

**OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT
REVIEW REPORT**

**Covanta Marion, Inc.
4850 Brooklake Road, Northeast
Brooks, OR 97305**

PSEL CRED	SOURCE TEST	COMS	CEMS	AMB MON	COMPL SCHED	SPEC COND	REPORT				EXCESS		NSPS	NSR	PSD	SIZE	
							A	S	Q	M	R	N				TV	A2
	X	X	X				X	X			X					X	

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LIST OF ABBREVIATIONS USED IN THIS REVIEW REPORT

AMB	Ambient	NSPS	New source performance standard
AQMA	Air quality management area	NSR	New source review
ASME	American Society of Mechanical Engineers	O ₂	Oxygen
ASTM	American Society of Testing and Materials	OAR	Oregon Administrative Rules
Be	Beryllium	CMI	Covanta Marion, Inc.
Cd	Cadmium	ORS	Oregon Revised Statutes
CEMS	Continuous emissions monitoring system	Pb	Lead
CFR	Code of federal regulations	PCD	Pollution Control Device
CMS	Continuous monitoring system	PM	Particulate matter
CO	Carbon monoxide	PM ₁₀	Particulate matter less than 10 microns in size
CO ₂	Carbon dioxide	ppm	parts per million
COMPL	Compliance	PSD	Prevention of significant deterioration
COMS	Continuous opacity monitoring system	PSEL	Plant Site Emission Limit
COND	Condition	SCHED	Schedule
CRED	Credit	SPEC	Special
DEA	United States Drug Enforcement Agency	SO ₂	Sulfur dioxide
DEQ	Oregon Department of Environmental Quality	ST	Source test
Dioxin/furans	Total tetra- through octa-chlorinated-p-dibenzo dioxins and dibenzo furans	SW	Solid waste
dscf	dry standard cubic feet	TCDD	Total tetra-chlorinated dioxins
dscm	dry standard cubic meter	VE	Visible emissions
EF	Emission factor	VMT	Vehicle mile traveled
EPA	United State Environmental Protection Agency	VOC	Volatile organic compound
ESP	Electrostatic precipitator		
EU	Emissions unit		
F	Fluorides		
FCAA	Federal Clean Air Act		
GCP	Good combustion practices		
gr/dscf	grains per dry standard cubic feet		
HAP	Hazardous air pollutant		
HCl	Hydrogen chloride (hydrochloric acid)		
Hg	Mercury		
ID	Identification code		
I&M	Inspection and maintenance		
mg/dscm	milligram/dry standard cubic meter		
MON	Monitoring		
MWC	Municipal waste combustor		
NA	Not applicable		
ng/dscm	nanogram/dry standard cubic meter		
NESHAP	National emission standard for hazardous air pollutants		
NO _x	Oxides of nitrogen		

INTRODUCTION

1. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the draft permit conditions.
2. The proposed permit is a renewal of the existing Oregon Title V Operating Permit, which was issued on December 27, 2001, and was originally scheduled to expire on July 1, 2006. A Department initiated administrative amendment (Addendum No. 1) was issued on May 20, 2005, to correct an oversight in Condition 33. Since CMI submitted a timely permit application as required by rule, the expiration date of the current permit (07/01/2006) is extended until the new permit is issued.

PERMITTEE IDENTIFICATION

3. Covanta Marion, Inc. (CMI) owns and operates a Solid Waste-to-Energy Facility (Facility) in Brooks, Oregon. Construction approval for the Facility was issued by the Department in 1983 and the Facility began operations in 1986. The primary objective of the CMI Facility is to provide for the disposal of solid waste. In order to achieve this primary objective the Facility receives, stores, and combusts solid waste as defined in Oregon Revised Statutes (ORS) 459.005 and the Facility's Solid Waste Permit. The combustible fraction of the solid waste is utilized to produce steam, which is in turn utilized in a turbine generator to produce electricity which is sold to the local utility. The Facility operates 24 hours per day, 365 days per year, except for periods of scheduled and unscheduled maintenance.

The Facility is located on approximately 16 acres east of Exit 263 on Interstate-5 on Northeast Brooklake Road. CMI provides the necessary utilities, including on-site potable and industrial water systems, and a pumping station and pipeline to the Willamette River for discharge of treated cooling and process water. Sewage services are provided by Brooks Sewer District. Electricity for in-plant use is generated by the Facility and provided by Portland General Electric (PGE) when the turbine generator is off-line. The Facility is tied to the PGE grid via the on-site switchyard. The switchyard distributes the power to the local utility power grid for sale and distribution. Natural gas service is supplied from a natural gas main located near the site.

FACILITY DESCRIPTION

4. Fuel

The Facility is authorized by the Oregon Department of Environmental Quality (DEQ) to accept solid waste, which is defined as "all putrescible and nonputrescible wastes including but not limited to garbage, rubbish, refuse, ashes, waste papers and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludges; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure, vegetable or animal solid and semisolid wastes, dead animals, and containers of infectious wastes".

Additionally, CMI is authorized to accept for disposal the following solid wastes when delivered on a segregated basis: commodity wastes such as health care products, shampoo, cosmetics, etc.; pharmaceutical wastes such as prescription and over-the-counter drugs, and DEA-controlled substances; manufacturing wastes such as floor sweepings, non-hazardous industrial filters (paint and dust collection filters), industrial sludges, filter cakes, adhesives, paint and ink wastes; oily wastes such as rags and oil filters; and triple-rinsed containers. These wastes may be accepted in consumer packaging or in bulk.

The Facility is also authorized to accept solid wastes from commercial waste collection vehicles operated by individual commercial and industrial sources and other sources approved by the Department.

The Facility is prohibited from accepting the following: a) hazardous wastes except as provided in the Department's Administrative Rules; b) materials used for fertilizer or for other productive purposes or which are salvageable as such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of animals; c) solid waste from individual private citizens delivering their own household wastes; d) out-of-state wastes classified as hazardous wastes in their state of origin even if such wastes would not be classified hazardous wastes if they originated in Oregon; e) lead-acid batteries; and f) radioactive wastes except as allowed by the source's solid waste permit for temporary storage. Undigested sewage sludge and septic pumpings are not acceptable unless specifically authorized by the Department. Further, the Facility does not accept any of the following beryllium-containing wastes as defined in 40 CFR Part 61, Subparts C and D: wastes generated by extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste.

Facility Operation

After being weighed, unprocessed acceptable waste is delivered to a storage pit in the refuse building. From the pit, the waste is lifted by one of two electrically powered overhead cranes and placed into one of the two combustion units charging hoppers. Prior to being placed into one of the charging hoppers, the refuse is mixed in the pit to ensure a more homogeneous fuel mix. Mixing is accomplished by spreading freshly delivered refuse across the pit. Medical waste is not stored on site and is directly transported by conveyor from the tipping floor to one of two charging hoppers, except on rare occasions, the crane is used to deliver medical waste to the boilers.

Combustion

Combustion takes place in two boilers with integral waterwall furnaces. Each boiler operates independently of the other. The Facility can process a total of 650 tons per day of solid waste. Most SW is lifted into the charging hoppers by crane. However, some wastes, such as medical waste, are delivered to the charging hoppers via a conveyor system. To seal the feed chute from outside air infiltration, and to maintain control of the furnace draft, the hopper is kept full of solid waste.

From the feed chute, waste is pushed by hydraulic ram feeders onto the Martin Reverse-action Reciprocating Stoker Grate. The stoker system is sloped downward and is composed of alternating rows of fixed and moving grate bars. The reciprocating grate bars push upward against the natural downward movement of the waste bed creating a constant rolling movement that ensures the waste is continually agitated. This creates an under-fire bed of burning waste onto which fresh waste is fed. A forced draft fan pulls air from above the charging hoppers to control odors and prevent them from escaping the refuse building. This fan also supplies combustion air to the underside of the stoker grate bars in volumes that are controlled to meet the necessary combustion conditions. The uniform air distribution also cools the grate bars to prolong grate bar life. Additional combustion air is introduced above the stoker at the front and rear walls of the furnace. The resulting flame turbulence prevents the escape of unburned gases from the furnace.

The combustion residue or bottom ash slowly makes its way to the end of the grate where it falls into a water quenching trough in the Martin Ash Discharger.

Inside the boiler, water-filled tubes form the furnace walls throughout the boiler. The heat from the combustion process in the furnace converts the water in the tubes to steam. The superheater further heats the steam before it is sent to a turbine which drives the generator, which produces electricity.

Exhaust steam from the turbine-generator is condensed in a water-cooled condenser. The resulting condensate is recovered and pumped back to the boilers for reuse. The heat absorbed by the condensing water is transferred and dissipated in the cooling tower located east of the main building.

Emission Controls

Cooled exhaust gases resulting from the processing of solid waste leave the boiler and enter the air pollution control system.

Each boiler is equipped with a spray dryer absorber (SDA) for acid gas removal, a fabric filter baghouse for the control of particulate matter emissions, a selective non-catalytic reduction (SNCR) for control of nitrogen oxides, and dry activated carbon injection for mercury emissions control. Each fabric filter baghouse is followed by an induced draft fan, which directs the cleaned flue gas to a dedicated flue in a common stack. Each unit is also equipped with continuous emission and parameter monitoring systems to provide feedback on the effectiveness on the air pollution control equipment.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

5. The emissions units at this facility are summarized below:

Emissions Unit	EU ID	Pollution Control Device/Practice	PCD ID
Municipal waste combustor unit 1	MWC-1	Baghouse Semi-dry flue gas scrubber Carbon Injection Aqueous Ammonia Injection	C-1 C-3 C-5 C-6
Municipal waste combustor unit 2	MWC-2	Baghouse Semi-dry flue gas scrubber Carbon Injection Aqueous Ammonia Injection	C-2 C-4 C-5 C-6
Municipal waste combustor-Facility Total for PSEL	MWC-FT	N/A	NA
Aggregate insignificant emissions including fugitive dust emissions from vehicle traffic on paved roads and material handling of lime and carbon.	AI	none	NA

6. Provided below is a description of each of the emissions units and control devices at this facility:

MWC-1 and MWC-2

Emissions units Municipal Waste Combustor unit 1 (MWC-1) and Municipal Waste Combustor unit 2 (MWC-2) each consist of a mass burn waterwall waste-to-energy boiler (Devices D-1 and D-2, respectively). Both boilers are manufactured by Zurn and the combustion grates are manufactured by Martin GmbH. The waste feed is continuous using a hydraulic ram. Each boiler is rated at 107 million Btu/hr heat input. The combined boilers can combust up to 650 tons of waste per day. The waste has a nominal heating value of 4,000 to 5,000 Btu/lb.

MWC-FT

Emissions unit Municipal Waste Combustor-Facility Total (MWC-FT) consists of the total emissions from all emissions units for the purpose of demonstrating compliance with the facility’s plant site emission limits.

AI

Emissions unit Aggregate Insignificant activities (AI) includes the following:

- a. Refuse delivery truck and hauling truck travel on paved roads within the facility.
- b. Pneumatic delivery of pebble lime into the storage silo, which is equipped with a baghouse.
- c. Pneumatic delivery of carbon to the carbon storage silo which is equipped with a baghouse.

Refuse delivery trucks stop on the incoming scales to weigh and then enter the tipping floor to off-load refuse into the storage pit. To exit the facility site, the trucks travel around the enclosed ash storage building and exit onto Brooklake Road. Ash hauling trucks travel directly to the enclosed ash storage building, where they are loaded with ash for transport to the monofill. These activities are regulated by the Title V permit, which requires paved areas to be maintained in clean condition, ash to be stored and transported in a wetted condition, and a clean up program to collect spilled refuse as needed.

The Facility receives deliveries of dolomitic and pebble lime, and carbon into storage silos on an as-needed basis. These materials are transferred pneumatically from the delivery trucks into the silos. The silos are equipped with baghouses to control particulate matter emissions.

The combined particulate matter emissions from these activities are less than 1 ton/year. As such, they are classified as aggregate insignificant activities.

Acid Gas Controls

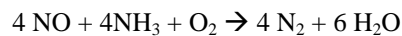
Semi-dry lime slurry scrubbers are used to control acid gas emissions on each boiler (control devices C-3 and C-4). The lime volumetric flow meter provided with each scrubber measures dilute slurry of varying lime concentration (i.e., weight percent) of Ca(OH)₂ in suspension. Each spray dryer operates with a feedback control loop which uses a stack SO₂ emissions rate (as lb/hr) set point. The lime injection rate into each spray dryer increases when the stack SO₂ emission rate exceeds the set point. The scrubbers were manufactured by Teller Environmental Systems, Inc. and were installed when the plant was constructed in 1983.

Particulate Matter Controls

Baghouses (control devices C-1 and C-2) are used to remove particulate matter from the exhaust gas after the semi-dry lime slurry scrubbers. Each baghouse has an air-to-cloth ratio of 1.8:1. The design pressure drop is 3 inches of water at a design flow rate of 57,390 actual cubic feet per minute. Reverse air is used to clean the bags on an automatic schedule. The design removal efficiency is at least 90%. The baghouses were manufactured by American Air Filter Company and installed when the municipal waste combustors were installed in 1983.

NO_x Controls

In 1998, a SNCR system was installed to control NO_x emissions (control device C-6). Aqueous ammonia along with additional carrier water is injected into each furnace above the combustion grates through one nozzle positioned on the front wall of the furnace. Two additional wall boxes are provided per combustion unit (one on each side of the furnace). The alternate locations permit relocation of the injection nozzles to optimize performance, if required. The main chemical reaction forming the basis of the SNCR process is:



The principal components of the system include: an aqueous ammonia storage tank, an ammonia feed pump skid, a carrier water supply from the existing demineralized water system, a purge air system, and injection nozzles.

Hg Controls

The mercury emissions control system (control device C-5) utilizes a pneumatic feed system that injects dry activated carbon directly into the flue gas ductwork downstream of the economizer of each combustion unit. The system was installed in 1998 and consists of two independent carbon injection trains, each dedicated to one of the two combustion units. The carbon injection systems are fed from a common carbon storage silo that is equipped

with a baghouse vent filter. The silo has two outlet hoppers to ensure each injection train is independently fed and controlled. From the outlet hoppers, the carbon is fed directly into dedicated surge bins, each equipped with gravimetric feeders for controlling the carbon feed rate. Each injection train is equipped with a pneumatic conveying system to transport the carbon from the feeder (using an air blower and eductor) to the flue gas duct. The carbon, containing adsorbed mercury is captured in the baghouse for disposal along with the combustion fly ash. A "Y" injection system capable of injecting carbon to both units simultaneously from one feed system is available should one of the independent systems fail.

Categorically insignificant activities at the facility include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Office activities
- Janitorial activities
- Personal care activities
- Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance
- On-site laundry facilities
- Instrument calibration
- Maintenance and repair shop
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Air purification systems
- Continuous emissions monitoring vent lines
- Demineralized water tanks
- Pre-treatment of municipal water, including use of deionized water purification systems
- Electrical charging stations
- Instrument air dryers and distribution
- Blueprint making
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Storm water settling basins
- Fire suppression and training
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service

- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
- Non-contact steam condensate flash tanks
- Non-contact steam vents on condensate receivers, deaerators and similar equipment
- Boiler blowdown tanks
- Industrial cooling towers that do not use chromium-based water treatment chemicals
- Ash piles maintained in a wetted condition and associated handling systems and activities
- Combustion source flame safety purging on startup

REQUESTED PERMIT CHANGES

7. CMI has requested that the listed “Responsible Officials” be changed to the ones designated in the renewal application.

The Department agrees and the changes will be made.

8. CMI has requested that the existing permit condition (No. 33) dealing with start-up, shutdown, and malfunction events and other pertinent conditions be reorganized such that the start-up, shutdown, and malfunction exemption condition will follow all of the permit conditions to which it applies.

The Department agrees and the change will be made.

9. CMI has requested that existing Condition 16 be modified to allow the continuous opacity monitoring system to be used to determine compliance with the state’s visible emissions standard and to clarify that a violation of the standard occurs when 4 or more 1-minute opacity readings are equal to or exceed 20 percent.

The Department agrees and the changes will be made.

10. CMI has requested that existing Condition 18 be modified to clarify that the visible emissions standard for the ash conveying systems is not applicable during times when the associated municipal waste combustor is not operating.

The Department agrees and the changes will be made.

11. In an effort to simplify the permitting process and make it more efficient, the EPA published guidance in “White Paper No. 2”, which allows and encourages agencies to streamline multiple applicable requirements. The guidance documents states:

“...multiple emission limits may be streamlined into one limit if that limit is at least as stringent as the most stringent limit...If no one requirement is unambiguously more stringent than the others, the applicant may synthesize the conditions of all the applicable requirements into a single new permit term that will assure compliance with all requirements...”

- a. CMI has requested that the visible emissions standards of existing Condition 16 be streamlined into existing Condition 17.

Because the visible emissions standards in these conditions are on different time basis, a definite case can not be made that one is more or less stringent than the other. As such, the Department does not agree to the requested change.

- b. CMI has requested that the Lead standards in existing Condition 24 be streamlined into existing Condition 23.

The Department agrees and the changes will be made.

- c. CMI has requested that the Sulfur Dioxide (SO₂) standards in existing Condition 27 be streamlined into existing Condition 26.

The Department agrees and the changes will be made.

- d. CMI has requested that the Hydrogen Chloride (HCl) standards in existing Condition 29 be streamlined into existing Condition 28.

The Department agrees and the changes will be made.

- 12. CMI has requested that changes be made in the “Testing Requirements” section of the permit. Much of the language used for each pollutant is repetitive. This repetitive language lends itself to being stated only once under existing Condition 41 instead of being repeated under each specific pollutant testing condition.

The Department agrees and the changes will be made.

- 13. CMI has requested the language in the mercury testing requirement be modified to make it consistent with the language found in existing Conditions 34 and 35. Specifically, that the carbon federate or usage is not applicable during the two weeks preceding the annual mercury test or may be waived for evaluating performance, testing new technology, etc..

The Department agrees and the changes will be made.

- 14. CMI has requested that additional language be inserted into existing Condition 60.i.i to remedy the situation when the inlet SO₂ emissions are very low which can cause very small differences in the monitoring systems to result in large percentage differences making it difficult to comply with the requirements off Performance Specification 2. The language to be added is as follows:

“If inlet SO₂ emissions are very low the permittee may use the alternative relative accuracy procedures in 40 CFR Part 60, Appendix B, Performance Specification 2, Section 16. Alternatively, the relative accuracy of the inlet SO₂ must be within 5 ppmv when the relative accuracy is calculated as the absolute average difference between the reference method and CEMS plus the 2.5% confidence coefficient.”

The Department agrees and the changes will be made.

- 15. On May 10, 2006, the EPA published final rules which stated that 40 CFR Part 60 Subpart E does not apply to facilities at which Subpart Cb applies. As such, the Department has deleted the Subpart E requirements that were in the previous permit.

16. Because of the proposed changes in the permit, the condition numbers for many of the requirements will be changed. A comparison of the old and new permit condition numbers is provided below.

Old Permit Condition Number	New Permit Condition Number	Description of change	Reason for change
1	1	--	--
2	2	--	--
3	3	--	--
4	4	--	--
5	8	Renumbered	Permit reorganization.
6	9	Renumbered	Permit reorganization.
7	10	Renumbered	Permit reorganization.
8	11	Renumbered	Permit reorganization.
9	12	Renumbered	Permit reorganization.
10	NA	Deleted	SERP requirement not applicable to this facility as VOC < 40 TPY.
11	5	Renumbered	Permit reorganization.
12	7	Renumbered	Permit reorganization.
13	G4	Renumbered	Permit reorganization.
14	6	Renumbered	Permit reorganization.
15	NA	Deleted	With SO ₂ CEM, lime injection monitoring no longer needed.
16	13	Renumbered	Permit reorganization.
17	14	Renumbered	Permit reorganization.
18	15	Renumbered	Permit reorganization.
19	16	Renumbered	Permit reorganization.
20	NA	Deleted	Subpart E requirements not applicable after 5/10/06.
21	17	Renumbered	Permit reorganization.
22	18	Renumbered	Permit reorganization.
23	19	Renumbered	Permit reorganization.
24	NA	Deleted	Streamlined Pb emission standards into new condition 19.
25	20	Renumbered	Permit reorganization.
26	21	Renumbered	Permit reorganization.
27	NA	Deleted	Streamlined SO ₂ emission standards into new condition 21.
28	22	Renumbered	Permit reorganization.
29	NA	Deleted	Streamlined HCl emission standards into new condition 22.
30	23	Renumbered	Permit reorganization.
31	24	Renumbered	Permit reorganization.
32	25	Renumbered	Permit reorganization.
33	28	Renumbered	Permit reorganization.
34	26	Renumbered	Permit reorganization.
34.a, 34.b	36	Renumbered	Permit reorganization.
35	27	Renumbered	Permit reorganization.
35.a, 35.b	36	Renumbered	Permit reorganization.
36	29	Renumbered	Permit reorganization.

Old Permit Condition Number	New Permit Condition Number	Description of change	Reason for change
37, 38, 39	30	Renumbered and updated.	Permit reorganization and incorporated updated template language.
40	31	Renumbered and updated.	Permit reorganization and incorporated updated template language.
67, 68	32	Renumbered and updated.	Permit reorganization and incorporated updated template language. Subpart E recordkeeping eliminated. PSEL monitoring requirements moved to PSEL section.
41	33	Renumbered and updated.	Permit reorganization and incorporated updated template language.
NA	34	Added	Permit reorganization. Collected common testing requirements for multiple pollutants into one condition.
81	35	Renumbered	Permit reorganization. Testing requirement moved to Testing Requirements section.
NA	36	Added	Permit reorganization. Collected common testing requirements for multiple pollutants into one condition.
42	37	Renumbered	Permit reorganization.
42.e	NA	Deleted	Subpart E no longer applicable.
42.g, 42.h	34	Renumbered	Permit reorganization.
43	38	Renumbered	Permit reorganization.
43.a, 43.b, 43.c, 43.f, 43.g	34	Renumbered	Permit reorganization.
44	39	Renumbered	Permit reorganization.
44.a, 44.b, 44.f, 44.h	34	Renumbered	Permit reorganization.
45	40	Renumbered	Permit reorganization.
45.e	34	Renumbered	Permit reorganization.
46	41	Renumbered	Permit reorganization.
46.a, 46.b	34	Renumbered	Permit reorganization.
47	42	Renumbered	Permit reorganization.
47.c	34	Renumbered	Permit reorganization.
48	NA	Deleted	Redundant.
49	43	Renumbered	Permit reorganization
50	44	Renumbered	Permit reorganization.
51	45	Renumbered	Permit reorganization.
52	NA	Deleted	Redundant.
NA	46	Added	Clarifying monitoring condition added.
	47	Added	Permit reorganization. Collected common testing requirements for multiple pollutants into one condition.

Old Permit Condition Number	New Permit Condition Number	Description of change	Reason for change
	48	Added	Permit reorganization. Collected common testing requirements for multiple pollutants into one condition.
	49	Added	Permit reorganization. Collected common testing requirements for multiple pollutants into one condition.
53	51	Renumbered	Permit reorganization.
54	52	Renumbered	Permit reorganization.
55	NA	Deleted	SERP requirement deleted.
56	53	Renumbered	Permit reorganization.
57	NA	Deleted	Lime injection requirement deleted.
58	54	Renumbered	Permit reorganization.
59	55	Renumbered and updated.	Permit reorganization. COM monitoring for 20% VE standard added (condition 55.c).
60	56	Renumbered and updated.	Permit reorganization. Inserted alternative language for low inlet SO ₂ emissions as requested by source.
60.f	47	Renumbered	Permit reorganization.
60.h	48	Renumbered	Permit reorganization.
60.j	49	Renumbered	Permit reorganization.
60.k	47.c	Renumbered	Permit reorganization.
61	57	Renumbered	Permit reorganization.
61.b	50	Renumbered	Permit reorganization.
61.d	47	Renumbered	Permit reorganization.
61.f	48	Renumbered	Permit reorganization.
61.h	49	Renumbered	Permit reorganization.
61.i	47.c	Renumbered	Permit reorganization.
62	58	Renumbered	Permit reorganization.
62.f, 62.h	47	Renumbered	Permit reorganization.
62.g	50	Renumbered	Permit reorganization.
62.i	48	Renumbered	Permit reorganization.
62.j	49	Renumbered	Permit reorganization.
63	59	Renumbered	Permit reorganization.
63.d	47	Renumbered	Permit reorganization.
64	60	Renumbered	Permit reorganization.
64.c	47	Renumbered	Permit reorganization.
65	61	Renumbered	Permit reorganization.
66	62	Renumbered	Permit reorganization.
NA	63	Added	Monitoring for new permit condition 29.
67, 68	32	Renumbered and updated.	Permit reorganization and incorporated updated template language. Subpart E recordkeeping eliminated. PSEL monitoring requirements moved to PSEL section.
69	64	Renumbered	Permit reorganization.
70	65	Renumbered	Permit reorganization.

Old Permit Condition Number	New Permit Condition Number	Description of change	Reason for change
71	66	Renumbered	Permit reorganization.
72	67	Renumbered and updated.	Permit reorganization. Outdated language removed.
73	70	Renumbered and updated.	Permit reorganization.
74	69	Renumbered	Permit reorganization.
75	71	Renumbered	Permit reorganization.
76	72	Renumbered	Permit reorganization.
77	73	Renumbered	Permit reorganization.
78	74	Renumbered	Permit reorganization.
79	75	Renumbered and updated.	Permit reorganization.
80	NA	Condition number removed.	Addresses are informational, not applicable requirements.
81	35	Renumbered	Permit reorganization. Testing requirement moved to Testing Requirements section.
82, 86	76	Renumbered	Permit reorganization.
83	77	Renumbered	Permit reorganization.
84	77.a.v	Renumbered	Permit reorganization.
85	77.b	Renumbered and updated.	Permit reorganization. Reporting requirement clarified.
87	78	Renumbered and updated.	Permit reorganization. Subpart E reporting requirements eliminated. Updated reporting requirements for types and amounts of waste burned.
88	79	Renumbered	Permit reorganization.
NA	80	Added	Incorporated an applicable requirement that was not addressed in the old permit.
89	81	Renumbered and updated.	Permit reorganization. Updated Non-Applicable requirements listing.
G1	G1	Renumbered	Permit reorganization.
G2	G2	Renumbered	Permit reorganization.
G3	G3	Renumbered	Permit reorganization.
13	G4	Renumbered	Permit reorganization.
G4	G5	Renumbered	Permit reorganization.
G5	G6	Renumbered	Permit reorganization.
G6	G7	Renumbered	Permit reorganization.
G7	G8	Renumbered	Permit reorganization.
G8	G9	Renumbered	Permit reorganization.
G9	G10	Renumbered	Permit reorganization.
G10	G11	Renumbered	Permit reorganization.
G11	G12	Renumbered	Permit reorganization.
G12	G13	Renumbered	Permit reorganization.
G13	G14	Renumbered	Permit reorganization.
G14	G15	Renumbered	Permit reorganization.
G15	G16	Renumbered	Permit reorganization.
G16	G17	Renumbered	Permit reorganization.
G17	G18	Renumbered	Permit reorganization.

Old Permit Condition Number	New Permit Condition Number	Description of change	Reason for change
G18	G19	Renumbered	Permit reorganization.
G19	G20	Renumbered	Permit reorganization.
G20	G21	Renumbered	Permit reorganization.
G21	G22	Renumbered	Permit reorganization.
G22	G23	Renumbered	Permit reorganization.
G23	G24	Renumbered	Permit reorganization.
G24	G25	Renumbered	Permit reorganization.
G25	G26	Renumbered	Permit reorganization.
G26	G27	Renumbered	Permit reorganization.
G27	G28	Renumbered	Permit reorganization.

PLANT SITE EMISSION LIMITS

BASELINE EMISSIONS RATE

- 17. This facility did not operate nor was it permitted to operate during the baseline period of 1977 or 1978. Therefore the baseline emissions rate is zero for all pollutants.

FACILITY HISTORY

- 18. In December 1983, the Department issued air, water, and solid waste permits for the construction and operation of the municipal solid waste-to-electricity facility in Brooks, Oregon. The Air Contaminant Discharge Permit (ACDP) established operating and emission conditions for the Facility based on a determination of Best Available Control Technology (BACT), ambient impact modeling, and other criteria in accordance with the Prevention of Significant Deterioration (PSD) requirements of OAR 340-028-1940 for PM/PM₁₀, CO, NO_x, SO₂, Pb, MWC Organics (PCDD/PCDF), F, MWC metals, and MWC acid gases. The Facility became operational in 1986 and has operated continuously since that time.

CURRENT PLANT SITE EMISSION LIMITS (PSEL)

- 19. The maximum capacity of the Facility is as follows:

Production parameter	Maximum capacity	
	(hourly)	(annually)
Solid waste throughput, tons	27.1	237,250
Rated electricity, MW-hr	13.1	114,756
Steam production, lb	150	1,314,000,000

20. The requested Plant Site Emission Limits are as follows:


Pollutant	Assigned (tons/year)	Unassigned prior to July 1, 2007 (tons/yr)	Unassigned on and after July 1, 2007 (tons/year)
PM	24	37	25
PM ₁₀	14	47	14
CO	99	71	71
NO _x	369	0	0
SO ₂	220	0	0
VOC	39	0	0
MWC Acid Gases	240	49	40
Pb	de minimis	1.6	0.6
F	de minimis	4.8	3
MWC Organics (PCDD/PCDF)	3.0E-06	2.77E-04	3.5E-06
MWC Metals (Hg+Cd+Pb)	de minimis	2	2

- a. The plant site emission limits for PM, CO, VOC, and MWC Organics are being set at the generic emission level for that pollutant in accordance with OAR 340-222-0041(1) because the requested emission rates are less than the SER.
- b. The plant site emission limits for PM₁₀, NO_x, SO₂, and MWC Acid Gases are being set at the requested emission level in accordance with OAR 340-222-0041(2).
- c. No plant site emission limits are being set for Lead (Pb), Fluorides (F), and MWC Metals because the anticipated emissions of these pollutants are less than the applicable de minimis levels defined in OAR 340-200-0020(31).
- d. Calculation details for the anticipated emissions from this facility are shown in Appendix A to this report.

21. A comparison of the current PSEL versus the proposed PSEL is presented in the following table:

Pollutant	Current PSEL (tons/year)	Proposed PSEL (tons/year)	Change (tons/year)
PM	62	24	-38
PM ₁₀	62	14	-48
CO	87	99	12
NO _x	364	369	5
SO ₂	220	220	0
VOC	39	39	0
MWC Acid Gases (SO ₂ + HCl)	289	240	-49

MWC Metals (Hg + Cd + Pb)	De minimis	De minimis	0
Pb	De minimis	De minimis	0
F	De minimis	De minimis	0
MWC Organics (PCDD/PCDF)	De minimis	3.0E-06	3.0E-06

- a.  change in plant site emission limits for PM, PM₁₀, MWC Acid Gases are the result of applying updated emission factors generated from on site test data.
- b. In the case of NO_x, the increase is due to change in the regulatory emission limit from 200 to 205 parts per million.
- c. The increase in permitted emissions for CO and MWC Organics (PCDD/PCDF) are the result of a change in the DEQ rules which require the Department to assign a generic emission limit to the pollutant if the actual anticipated emission rate for that pollutant is less than the significant emission rate. The source has not proposed any changes in facility operations.

22. The Plant Site Emission Limit increases over the netting basis are shown below:

Pollutant	Baseline Emissions (tons/year)	Netting Basis (tons/year)	Requested PSEL (tons/year)	Increase above Netting Basis (tons/year)	SER Over the Netting Basis (tons/year)
PM	0	61 ^[a] / 49 ^(d)	24	0	25
PM ₁₀	0	61 ^[a] / 29 ^(d)	14	0	15
CO	0	170 ^[a]	99	0	100
NO _x	0	364 ^[b]	369	0	40
SO ₂	0	220 ^[a]	220	0	40
VOC	0	0	39	39	40
Pb	0	1.6 ^[a] / 0.6 ^(d)	De minimis	0	0.6
MWC Organics (PCDD/PCDF) ^[c]	0	2.8 ^[c] x 10 ⁻⁴ / 6.5 ^(d) x 10 ⁻⁶	3.0x10 ⁻⁶	0	3.5x10 ⁻⁶
F	0	4.8 ^[a] / 3 ^(d)	De minimis	0	3
MWC acid gases (HCl+SO ₂)	0	289 ^[a] / 280 ^(d)	240	0	40
MWC metals (Hg + Cd +Pb)	0	2.1 ^(e)	De minimis	0	15

Note (a): Established in the 1983 PSD permitting action.

Note (b): NO_x originally established at 290 tons/year in 1983 PSD permitting action. It was increased to 492 tons/year in the 1988 PSD permitting action. New rules in 1998 required a reduction in NO_x emissions resulting in the netting basis being decreased to 364 tons/year.

Note (c): Dioxins are expressed as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans. The original 1983 TCDD value of 5.1×10^{-6} has been converted to a PCDD/PCDF basis, using source test results.

Note (d): Netting Basis adjusted as of July 1, 2007 in accordance with OAR 340-222-0045(3)(b) because of the reduction required in the amount of unassigned emissions allowed.

Note (e): The 1983 PSD permitting action did not address cadmium, thus the netting basis is the sum of mercury and lead = $0.5 + 1.6 = 2.1$ tons/year.

23. Because the amount of the increase over the Netting Basis is less than the significant emission rate (SER) for each pollutant, no further air quality analysis is required to be conducted. Prior analysis has shown that the proposed emission levels do not violate air quality standards and the public health and welfare is protected.

HAZARDOUS AIR POLLUTANTS

24. Hazardous air pollutant emissions estimated to be emitted by this facility are shown below:

Pollutant	Potential to emit (tons/year)
Lead	0.004
Total Dioxin/furans	6.11×10^{-07}
Mercury	0.018
Cadmium	0.0016
Hydrogen Chloride	19.5
Total HAPS	19.52

STRATOSPHERIC OZONE DEPLETING SUBSTANCES

25. CMI does not manufacture, sell, distribute, or use in the manufacturing of a product any stratospheric ozone-depleting substances. Therefore, the 1990 Clean Air Act, as amended, Sections 601-608, do not apply to the facility except that air conditioning and fire extinguishers or other equipment containing Class I or Class II substances must be serviced by certified repairmen to ensure that the substances are recycled or destroyed appropriately.

TEST METHODS AND PROCEDURES

26. The permittee is required to conduct annual particulate matter, opacity, lead, cadmium, mercury, dioxin/furans, and hydrogen chloride performance tests on each of the two municipal waste combustors. In addition, the permittee is required to perform annual performance tests for visible emissions from the ash handling system. For dioxin/furans, the permittee may conduct the annual tests on one of the two municipal waste combustors provided the test results over a two year period show that the emissions from both municipal waste combustors are less than $15 \text{ ng/dscm @ } 7\% \text{ O}_2$. If any annual performance test indicates a dioxin/furan emission level of greater than $15 \text{ ng/dscm @ } 7\% \text{ O}_2$, performance tests thereafter shall be conducted annually on both of the municipal waste combustor units until and unless all annual performance tests for both municipal waste combustor units over a two year period indicate a dioxin/furan emission level less than or equal to $15 \text{ ng/dscm @ } 7\% \text{ O}_2$. Performance test reports shall be submitted to the Department within 60 days following the completion of the performance test.

MONITORING REQUIREMENTS

27. The source has determined that Compliance Assurance Monitoring (CAM) is applicable for particulate matter emissions from emissions units MWC-1 and MWC-2. However, the monitoring already required in the permit has been determined to be sufficient for CAM purposes and no additional monitoring is being required.
28. Section 70.6(a)(3)(i) of 40 CFR requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit. The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., no monitoring) will meet 40 CFR 70.6(a)(3)(i). Therefore, the permit does not include monitoring for insignificant emissions.
29. In addition to the testing described above, the permittee shall continuously monitor opacity, sulfur dioxide emissions, nitrogen oxides emissions, carbon monoxide emissions, diluent gas concentrations, unit load, PM control device inlet temperature, and carbon injection parameters. Continuous monitoring shall be performed in accordance with state and federal requirements such that the data will be reliable and accurate. The permittee is also required to prepare an operating manual and train the operators on an annual basis. The operating manual addresses good combustion practices and startup, shutdown, and malfunction procedures.

RECORDKEEPING REQUIREMENTS

30. The permit includes requirements for maintaining records of all monitoring and testing information. These records include test results, continuous emissions monitoring data and QA/QC, parameter monitoring data, visible emissions data, the date and time of measurements; and, all corrective actions, including the date, time, and outcome.

REPORTING REQUIREMENTS

31. The permit includes requirements for submitting semi-annual and annual monitoring reports that include compliance certifications. The annual monitoring report will also include operation data, emissions inventory data, and an emissions fee report. The permittee is required to immediately notify the Department of any excess emissions and keep records of the excess emissions.

GENERAL BACKGROUND INFORMATION

32. Other permits issued or required by the Department include:
- Solid Waste Permit 364
 - NPDES Wastewater Discharge Permit 101240
 - NPDES Stormwater Discharge Permit 1200-Z

33. This source is located in an area that is currently designated as non-attainment for carbon monoxide. However, ambient monitoring data has shown the area to be meeting all air quality standards. The Department is in the process of preparing a regulatory package for submittal to the EPA which will change the classification of the area to a CO maintenance area. This process could take several more of years before it is completed. This area was classified as being in non-attainment for the 1-hour ozone standard. In 2005 the EPA replaced the 1-hour ozone standard with an 8-hour standard. The EPA has declared the entire state of Oregon to be in compliance with the new standard.

COMPLIANCE HISTORY

34. The Department inspected the facility on 5/14/02, 3/20/03, 6/09/04, 4/14/05, and 3/15/06 and found it to be in compliance with all permit conditions.
35. No air quality related complaints were received by the Department or the source during the prior permit period.
36. The Department has taken no enforcement actions against the source.

SOURCE TEST RESULTS

37. Summaries of the results of performance source tests conducted during the prior permit term are provided below.

Particulate Matter (PM)
[mg/dscm @ 7% O₂]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	0.071	0.23	27
2003	4.3	2.9	27
2004	2.3	2.7	27
2005	2.5	1.8	27
2006	0.87	0.72	27

Lead (Pb)
[mg/dscm @ 7% O₂]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	0.061	0.027	0.44
2003	0.002	0.0037	0.44
2004	0.0016	0.0011	0.44
2005	0.00077	0.00076	0.44
2006	0.00064	0.0019	

Dioxins/Furans (PCDD/PCDF)
[ng/dscm @ 7% O₂]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	Not detected	Not detected	30
2003	0.74	Not tested	30
2004	Not tested	Not detected	30
2005	0.78	Not tested	30
2006	Not tested	1.2	30

Mercury (Hg)
[mg/dscm @ 7% O₂]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	0.029 / 93%	0.0086 / 98%	0.080 or 85% reduction
2003	Not detected	Not detected	0.080 or 85% reduction
2004	Not detected	Not detected	0.080 or 85% reduction
2005	Not detected	Not detected	0.080 or 85% reduction
2006	0.0058 / 99%	0.0319 / 68%	0.080 or 85% reduction

Cadmium (Cd)
[mg/dscm @ 7% O₂]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	0.0006	0.0001	0.040
2003	0.0008	0.0007	0.040
2004	Not detected	0.0006	0.040
2005	Not detected	Not detected	0.040
2006	0.00059	0.000361	0.040

Hydrogen Chloride (HCl)
[ppm]

Date	Unit 1	Unit 2	Regulatory Limit – Each Unit
2002	19 / 97%	18 / 98%	29 or 95% reduction
2003	12 / 98%	11 / 98%	29 or 95% reduction
2004	7.3 / 99%	7.0 / 99%	29 or 95% reduction
2005	10 / 99%	8 / 99%	29 or 95% reduction
2006	8.6 / 99%	12 / 98%	29 or 95% reduction

PUBLIC NOTICE

38. Pursuant to OAR 340-218-0210(1), the renewal of a Title V permit is a Category III public notification action and in accordance with OAR 340-209-0030(3) requires the Department to provide a 35-day period during which the public can submit comments in writing. This permit will be put out on public notice from November 17, 2006, to December 27, 2006, for the purpose of accepting written comments from the public. The Department will hold a public hearing on February 7, 2007, at the Salem Public Library. After the comment period, the Department will review the comments and modify the permit as may be appropriate. A proposed permit will then be sent to EPA for a 45 day review period. The Department may request and EPA may agree to an expedited review of 5 days if there were no substantive or adverse comments during the comment period. In any event, the public will have 105 days (45 day EPA review period plus 60 days) from the date the proposed permit is sent to EPA to appeal the permit with EPA. The permit will be issued as proposed or modified as required following EPA's review.

APPENDIX A

**PSEL
CALCULATION
DETAILS**

Covanta Marion
EMISSION CALCULATION DETAIL SHEET
Proposed Operations

Pollutant: PM

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.02 lb/klb steam	Verified Emission Factor (1986 – 2005 source tests)	13.0
AI	--	--	2005 Annual Report	1.0
			Total PM	14.0

Note: The PM PSEL will be set at the generic emission level of 24 tons per year.

Pollutant: PM₁₀

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.02 lb/klb steam	DEQ Factor (PM ₁₀ = 100% PM)	13.0
AI	--	--	2005 Annual Report	1.0
			Total PM₁₀	14.0

Pollutant: VOC

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.00306 lb/klb steam	Verified Emission Factor (1986 – 2001 source tests)	2.0
			Total VOC	2.0

Note: The VOC PSEL will be set at the generic emission level of 39 tons per year.

Pollutant: CO

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	87 tons/year	DEQ Engineering Calculation based on historical CEM data	87
Total CO				87

Note: The CO PSEL will be set at the generic emission level of 99 tons per year.

Pollutant: SO₂

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	220 tons/year	1983 PSD Permit Limit	220
Total SO₂				220

Pollutant: NO_x

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	205 ppm each stack	Rule Limit	369 ^(a)
Total NO_x				369

(a) NO_x Emission Limit:

$$\text{lb NO}_x / 10^6 \text{ Btu Heat Input} = [205 \text{ ppm} / 10^6] \times [46 \text{ lbs} / \text{lb mole}] \times [1 \text{ mole} / 385.3 \text{ dscf}] \times [9595 \text{ dscf} / 10^6 \text{ Btu}]$$

$$\times [20.9 / (20.9 - 7\% \text{ O}_2)] = 0.353 \text{ lb NO}_x / 10^6 \text{ Btu}$$

$$\text{Heat Input} = 1,608,000 \text{ Btu} / 1000 \text{ lb steam}$$

$$\text{NO}_x \text{ Emissions} = [1,608,000 \text{ Btu} / 1000 \text{ lb steam}] \times [0.353 \text{ lb NO}_x / 10^6 \text{ Btu}] \times [1,300,000,000 \text{ lb steam} / \text{year}] \times [1 \text{ ton} / 2000 \text{ lb}] = 369 \text{ tons} / \text{year}.$$

Pollutant: Municipal Waste Combustor Acid Gases

Note: For purposes of the PSEL, MWC Acid Gases are measured as the sum of sulfur dioxide and hydrogen chloride gases (Reference Table 2, OAR 340-200-0020).

$$\text{MWC Acid Gases PSEL} = \text{SO}_2 \text{ PSEL} + \text{HCl} = 220 + 20 = 240 \text{ tons/year}$$

Pollutant: Municipal Waste Combustor Metals

Note: For purposes of the PSEL, MWC Metals (measured as particulate matter using EPA Method 29) consists of the sum of mercury (Hg), cadmium (Cd), and lead (Pb) emissions.

MWC Metals PSEL = Hg + Cd + Pb = 0.018 + 0.0016 + 0.004 = 0.0236 tons/year, which is less than the de minimis level of 1 ton/year, thus no PSEL is required to be set.

Pollutant: Pb

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.000006 lb/klb steam	1987 and 1996 – 2005 source tests	0.004
			Total Pb	0.004

Note: Emissions less than de minimis value of 0.1 tons, thus no PSEL is required.

Pollutant: F

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.00016 lb/klb steam	1986, 1996, and 1998 – 2001 source tests	0.104
			Total F	0.1

Note: Emissions less than de minimis value of 0.3 tons, thus no PSEL is required.

Pollutant: Municipal Waste Combustor Organics (PCDD/PCDF)

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	9.4 E-10 lb/klb steam	Verified Emission Factor (1986, 1991, and 1998 – 2005 source tests)	6.11 E-7
			Total MWC Organics	6.11 E-7

Note: The MWC Organics (Dioxins/Furans) proposed emission rate is greater than the de minimis value of 5.0E-7 and less than the significant emission rate of 3.5E-6; as such, the PSEL will be set at the generic emission level of 3.0E-6 tons per year.

OTHER POLLUTANTS OF INTEREST**Pollutant: HCl**

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.03 lb/klb steam	Verified Emission Factor (1986 – 2005 source tests)	19.5
			Total HCl	20

Pollutant: Hg

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.0000284 lb/klb steam	1998-2005 source tests	0.018
			Total Hg	0.018

Pollutant: Cd

Source	Production Parameter	Emission Factor	Reference	Emissions (tons/year)
MWC-FT	1,300,000 klb steam	0.0000025 lb/kb steam	1998 – 2005 source tests	0.0016
			Total Cd	0.0016