0027		1.10E-06	2.19E-06	9.61E-06
Tank #10	VOM	10.68	500	0.0214	0.0427	0.1871
	Benzene	0.0104		2.08E-05	4.16E-05	1.82E-04
Tank #20	VOM	1.12	310	0.0036	0.0072	0.0316
	Benzene	0.0011		3.55E-06	7.10E-06	3.11E-05
Tank #30	VOM	2.33	79	0.0295	0.0590	0.2584
	Benzene	0.0023		2.91E-05	5.82E-05	2.55E-04

Tank Emissions Summary						
Tank Number	**Pollutant**	**Actual Emissions 2012 (lb/yr)**	**2012 Throughput (10^3 gals/yr)**	**Emission Factor (lbs/10^3 gals)**	**PTE (Lb/hr)**	**PTE (Ton/yr)**
Tank #40	VOM	2.42	657	0.0037	0.0074	0.0323
	Benzene	0.0023		3.50E-06	7.00E-06	3.07E-05
Tank #50	VOM	0.7650	764	0.0010	0.0020	0.0088
	Benzene	0.0007		9.46E-07	1.83E-06	8.03E-06
Tank #60	VOM	5.55	950	0.0058	0.0117	0.0512
	Benzene	0.0054		5.68E-06	1.14E-05	4.98E-05
Tank #300	VOM	1.90	580	0.0033	0.0066	0.0287
	Benzene	0.0018		3.10E-06	6.21E-06	2.71E -05
Tank #302	VOM	11.74	543	0.0216	0.0432	0.1894
	Benzene	0.0114		2.10E-05	4.20E-05	1.84E-04
Tank #304	VOM	2.81	434	0.0065	0.0130	0.0567
	Benzene	0.0027		6.22E-06	1.24E-05	5.45E-05
Tank #306	VOM	5.28	466	0.0113	0.0227	0.0993
	Benzene	0.0051		1.09E-05	2.19E-05	9.59E-05
Tank #308	VOM	8.99	355	0.0253	0.0506	0.2218
	Benzene	0.0087		2.45E-05	4.90E-05	2.15E-04
Tank #310	VOM	8.27	282	0.0293	0.0587	0.2569
	Benzene	0.0080		2.84E-05	5.67E-05	2.48E-04
Tank #312	VOM	7.71	192	0.0402	0.0803	0.3517
	Benzene	0.0075		3.91E-05	7.81E-05	3.42E-04
Tank #314	VOM	4.64	192	0.0242	0.0483	0.2117
	Benzene	0.0045		2.34E-05	4.69E-05	2.05E-04

VI. COMPLIANCE METHODS

A. Continuous Emission Monitors

The continuous emissions monitoring (CEM) system consists of sample probes, sample delivery and conditioning apparatus, and gas analyzers. Each incinerator is equipped with a CEMS, which consists of the following major components:

- Heated stack sample probe
- Heated traced umbilical
- Heated sample pump
- EcoChem MC3 multicomponent infrared (IR) gas analyzer
- Zirconium oxide-based oxygen analyzer
- System controller and data acquisition system

Samples are extracted from the stack at Units 2 and 3 and the transition ducting located between the scrubber and stack at Unit 4. The Continuous Emission Monitoring System Quality Assurance

Plan contains detailed information about the operation and maintenance of the CEM systems at the facility. A copy of the most current plan is provided in Appendix D. Responses from each CEMS are fed to the Control System (CS). The system controller controls the sampling system temperatures, purge/blowback, calibration checks, data handling, messaging, and alarms. The CEMS controller is integrated with the incinerator data acquisition system, automatic waste feed cutoff (AWFCO) system and the main control system.

B. Process Parameter Monitoring

Veolia monitors a number of process parameters for the purpose of demonstrating on-going compliance with regulatory requirements and permit conditions. Continuous monitoring devices equipped with data logging allow Veolia to calculate, record, and view values for process parameters that are regulated. Operation, maintenance, and data handling procedures are described in the Continuous Monitoring System Quality Control Program. A copy of the most recent program is provided in Appendix D. Descriptions of the parameters monitored and the instrumentation used is provided below.

1. Mass/Feedrate Monitors

Liquid waste feedrates from tanks are measured by coriolis mass flowmeters. Direct inject liquid feedrates from the tanker truck are calculated using the continuously monitored weight of the tanker. All solid waste charges are weighed using a scale/load cell prior to being fed to the incinerator. These measurements are used to calculate pumpable waste, total waste, and constituent feedrates.

For Unit 4, the output of a calibrated feeder is utilized to calculate the feedrate of powdered activated carbon, which is injected into the plenum upstream of the baghouses.

2. Pressure/Differential Pressure Monitors

Primary combustion chamber pressure is measured by diaphragm-actuated pressure transmitters. The position of the damper immediately upstream of the induced-draft fan is varied to control stack gas flowrate and to maintain kiln combustion chamber negative pressure (draft). The primary combustion chamber pressure is interlocked with waste feeds.

For Units 2 and 3, pressure drop in the cylinder gas feedstream is measured and converted to a feedrate. The feedrate is used to calculate this feedstream's contribution to the chlorine, low-volatile metals, and semi-volatile metals feedrates to the incinerator.

For Unit 4, pressure switches are utilized to ensure that the carbon feeder discharge pressure and the carbon injection air blower discharge pressure are within the design limits.

The pressure drop across a pitot tube in the stack is continuously monitored and used to calculate the stack gas flowrate.

3. Temperature Monitors

For Units 2 and 3, redundant thermocouples are used to measure the temperature in both combustion chambers. A thermocouple is also located at the exit to the SDA and is the primary element for the SDA exit temperature control loop.

Unit 4 is equipped with redundant pyrometers in the primary chamber and redundant thermocouples in the secondary chamber. Each SDA outlet is equipped with redundant thermocouples used for temperature control and monitoring of the baghouse inlet temperature.

4. Emergency Safety Vent Position Monitors

The position of the emergency safety vent is indicated as open or closed by a position transmitter. No waste or fuel can be fed if the emergency safety vent position is "open." The Emergency Safety Vent Plan provides details on the emergency safety vent systems.

5. Bag Leak Detection System

A triboelectric sensor is located downstream of the induced draft fan that monitors the relative particulate matter loading of the combustion gas exiting the baghouses. Alarms and interlocks based on this relative measurement are indications of a potential bag leak or failure. Procedures for setup and adjustments to the bag leak detection system are not covered by this quality control program. The Operation and Maintenance Plan provides details on the bag leak detection system.

C. Demonstration of Compliance with Applicable Requirements

The methods for demonstrating compliance with the applicable requirements identified in Section IV of this application are described in the following table.

EMISSION UNIT ID(S)	APPLICATION REFERENCE FOR APPLICABLE REQUIRMENT	CITATION	COMPLIANCE METHOD
Hazardous Waste Combustors: Emission Standard Requirements			
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.1.a	35 IAC 212.123(a)	Monitoring/Recordkeeping - Continuous opacity monitors and recording devices.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.1.b	35 IAC 212.301	Work Practices - Standard operations at the facility are designed to avoid the generation of fugitive particulate emissions. Surfaces are paved and kept free of material that could generate particulate. Material handling operations are enclosed processes designed to minimize particulate emissions to the atmosphere.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.2.a	Construction Permits #87100024 and #88010001	Recordkeeping - Emissions are calculated on an annual basis using test results, monitoring data, engineering calculations and standard emission factors. Records of these calculations are maintained onsite.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.3.a	40 CFR 63.1219(a)(5)	Monitoring/Recordkeeping - Continuous emission monitor and recording device.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.3.b	Construction Permits #83120053, #87100024 and #88010001	Monitoring/Recordkeeping - Continuous emission monitor and recording device.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.3.c	Construction Permits #87100024 and #88010001	Recordkeeping - Emissions are calculated on an annual basis using test results, monitoring data, engineering calculations and standard emission factors. Records of these calculations are maintained onsite.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.4.a	35 IAC 212.181(b)	Testing/Monitoring/Recordkeeping - Compliance with NESHAP for Hazardous Waste Combustors as referenced in Section B.4.b below.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.4.b	40 CFR 63.1219(a)(7)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.4.c	Construction Permits #87100024 and #88010001	Recordkeeping - Emissions are calculated on an annual basis using test results, monitoring data, engineering calculations and standard emission factors. Records of these calculations are maintained onsite.
ncinerators: Jnit 2, Unit 3, Unit 4	Section IV.B.5.a	35 IAC 219.301 and 219.302	Testing/Monitoring/Recordkeeping - Compliance with NESHAP for Hazardous Waste Combustors DRE requirement of at least 99.99% destruction provides for compliance with this requirement.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.5.b	Construction Permits #87100024 and #88010001	Recordkeeping - Emissions are calculated on an annual basis using test results, monitoring data, engineering calculations and standard emission factors. Records of these calculations are maintained onsite.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.6.a	Construction Permits #87100024 and #88010001	Recordkeeping - Emissions are calculated on an annual basis using test results, monitoring data, engineering calculations and standard emission factors. Records of these calculations are maintained onsite.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.a	40 CFR 63.1219(a)(1)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.b	40 CFR 63.1219(a)(2)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.c	40 CFR 63.1219(a)(3)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.d	40 CFR 63.1219(a)(4)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.e	40 CFR 61.348(a)(1)(iii)	Testing/Monitoring/Recordkeeping - Compliance with NESHAP for Hazardous Waste Combustors DRE requirement of at least 99.99% destruction provides for compliance with this requirement.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.7.f	40 CFR 63.689(c)(2)	The design of all transfer systems subject to this rule calls for welded joints for continuous hardpiping.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.8.a	40 CFR 63.1219(a)(6)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.8.b	Construction Permits #83120053 and #87100024	Testing/Monitoring/Recordkeeping - Compliance with NESHAP for Hazardous Waste Combustors HCl emissions limitations provides for compliance with this requirement.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.9.a	40 CFR 63.1219(c)(1)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).

EMISSION UNIT ID(S)	APPLICATION REFERENCE FOR APPLICABLE REQUIRMENT	CITATION	COMPLIANCE METHOD
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.9.b	40 CFR 63.1219(c)(2)	Recordkeeping - The facility does not accept dioxin-listed hazardous waste in their waste streams for combustion.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.B.9.c	40 CFR 63.1219(c)(3)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Hazardous Waste Combustors: Work Practice and Operational Requirements			
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.a	40 CFR 63.1206(a)&(b), 63.1209(j) through (p)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E). NOC submittal to agency.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.b	40 CFR 63.1206(c)(1), 63.1211(c)	Recordkeeping - a Documentation of Compliance (DOC) has been developed and is maintained in the facility operating record.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.c	40 CFR 63.1206(c)(2), 63.6(e)(3)	SSMP developed, implemented and maintained in accordance with 40 CFR 63.6 and 63.1206(c)(2).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.d	40 CFR 63.1206(c)(3) 35 IAC 201.149	AWFCO system in operation for all three incinerators. Hazardous waste feed is shutoff according to procedures specified in the faciilty's Automatic Waste Feed Cutoff Plan.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.e	40 CFR 63.1206(c)(4)	ESV operating plan developed, implemented and is maintained in the operating record of the facility.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.f	40 CFR 63.1206(c)(5)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.g	40 CFR 63.1206(c)(6)	Training Program and Operator Certification Program developed, implemented and is maintained. Records of training and operator certification retained on site.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.C.1.h	40 CFR 63.1206(c)(7), 63.6(e)	An Operation and Maintenance Plan has been developed, implemented and maintained in the operating records on site.
Hazardous Waste Combustors: Monitoring and Testing Requirements			
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.1.a	40 CFR 63.1209(a)(1)(i)	Continuous CO monitor and data acquisition system (DAS). THC testing during CPT.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.1.b	40 CFR 63.1209(a)(1)(iii)	Will install and operate continuous PM CEMS when required.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.1.c	40 CFR 63.1209(a)(2), (a)(3) and (a)(4)	CEMS and COMs installed, calibrated, maintained and continuously operated in accordance with the performance specifications in this rule. CEMS & COMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.1.d	40 CFR 63.1209(a)(5), 63.8(f)	Not applicable.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.1.e	40 CFR 63.1209(a)(6)	Rolling averages from CEMS, COMS data are calculated by the DAS in accordance with this requirement.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.2.a	40 CFR 63.1209(b)(1), (b)(2)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.2.b	40 CFR 63.1209(b)(3)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.2.c	40 CFR 63.1209(b)(4)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.2.d	40 CFR 63.1209(b)(5)	Rolling averages from CMS data are calculated by the DAS in accordance with this requirement.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.3	40 CFR 63.1206(c)(8)	BLDS installed, maintained and continuously operated. CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.4	40 CFR 63.1209(c)	FAP developed, implemented and maintained to reflect these requirements.

EMISSION UNIT ID(S)	APPLICATION REFERENCE FOR APPLICABLE REQUIRMENT	CITATION	COMPLIANCE METHOD
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.5	40 CFR 63.1209(d), 63.8(d), 6..8(e)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.6	40 CFR 63.1209(e), 63.8(b)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.7	40 CFR 63.1209(f), 63.8(c)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.8	40 CFR 63.1209(h), 63.8(g)	CMS installed, calibrated, maintained and continuously operated as described in most recent NOC (Appendix E). CMS QA/QC Plan developed, implemented and maintained to reflect these requirements.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.9	40 CFR 63.1209(i), 63.8(b)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E). NOC submittal to agency.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.D.10	40 CFR 63.1209(r)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E). NOC submittal to agency.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.1	40 CFR 63.1206(b)(5)(i)(B)	Changes to a source are evaluated during planning. A new CPT will be performed and NOC submitted if indicated.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.2	40 CFR 63.1206(b)(6)	Testing/Monitoring/Recordkeeping - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.3	40 CFR 63.1207(b)	Testing - CPT to establish OPLs as provided in most recent NOC (Appendix E). Confirmatory testing conducted for dioxin/furan standard as provided in most recent NOC.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.4	40 CFR 63.1207(d)	Testing - CPT to establish OPLs as provided in most recent NOC (Appendix E). Confirmatory testing conducted for dioxin/furan standard as provided in most recent NOC.
ıcinerators: Jnit 2, Unit 3, Unit 4	Section IV.E.5.a	40 CFR 63.1207(f)(1), 63.7(c)(2)	CPT plans submitted for approval prior to test with contents as described in regulations.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.5.b	40 CFR 63.1207(f)(2), 63.7(c)(2)	Confirmatory test plans submitted for approval prior to test with contents as described in regulations.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.6.a	40 CFR 63.1207(g)(a), 63.7(e)	Testing - CPT to establish OPLs as provided in most recent NOC (Appendix E).
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.6.b	40 CFR 63.1207(g)(b), 63.7(e)	Confirmatory testing conducted for dioxin/furan standard as provided in most recent NOC.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.7	40 CFR 63.1207(h)	Performance test plans submitted for approval prior to test.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.8	40 CFR 63.1208	Performance test plans submitted for approval prior to test using prescribed test methods.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.9.a	40 CFR 63.1207(l)(1)	Procedures will be followed for hazardous waste burning if failure to demonstrate compliance occurs.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.9.b	40 CFR 63.1207(l)(2)	Procedures will be followed for hazardous waste burning if failure to demonstrate compliance occurs.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.E.9.c	40 CFR 63.1207(l)(2)	Procedures will be followed for hazardous waste burning if failure to demonstrate compliance occurs.
Hazardous Waste Combustors: Recordkeeping and Reporting Requirements			
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.F.1	40 CFR 63.1210(a)	Notifications will be submitted as required.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.F.2	40 CFR 63.1211(a)	Reports will be prepared and submitted as required.
Incinerators: Unit 2, Unit 3, Unit 4	Section IV.F.3	40 CFR 63.1211(b)	Records required by the regulations, by the plans utilized at the facility and by standard operating procedures will be retained on site for at least five years.

EMISSION UNIT ID(S)	APPLICATION REFERENCE FOR APPLICABLE REQUIRMENT	CITATION	COMPLIANCE METHOD
Waste Procesing Units: Requirements			
Waste Processing: MP-1, MP-2, LPR	Section IV.G.1	35 IAC 212.123(a)	Monitoring/Recordkeeping - Routine visible emissions observations.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.2	35 IAC 219.301	Recordkeeping - VOM emission rate calculations.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.3	40 CFR 63.683(b)(1)(i), 63.688(a)	Veolia controls air emissions from containers in accordance with Container Level 1 requirements.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.4	40 CFR 63.922	Veolia controls air emissions from containers in accordance with Container Level 1 requirements and facility SOPs.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.5	40 CFR 63.925, 71.6(a)(3)(i)(A)	Veolia controls air emissions from containers in accordance with Container Level 1 requirements and facility SOPs.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.6	40 CFR 71.6(a)(3)	Veolia controls air emissions from containers in accordance with Container Level 1 requirements and facility SOPs.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.7	40 CFR 61 Subpart FF	Standard work practices as reflected in SOPs are followed for containers of benzene-containing waste.
Waste Processing: MP-1, MP-2, LPR	Section IV.G.8	40 CFR 71.6(a)(3)(i)(B)	VOM/HAP emission calculations performed and recorded using TANKS program.
Liquid Waste Storage Tanks: Requirements			
Liquid Waste Storage Tanks	Section IV.H.1	35 IAC 219.301	Recordkeeping - VOM emission rate calculations.
Liquid Waste Storage Tanks	Section IV.H.2	36 IAC 219.142	LDAR program including inspections, monitoring and corrective actions has been implemented.
Liquid Waste Storage Tanks	Section IV.H.3	40 CFR 60.112b	Closed vent system and control device installed and operated for Tanks 300, 302, 304, 306, 308 and 310.
Liquid Waste Storage Tanks	Section IV.H.4	40 CFR 63.115b(c), 35 IAC 219.122 and 219.129	Each tank is equipped with permanent submerged loading pipe and records are retained as to the design of the tank.
.iquid Waste Storage Tanks	Section IV.H.5	40 CFR 61 Subpart FF	Standard work practices as reflected in SOPs are followed for tanks.
Liquid Waste Storage Tanks	Section IV.H.6	40 CFR 63 Subpart DD	Standard work practices as reflected in SOPs are followed for tanks and equipment leaks.
Liquid Waste Storage Tanks	Section IV.H.7	40 CFR 71.6(a)(3)(i)(A) and (B)	Testing/monitoring/inspection of carbon adsorption system will be conducted.
Liquid Waste Storage Tanks	Section IV.H.8	41 CFR 71.6(a)(3)	Records will be retained on site for at least five years.
Liquid Waste Storage Tanks	Section IV.H.9	Construction Permit 88030001	VOM emission calculations performed and recorded.
Bulk Solid Waste Storage Facility: Requirements			
Bulk Feed Building	Section IV.I.1	35 IAC 212.321	PM emission calculations performed and recorded .
Bulk Feed Building	Section IV.I.2	35 IAC 219.301	Recordkeeping - VOM emission rate calculations.
Bulk Feed Building	Section IV.I.3	35 IAC 212.123(a)	Monitoring/Recordkeeping - Routine visible emissions observations.
Bulk Feed Building	Section IV.I.4	40 CFR 61 Subpart FF	Standard work practices as reflected in SOPs are followed for tanks. Monitoring/testing to verify operation as a Totally Enclosed Unit. Closed-vent system and control device installed and maintained.
Bulk Feed Building	Section IV.I.5	40 CFR 63 Subpart DD	Standard work practices as reflected in SOPs are followed for tanks and equipment leaks.
Bulk Feed Building	Section IV.I.6	40 CFR 71.6(a)(1)	SOPs for enclosed operation, negative pressure.
Bulk Feed Building	Section IV.I.7	40 CFR 71.6(a)(3)(i)(A) and (B)	Testing/monitoring/inspection of carbon adsorption system will be conducted. Routine visible emissions observations are performed and documented.
Bulk Feed Building	Section IV.I.8	40 CFR 71.6(a)(3)	Records will be retained on site for at least five years.
Drum Crusher: Requirements			
Drum Crusher	Section IV.J.1	35 IAC 219.301	Recordkeeping - VOM emission rate calculations.
Drum Crusher	Section IV.J.2	35 IAC 212.321	PM emission calculations performed and recorded.
Drum Crusher	Section IV.J.3	35 IAC 212.123(a)	Monitoring/Recordkeeping - Routine visible emissions observations.

EMISSION UNIT ID(S)	APPLICATION REFERENCE FOR APPLICABLE REQUIRMENT	CITATION	COMPLIANCE METHOD
Drum Crusher	SectionIV.J.4	40 CFR 71.6(a)(3)(i)(A) and (B)	Routine visible emissions observations are performed and documented.
Drum Crusher	SectionIV.J.5	40 CFR 71.6(a)(3)	Records will be retained on site for at least five years.
Boiler: Requirements			
Boiler	Section IV.K.1	35 IAC 216.121	Monitoring with CO CEMS and recordkeeping.
Boiler	Section IV.K.2	40 CFR Subpart Dc	Recordkeeping of fuel combusted.
Boiler	Section IV.K.3	35 IAC 212.123(a)	Monitoring/Recordkeeping - Routine visible emissions observations.
Boiler	Section IV.K.4	Construction permit 95080025	NOx, CO emission rate calculations for annual operating hours.
Boiler	Section IV.K.5	40 CFR 63.52	Monitoring with CO CEMS and recordkeeping.
Boiler	Section IV.K.6	40 CFR 63 Subpart DDDDD	Work practices for annual tune-up, one-time energy assessment, submission of NOC and annual compliance report.
Boiler	Section IV.K.7	40 CFR 71.6(a)(3)(i)(A) and (B)	Annual visible emissions tests are performed and documented.
Boiler	Section IV.K.8	40 CFR 71.6(a)(3)	Records will be retained on site for at least five years. A semiannual compliance report will be submitted.
Emergency Generators: Requirements			
Emergency Generators	Section IV.L.1	40 CFR 63 Subpart ZZZZ	Record of the hours of operation will be retained.
Emergency Generators	Section IV.L.2	40 CFR 63.6602	Work practice procedures for maintenance, inspection and idle operation will be followed.
Emergency Generators	Section IV.L.3	40 CFR 71.6(a)(3)	Records will be retained on site for at least five years. A semiannual compliance report will be submitted.
Gasoline Storage Tank: Requirements			
Gasoline Tank	Section IV.M.1	35 IAC 219.122	The tank is equipped with a submerged loading pipe.
Gasoline Tank	Section IV.M.2	35 IAC 219.583	The tank is equipped with a submerged loading pipe.
Gasoline Tank	Section IV.M.3	40 CFR 71.6(a)(3)	Records will be retained on site for at least five years.

VII. RECORDKEEPING AND REPORTING

Veolia monitors and records multiple operating parameters that are part of the operating record. The Continuous Emissions Monitoring System (CEMS) being utilized at incinerator Units 2, 3, and 4 includes measurement of the combustion gas oxygen, carbon monoxide, hydrocarbon, and hydrogen chloride concentrations; opacity; and gas velocity. The table below summarizes the analyzer specifications. If performance or stack tests are required to be conducted in the future, Veolia will record and report testing results as described in the appropriate test plan. Prior to any testing activities, instrumentation associated with key parameters of the test will be checked, calibrated, or replaced, as appropriate, to ensure proper operation of the instrumentation during testing. Records of such activities will be retained.

Recorded Operating Parameters for Incinerators			
Parameter	**Current Manufacturer**	**Range**	**Principle**
Oxygen	COSA	0-25%	Electrochemical
Carbon Monoxide	Ecochem MC3	0-200 ppmv 0-3000 ppmv	Infrared
Total hydrocarbons	ThermoElectro (Unit 2) Compur FID (Unit 3 & 4)	0-100 ppmv	FID/Infrared
Hydrogen chloride	Ecochem MC3	0-1000 ppmv	Infrared
Opacity	Teledyne	0-100%	White light
Stack Flow	PSE	0-20,000 acfm (Unit 2 & 3) 0-55,000 acfm (Unit 4)	Pressure drop

A. Recordkeeping

Veolia records information as required by the Hazardous Waste Combustor MACT standard, 40 CFR 63. Unit 2, 3, 4, Material Processing Areas 1 and 2, Bulk Feed Building, Lab Pack Repack Area, and all tanks used for the storage of liquid waste are subject to requirements of 40 CFR 61 Subpart FF (Benzene NESHAP). In addition to the general recordkeeping requirements summarized in the following tables, these units comply with all applicable recordkeeping requirements as required by 40 CFR 61 Subpart FF.

Recorded Operating Parameters	
63.1200, 63.10(b) and (c)	General. Information required to document and maintain compliance with the regulations of subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
63.1206(b)(11)	Calculation of hazardous waste residence time.
63.1206(c)(2)	Startup, shutdown, and malfunction plan.
63.1206(c)(2)(v)(A)	Documentation of your investigation and evaluation of excessive exceedances during malfunctions.
63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.
63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing.
63.1206(c)(4)(ii)	Emergency safety vent operating plan.
63.1206(c)(4)(iii)	Corrective measures for any emergency safety vent opening.
63.1206(c)(5)(ii)	Method used for control of combustion system leaks.
63.1206(c)(6)	Operator training and certification program.
63.1209(c)(2)	Feedstream analysis plan.
63.1209(q)	Documentation of changes in modes of operation.
63.1211(c)	Documentation of compliance.

The following operating parameters for Units 2, 3, and 4 are automatically recorded every 15 seconds into the computer system.

Recorded Operating Parameters Units 2 and 3	
Data Recorded	**Related to Operating Parameter**
Primary Combustion Chamber Temperature	Primary Combustion Chamber Temperature
Secondary Combustion Chamber Temperature	Secondary Combustion Chamber Temperature
Stack O2 Corrected	CEM
Stack CO Corrected	CEM
Stack Opacity	CEM
Stack Flow	Stack Flow Rate
Spay Dryer Adsorber Outlet Temp	Baghouse Inlet Temperature
Pumpable Hazardous Waste Feed	Pumpable / Total Waste Feed Rate
Solid Hazardous Waste Feed	Pumpable / Total Waste Feed Rate
Hazardous Waste Chlorine Content	Chlorine Feed Rate
Hazardous Waste Arsenic, Beryllium and Chromium Content	Low Volatile Metals Feed Rate

Recorded Operating Parameters Units 2 and 3	
Hazardous Waste Cadmium and Lead Content	Semi Volatile Metals Feed Rate
Hazardous Waste Mercury Content	Mercury Feed Rate
Ash Content of Hazardous Waste	Ash Feed Rate

Recorded Operating Parameters Unit 4	
Data Recorded	**Related to Operating Parameter**
Primary Combustion Chamber Temperature	Primary Combustion Chamber Temperature
Secondary Combustion Chamber Temperature	Secondary Combustion Chamber Temperature
Stack O_2 Corrected	CEM
Stack CO Corrected	CEM
Stack Opacity	CEM
Stack Flow	Stack Flow Rate
Spray Dryer Absorber Outlet Temperature	Baghouse Inlet Temperature
Pumpable Hazardous Waste Feed	Pumpable / Total Waste Feed Rate
Solid Hazardous Waste Feed	Pumpable / Total Waste Feed Rate
Hazardous Waste Chlorine Content	Chlorine Feed Rate
Hazardous Waste Arsenic, Beryllium and Chromium Content	Low Volatile Metals Feed Rate
Hazardous Waste Cadmium and Lead Content	Semi Volatile Metals Feed Rate
Hazardous Waste Mercury Content	Mercury Feed Rate
Ash Content of Hazardous Waste	Ash Feed Rate
Carbon Injection Flow	Carbon Injection Feed Rate

Additional Recordkeeping		
Recorded Parameter	**Method**	**Frequency**
Units 2, 3 and 4		
Various – See tables above	Computer System / CEM	Every 15 Seconds
Inspection	As Required by 40 CFR 61 Subpart FF	Quarterly
	Inspection Certification	Quarterly
Spray Dryer Absorber (SDA) for Unit 2, SDA for Unit 3 and SDA for Unit 4		
Chlorine Feed	Programmable Logic Controller	Per Charge
Outlet Temperature	Thermocouple	Continuous
Inlet Temperature	Thermocouple	Continuous
HCl	Extractive NDIR	Continuous
Lime Flow	Magnetic	Continuous
Baghouse for Unit 2, Baghouse for Unit 3 and Baghouse for Unit 4		
Stack Gas Flow	Annubar Flowmeter	Continuous
Pressure Drop	Delta P Transmitter	Continuous
Opacity	White Light Monitor	Continuous

Additional Recordkeeping		
Material Processing Area 1 and Material Processing Area 2		
Throughput	Operations Log	Daily
Lab Pack Repack		
Throughput	Operations Log	Daily
Drum Crusher		
Throughput	Waste Tracking	Continuous
Bulk Feed Building		
Work Practices / Operations	Visual Inspection and Inspection Log	Daily
System Condition	Visual Inspection	Quarterly
Inspection	As Required by 40 CFR 61 Subpart FF	Quarterly
	Inspection Certification	Quarterly
Carbon Adsorption System for Bulk Feed Building		
Exhaust VOM	EPA Method 21 per 40 CFR 61 Subpart FF	Daily
System Condition Inspection	Visual Inspection per 40 CFR 61 Subpart FF	Quarterly
	Inspection Certification	Quarterly
Boiler 1		
Amount and Type of Fuel Used	Natural Gas Meter	Monthly
Startup, Shutdown Malfunction time and duration	Operating record	Per Occurrence
Tune-up Records	Maintenance records and Report	Annual
Energy Assessment	Report	Once
Tank 2, 4, 6, 8, 10, 20, 30, 40, 50, 60		
Throughput	Waste Tracking	Continuous
Carbon Canister 2, 4, 6, 8, 10, 20, 30, 40, 50, 60		
Exhaust VOM	EPA Method 21	20% design carbon replacement interval
Condition of Closed Vent System	Visual Inspection	Quarterly
Inspection	As Required by 40 CFR 61 Subpart FF	Quarterly
	Inspection Certification	Quarterly
Tank 300, 302, 304, 306, 308, 310, 312, 314		
Throughput	Waste Tracking	Continuous
Condition of Closed Vent System	Visual Inspection	Quarterly
Carbon Canister 300, 302, 304, 306, 308, 310, 312, 314		
Exhaust VOM	EPA Method 21	20% design carbon replacement interval
Condition of Closed Vent System	Visual Inspection	Quarterly

Additional Recordkeeping		
Inspection	As Required by 40 CFR 61 Subpart FF	Quarterly
	Inspection Certification	Quarterly
Tank 390		
Throughput	Supplier invoices	Purchase frequency
Emergency Generators		
Hours of operation and description of use	Non-resettable hour meter	Per Occurrence
Startup, Shutdown Malfunction time and duration	Operating record and maintenance records	Per Occurrence

Veolia utilizes an extensive preventative maintenance (PM) program to keep equipment operational and prevent breakdowns and failures. This includes aspects such as documenting detailed maintenance histories on equipment, routine inspection, and lubrication programs for high-wear equipment and non-destructive testing of piping and vessels using techniques like ultrasound to assess integrity. The frequency of these activities varies depending upon the equipment, PM activity, and the incinerator's shutdown schedule.

B. Reporting Requirements

Veolia reports information as required by the Hazardous Waste Combustor MACT standard, 40 CFR 63. Unit 2, 3, 4, Material Processing Area 1 and 2, Bulk Feed Building, Lab Pack Repack Area and all tanks that are used for the storage of liquid waste are also subject to requirements of 40 CFR 61 Subpart FF (Benzene NESHAP). In addition to the general reporting requirements summarized in the following tables, these units comply with all applicable reporting requirements as required by 40 CFR 61 Subpart FF.

General Reporting Requirements	
Reference	**Report**
63.10(d)(4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under Sec. 63.6(i).
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.
63.10(e)(3)	Excessive emissions and continuous monitoring system performance report and summary report.
63.1206(c)(2)(ii)(B)	Startup, shutdown, and malfunction plan.
63.1206(c)(3)(vi)	Excessive exceedances reports.
63.1206(c)(4)(iv)	Emergency safety vent opening reports.

Reporting Requirements		
Reporting Requirement	**Report Title**	**Frequency**
Unit 2, Unit 3 and Unit 4		
Emission Inventory	Annual Emissions Report	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly

Reporting Requirements		
Inspection as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Lab Pack Repack		
Emission Inventory	Annual Emissions Report	Annual
Drum Crusher		
Emissions Inventory	Annual Emissions Report	Annual
Material Processing Area 1 and Material Processing Area 2		
Emission Inventory	Annual Emissions Report	Annual
Bulk Feed Building		
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Emissions Inventory	Annual Emissions Report	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Carbon Adsorption System for Bulk Feed Building		
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Boiler 1 and Proposed Boiler 2		
Emission Inventory	Annual Emissions Report	Annual
Compliance Report	Annual Compliance Report	Annual
Tank 2, 4, 6, 8, 10, 20, 30, 40, 50, 60		
Emission Inventory	Annual Emissions Report	Annual
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Carbon Canister 2, 4, 6, 8, 10, 20, 30, 40, 50, 60		
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Tank 300, 302, 304, 306, 308, 310, 312, 314		
Emission Inventory	Annual Emissions Report	Annual
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Carbon Canister 300, 302, 304, 306, 308, 310, 312, 314		
Inspections as required by 40 CFR 61.357	Annual Inspection Summary	Annual
Visual Inspections and Monitoring	Quarterly inspection certification as Required by 40 CFR 61 Subpart FF	Quarterly
Tank 390		
Emissions Inventory	Annual Emissions Report	Annual

Veolia reports to the IEPA each occurrence of an AWFCO due to the combustion zone pressure being greater than allowable setpoints when evidence of visible emissions during the AWFCO exists. In addition, any failure to perform the work practice standards for the emergency generators will be reported.