

August 31, 2020

Eric Holmes, City Manager  
City of Vancouver  
PO Box 1995  
Vancouver, WA 98668-1995

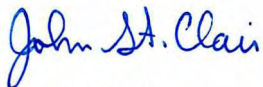
Re: Issuance of Final Title V Air Operating Permit SW97-1-R2A

Dear Mr. Holmes:

The Southwest Clean Air Agency (SWCAA) is issuing a final Title V Air Operating Permit SW97-1-R2A to the City of Vancouver Westside Wastewater Treatment plant in response to the administrative permit amendment request per WAC 173-401-720(3)(a) received on July 30, 2020. Copies of the final Title V Air Operating Permit and Title V Basis Statement are attached.

In addition, copies will be available on SWCAA's website under the 'Air Permits' section at <http://www.swcleanair.org/permits/title5final.asp>. If you have any questions or comments, please contact me at (360) 574-3058 ext. 127.

Sincerely,



John St.Clair  
Air Quality Engineer II

Enclosures: Title V Air Operating Permit and Title V Basis Statement

Cc: Doug Hardesty, Air Permit Program Lead, Air Permits & Toxics Branch, Air & Radiation Division, Region 10, U.S. EPA (via e-mail)



**City of Vancouver – Westside Water Treatment Plant**

**Title V Air Operating Permit  
SW97-1-R2A**

**August 27, 2020**

Southwest Clean Air Agency  
11815 NE 99th Street, Suite 1294  
Vancouver, WA 98682-2322  
Telephone: (360) 574-3058

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**AIR OPERATING PERMIT NUMBER:** SW97-1-R2A

**ISSUED TO:** City of Vancouver  
 PO Box 1995  
 Vancouver, WA 98668-1995

**PLANT SITE:** Westside Water  
 Treatment Plant  
 2323 W Mill Plain Boulevard  
 Vancouver, WA 98660

**NATURE OF BUSINESS:** Municipal Wastewater Treatment Plant

**STANDARD INDUSTRIAL CLASSIFICATION CODE:** 4952

**NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM CODE:** 221320

**AEROMETRIC INFORMATION RETRIEVAL SYSTEM NUMBER:** 53-011-00200

**EFFECTIVE DATE:** August 27, 2020

**EXPIRATION DATE:** January 25, 2021

**RENEWAL APPLICATION DUE DATE:** January 25, 2020

**PERMIT ENGINEER:**

John St. Clair  
 John St. Clair, Air Quality Engineer II

8/27/2020  
 Date

**REVIEWED**



Paul T. Mairose  
 Paul T. Mairose, Chief Engineer

8/27/2020  
 Date

Uri Papish  
 Uri Papish, Executive Director

8/27/2020  
 Date

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**I. ABBREVIATIONS**

## List of Acronyms

ADP .....	Air Discharge Permit	NAAQS .....	National Ambient Air Quality Standard
AOP .....	Air Operating Permit	NESHAP ...	National Emission Standards for Hazardous Air Pollutants
AP-42 .....	Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by the EPA	NSPS .....	New Source Performance Standard
ASIL .....	Acceptable Source Impact Level	ORP .....	Oxidation Reduction Potential
ATS .....	Air Treatment System	POTW .....	Publicly Owned Treatment Work
BACT .....	Best available control technology	PSD .....	Prevention of Significant Deterioration
BART .....	Best Available Retrofit Technology	PTE.....	Potential-to-Emit
CAM.....	Compliance Assurance Monitoring	RACT .....	Reasonably Available Control Technology
CEMS.....	Continuous Emission Monitoring System	RATA .....	Relative Accuracy Test Audit
CFR .....	Code of Federal Regulations	RCW.....	Revised Code of Washington
CGA .....	Cylinder Gas Audit	SIP .....	State Implementation Plan
EPA .....	U.S. Environmental Protection Agency	SQER .....	Small Quantity Emission Rate listed in WAC 173-460
EU .....	Emission Unit	SSI.....	Sewage Sludge Incinerator
FBI.....	Fluidized Bed Incinerator	Standard....	Standard conditions a temperature of 20 °C (68 °F) and a pressure of 29.92 inches (760 mm) Hg
FCAA .....	Federal Clean Air Act	SWCAA ....	Southwest Clean Air Agency
HAP .....	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act	T-BACT ....	Best Available Control Technology for toxic air pollutants
IEU .....	Insignificant Emission Unit	WAC .....	Washington Administrative Code
LAER .....	Lowest achievable emission rate	WAS.....	Waste Activated Sludge
MCM.....	Mercury Control Module	WSWTP ....	Westside Water Treatment Plant

List of Units and Measures

% v/v .....	Percent by volume	mg.....	Milligram (0.001 gram)
µg/m <sup>3</sup> .....	Microgram per cubic meter	mg/kg.....	Milligram per kilogram (equivalent to ppmw)
acfm.....	Actual cubic foot per minute	MGD .....	Million Gallons per Day
bhp.....	Brake horsepower	MMBtu.....	Million Btu
BOD <sub>5</sub> .....	5-day Biochemical Oxygen Demand	Pa.....	Pascal
dscf.....	Dry Standard cubic foot	pH.....	Negative log of the hydrogen ion concentration; pH = -log([H <sup>+</sup> ])
dscfm.....	Dry Standard cubic foot per minute	ppm.....	Parts per million
g/dscm .....	Grams per dry Standard cubic meter, dry	ppmv.....	Parts per million, by volume
g/s .....	Gram per second	ppmvd .....	Parts per million, by volume, dry
gpm.....	Gallon per minute	ppmw.....	Parts per million, by weight
gr/dscf.....	Grain per dry Standard cubic foot	psig .....	Pounds per square inch, gauge
iwc .....	Inches of water column	scfm .....	Standard cubic foot per minute
kPa.....	Kilopascal	tpy.....	Tons per year
Mg .....	Megagram (1,000,000 gram)		

List of Chemical Symbols, Formulas, and Pollutants

CH <sub>4</sub> .....	Methane	PM <sub>10</sub> .....	PM with an aerodynamic diameter ≤10 µm; total PM <sub>10</sub> includes both filterable PM <sub>10</sub> and condensable PM <sub>10</sub>
CO .....	Carbon monoxide	PM <sub>2.5</sub> .....	PM with an aerodynamic diameter ≤2.5 µm; total PM <sub>2.5</sub> includes both filterable PM <sub>2.5</sub> and condensable PM <sub>2.5</sub>
CO <sub>2</sub> .....	Carbon dioxide	SO <sub>2</sub> .....	Sulfur dioxide
CO <sub>2e</sub> .....	Carbon dioxide equivalent	SO <sub>x</sub> .....	Sulfur oxides
GHG .....	Greenhouse Gas	TAP .....	Toxic air pollutant pursuant to Chapter 173-460 WAC
H <sub>2</sub> S .....	Hydrogen sulfide	TGOC.....	Total Gaseous Organic Carbon
NO <sub>2</sub> .....	Nitrogen dioxide	THC.....	Total Hydrocarbons
NO <sub>x</sub> .....	Nitrogen oxides	TSP.....	Total Suspended Particulate
O <sub>2</sub> .....	Oxygen	TSS.....	Total Suspended Solids
O <sub>3</sub> .....	Ozone	VOC .....	Volatile organic compound
PM.....	Particulate Matter with an aerodynamic diameter <100 µm; PM, total includes both filterable PM and condensable PM		

Terms not otherwise defined in this Permit have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

**II. REGULATORY BASIS**

This Air Operating Permit (AOP), hereafter referred to as the "Permit", is authorized under the procedures established in Washington Administrative Code (WAC) 173-401 and Title V (US Code §7661 *et seq.*) of the Federal Clean Air Act (FCAA). As used in this Permit, "term", "condition", "standard", and "requirement" have the same meaning as "applicable requirement" specified under 40 CFR 70.2 and WAC 173-401-200.

The Permit is intended to contain a comprehensive list of the local, state, and federal air pollution regulations and standards applicable to the Permittee's facility and to assure and provide for certification of compliance with those requirements. As listed in Sections IV through VIII, the requirements describe the emissions limitations, operating requirements, ambient monitoring, recordkeeping requirements, and reporting frequencies for the facility and cite the originating local, state, or federal regulation or requirement. Federal requirements may be direct (e.g. FCAA or CFR citation) or established under the Washington State Implementation Plan (SIP). Each citation in the table also includes one or two effective dates of the cited regulation. Where there are two dates for the same regulatory citation, the underlying requirement is substantially the same, but the date of the regulation used for enforcement purposes would be different (e.g. federally enforceable versus SWCAA enforceable).

SWCAA is the primary authority that can enforce *all* requirements – federal, state, and local requirements – listed in the Permit. However, the EPA and private citizens may also take enforcement actions under the Permit for those requirements that are federally enforceable; federal regulations, regulations that have a SIP date, and terms of ADPs are federally enforceable. Rules, regulations, and permits that are not SIP approved or federally promulgated are not federally enforceable and are denoted as "*Local*" to indicate they are only enforceable by SWCAA.

For subparts of 40 CFR 60, 40 CFR 61, and 40 CFR 63 delegated to SWCAA by EPA, all monitoring, reporting, or recordkeeping that is required to be sent to the EPA Administrator shall only be sent to SWCAA as the delegated authority. For specific subparts that SWCAA has not been delegated implementation and enforcement authority by the EPA, all monitoring, reporting, or recordkeeping that is required to be sent to the EPA Administrator shall be sent to both SWCAA and the EPA Administrator.

<b>Federal Regulations</b>	<b>Regulation Version Effective Date</b>	<b>SWCAA Delegation Effective Date</b>
40 CFR 51	August 27, 2020	Not Delegated
40 CFR 52	August 27, 2020	Not Delegated
40 CFR 60 Subpart A [§§60.1–60.19]	August 27, 2020	July 1, 2019
40 CFR 60 Subpart O [§§60.150–60.156]	August 27, 2020	July 1, 2019
40 CFR 60 Subpart IIII [§§60.4200–60.4219]	August 27, 2020	July 1, 2019
40 CFR 61 Subpart A [§§61.01–61.19]	August 27, 2020	July 1, 2019

<b>Federal Regulations</b>	<b>Regulation Version Effective Date</b>	<b>SWCAA Delegation Effective Date</b>
40 CFR 61 Subpart E [§§61.50–61.56]	August 27, 2020	July 1, 2019
40 CFR 61 Subpart M [§§61.140–61.157]	August 27, 2020	July 1, 2019
40 CFR 63 Subpart A [§§63.1–63.16]	August 27, 2020	July 1, 2019
40 CFR 63 Subpart ZZZZ [§§63.6580–63.6675]	August 27, 2020	July 1, 2019 (Title V only)
40 CFR 68	August 27, 2020	Not Delegated
40 CFR 82 Subpart B [§§82.30–82.42]	August 23, 2019	Not Delegated
40 CFR 82 Subpart F [§§82.150–82.169]	August 27, 2020	Not Delegated

State and local regulations may have both an effective date that is included in the SIP and different effective date as *Local* only requirements.

<b>State Regulations</b>	<b>SIP Regulation Version Effective Date</b>	<b>State Regulation Version Effective Date</b>
WAC 173-400-117	December 29, 2012	October 25, 2018
WAC 173-400-171	July 1, 2016	October 25, 2018
WAC 173-400-700	April 1, 2011	October 25, 2018
WAC 173-401	—	September 16, 2018
WAC 173-441	—	October 16, 2016
WAC 173-476	December 22, 2013	July 1, 2016

<b>SWCAA Regulations</b>	<b>SIP Regulation Version Effective Date</b>	<b>SWCAA Regulation Version Effective Date</b>
40 CFR 503 <sup>1</sup>	—	July 1, 2019
WAC 173-460 <sup>2</sup>	—	August 21, 1998
SWCAA 400-030	October 9, 2016 <sup>3</sup>	March 21, 2020
SWCAA 400-036	October 9, 2016	March 21, 2020
SWCAA 400-040	October 9, 2016 <sup>4</sup>	March 21, 2020
SWCAA 400-040(1)(a)	September 21, 1995	March 21, 2020

<sup>1</sup> 40 CFR 503 regulations are federally enforceable under the Federal Clean Water Act but are not federally enforceable under the authority of the FCAA or this Permit. Because 40 CFR 503 regulations have been incorporated by reference under SWCAA 400-070(9) and are integrated into ADP 18-3302, they are applicable requirements under the definition in WAC 173-401-200(4)(c) and are enforceable under this Permit by SWCAA only.

<sup>2</sup> Note that a newer version of WAC 173-460 has been published, however it has not been adopted by SWCAA. The version being enforced by SWCAA was effective August 21, 1998.

<sup>3</sup> except SWCAA 400-030 sections (21) and (129).

<sup>4</sup> except SWCAA 400-040 sections (1)(a), (1)(c), (1)(d), (2), and (4).



SWCAA Regulations	SIP Regulation Version Effective Date	SWCAA Regulation Version Effective Date
SWCAA 400-050	October 9, 2016 <sup>5</sup>	March 21, 2020
SWCAA 400-060	October 9, 2016	March 21, 2020
SWCAA 400-070	October 9, 2016 <sup>6</sup>	March 21, 2020
SWCAA 400-070(2)(a)	September 25, 1995	March 21, 2020
SWCAA 400-072	October 9, 2016 <sup>7</sup>	March 21, 2020
SWCAA 400-075	—	March 21, 2020
SWCAA 400-076	—	March 21, 2020
SWCAA 400-081	October 9, 2016	March 21, 2020
SWCAA 400-091	October 9, 2016	March 21, 2020
SWCAA 400-100	—	March 21, 2020
SWCAA 400-103	—	March 21, 2020
SWCAA 400-105	October 9, 2016 <sup>8</sup>	March 21, 2020
SWCAA 400-106	October 9, 2016 <sup>9</sup>	March 21, 2020
SWCAA 400-107	September 21, 1995	March 21, 2020
SWCAA 400-109	October 9, 2016 <sup>10</sup>	March 21, 2020
SWCAA 400-110	October 9, 2016 <sup>11</sup>	March 21, 2020
SWCAA 400-111	October 9, 2016 <sup>12</sup>	March 21, 2020
SWCAA 400-114	November 9, 2003	March 21, 2020
SWCAA 400-115	—	March 21, 2020
SWCAA 400-116	November 9, 2003	March 21, 2020
SWCAA 400-120	—	March 21, 2020
SWCAA 400-130	October 9, 2016	March 21, 2020
SWCAA 400-141	—	March 21, 2020
SWCAA 400-151	November 9, 2003	March 21, 2020
SWCAA 400-161	March 18, 2001	March 21, 2020
SWCAA 400-171	October 9, 2016 <sup>13</sup>	March 21, 2020
SWCAA 400-200	October 9, 2016	March 21, 2020
SWCAA 400-205	March 18, 2001	March 21, 2020
SWCAA 400-270	—	March 21, 2020
SWCAA 400, Appendix A	October 9, 2016	March 21, 2020

<sup>5</sup> except SWCAA 400-050 sections (3), (5), and (6).

<sup>6</sup> except SWCAA 400-070 sections (2)(a), (3)(b), (5), (6), (7), (8)(c), (9), (10), (11), (12), (14), and (15)(c).

<sup>7</sup> except SWCAA 400-072 sections (5)(a)(ii)(B), (5)(d)(ii)(B), (5)(d)(iii)(A), (5)(d)(iii)(B), and all reporting requirements related to TAPs listed in WAC 173-460, including HAPs.

<sup>8</sup> except reporting requirements related to TAPs listed in WAC 173-460, including HAPs.

<sup>9</sup> except SWCAA 400-106 sections (1)(d), (1)(e), (1)(f), (1)(g) and (2).

<sup>10</sup> except the TAPs thresholds in SWCAA 400-109 sections (3)(d), (3)(e)(ii), and (4).

<sup>11</sup> except SWCAA 400-110(1)(d).

<sup>12</sup> except SWCAA 400-111(7).

<sup>13</sup> except SWCAA 400-171(2)(a)(xii).

<b>SWCAA Regulations</b>	<b>SIP Regulation Version Effective Date</b>	<b>SWCAA Regulation Version Effective Date</b>
SWCAA 425	—	June 18, 2017
SWCAA 476	—	March 22, 2020

The Air Discharge Permit (ADP) listed in the table below was issued under state/local authority and a federally-approved new source review program; therefore, the terms of this permit is federally enforceable, unless otherwise identified. The following table lists the currently active ADP; there are no Prevention of Significant Deterioration (PSD) permits or regulatory orders applicable to this facility.

<b>Minor New Source Review</b>	<b>Effective Date</b>
ADP 18-3302	June 18, 2020

**III. EMISSION UNIT IDENTIFICATION**

The following emission units or processes and control equipment have been identified at the facility. The EU Number will be used throughout the remainder of the Permit to identify the emission unit or process and any associated control equipment.

<b>EU No.</b>	<b>Generating Equipment or Activity</b>	<b>Emission Control</b>	<b>CAM Applicable</b>
01	Fluidized Bed Incinerator, US Filter/Zimpro	NO <sub>x</sub> : None CO: None PM, VOC: Venturi scrubber, Tray Scrubber, Mist Eliminator SO <sub>2</sub> : None Hg: Mercury Control Module	No
02	Sand Silo	PM: Bin Vent Filter	No
03	Air Treatment System, Packed Tower Scrubber	VOC, H <sub>2</sub> S: Packed Tower Wet Scrubber and Mist Eliminator	No
04	Wastewater Treatment Fugitives	None	No
05	Emergency Generator Engine #1, 1005 bhp Caterpillar Model 3508 (s/n 23Z01743)	SO <sub>2</sub> : Ultra-low Sulfur Fuel Oil	No
06	Emergency Generator Engine #2, 1005 bhp Caterpillar Model 3508 (s/n 23Z01742)	SO <sub>2</sub> : Ultra-low Sulfur Fuel Oil	No
07	Emergency Generator Engine #3, 1095 bhp Caterpillar Model 3508 (s/n 23Z07097)	SO <sub>2</sub> : Ultra-low Sulfur Fuel Oil	No
08	Emergency Pump Engine #1, 475 bhp, Caterpillar model C-15 (s/n MCW12333)	SO <sub>2</sub> : Ultralow Sulfur Fuel Oil	No
09	Emergency Pump Engine #2, 475 bhp, Caterpillar model C-15 (s/n MCW12333)	SO <sub>2</sub> : Ultralow Sulfur Fuel Oil	No
10	Industrial Pre-treatment Lagoon	None	No

**IV. PERMIT PROVISIONS**

**P01. Credible Evidence** **40 CFR 60.11**  
**40 CFR 61.12**

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For the purposes of submitting compliance certifications or establishing whether a violation of any term or condition of this Permit has occurred or is occurring, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the Permittee would have been in compliance with a specific term or condition if the appropriate performance or compliance test or procedure would have been performed.

**P02. Confidentiality of Records and Information** **WAC 173-401-500(5)**  
**WAC 173-401-620(2)(e)**  
**SWCAA 400-270 (Local)**

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The Permittee is responsible for clearly identifying information that is considered proprietary and confidential prior to submittal to SWCAA. Requests for proprietary and confidential information shall be released only after legal opinion by SWCAA's legal counsel and notice to the Permittee of the intent to release or deny the release of information [SWCAA 400-270].

In the case where the Permittee has submitted information to SWCAA under a claim of confidentiality, SWCAA may also require the source to submit a copy of such information directly to the EPA [WAC 173-401-500(5)].

Upon request, the Permittee must also furnish to SWCAA copies of records required to be kept by the Permittee or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA along with a claim of confidentiality. SWCAA will maintain confidentiality of such information in accordance with Revised Code of Washington (RCW) 70.94.205 [WAC 173-401-620(2)(e)].

**P03. Insignificant Emission Unit – Permit Revision** **WAC 173-401-530(6)**

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Any emission unit or activity that qualifies as insignificant solely on the basis of provisions in WAC 173-401-530(1)(a) shall not exceed the emissions thresholds specified in WAC 173-401-530(4) until this Permit is modified pursuant to WAC 173-401-725.

**P04. Standard Conditions** **WAC 173-401-620(2)**  
**SWCAA 400-103 (Local)**

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- (a) *Duty to comply.* The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of RCW 70.94 and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application [WAC 173-401-620(2)(a)].
- (b) *Need to halt or reduce activity not a defense.* It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit [WAC 173-401-620(2)(b)].

- (c) *Permit actions.* This Permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, a notification of planned changes or anticipated noncompliance does not stay any Permit condition [WAC 173-401-620(2)(c)].
- (d) *Property rights.* This Permit does not convey any property rights of any sort, or any exclusive privilege [WAC 173-401-620(2)(d)].
- (e) *Duty to provide information.* The Permittee shall furnish to SWCAA, within a reasonable time, any information that SWCAA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall also furnish to SWCAA copies of records required to be kept by the Permittee or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA along with a claim of confidentiality. SWCAA will maintain confidentiality of such information in accordance with RCW 70.94.205 [WAC 173-401-620(2)(e)].
- (f) *Permit fees.* The Permittee shall pay fees in accordance with RCW 70.94.162 and SWCAA 400-103(1) as a condition of this Permit in accordance with SWCAA 400-103. Failure to pay fees in a timely fashion shall subject the Permittee to civil and criminal penalties as prescribed in SWCAA 400-103(9), RCW 70.94.430, and RCW 70.94.431 [WAC 173-401-620(2)(f), SWCAA 400-103].
- (g) *Emissions trading.* No Permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Permit [WAC 173-401-620(2)(g)].
- (h) *Severability.* If any provision of this Permit is held to be invalid, all unaffected provisions of the Permit shall remain in effect and be enforceable [WAC 173-401-620(2)(h)].
- (i) *Permit appeals.* This Permit or any conditions in it may be appealed only by filing an appeal with the Pollution Control Hearings Board and serving it on SWCAA within thirty (30) calendar days of receipt of the Permit pursuant to RCW 43.21B.310. This provision for appeal is separate from and additional to any federal rights to petition and review under FCAA Section 505(b) [WAC 173-401-620(2)(i)].
- (j) *Permit continuation.* This Permit and all terms and conditions contained herein shall not expire until the renewal Permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal Permit has been issued or denied if a timely and complete application has been submitted [WAC 173-401-620(2)(j)].

#### **P05. Federally Enforceable Requirements**

**WAC 173-401-625**

All terms and conditions in this Permit, including any provisions designed to limit a source's potential to emit, are enforceable by the EPA and citizens under the FCAA.

Notwithstanding the above, any terms and conditions included in this Permit that are not required under the FCAA or under any of its applicable requirements are specifically designated as "*Local*" and are not federally enforceable under the FCAA. Terms and conditions so designated are not subject to the EPA and affected states review requirements of WAC 173-401-700 through WAC 173-401-820.

**P06. Permit Shield****WAC 173-401-640**

Compliance with the conditions of this Permit shall be deemed compliance with any applicable requirements as of the date of Permit issuance provided such applicable requirements are included and are specifically identified in this Permit. This provision does not apply to any insignificant emissions units or activities designated under WAC 173-401-530. Nothing in this Permit shall alter or affect the following:

- (a) The provisions of FCAA Section 303 (emergency orders), including the authority of the EPA under that section;
- (b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of Permit issuance;
- (c) The applicable requirements of the acid rain program, consistent with FCAA Section 408(a);
- (d) The ability of the EPA to obtain information from a source pursuant to FCAA Section 114; and
- (e) The ability of SWCAA to establish or revise requirements for the use of reasonably available control technology (RACT) as defined in RCW 70.94.030(19).

**P07. Emergency Provision****WAC 173-401-645**

An "emergency" as defined in WAC 173-401-645(1) shall constitute an affirmative defense to an action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) An emergency occurred and that the Permittee can identify the causes(s) of the emergency [WAC 713-401-645(3)(a)];
- (b) The permitted facility was at the time being properly operated [WAC 713-401-645(3)(b)];
- (c) During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the Permit [WAC 713-401-645(3)(c)]; and
- (d) The Permittee submitted notice of the emergency to SWCAA within two business days of the time when emission limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615(3)(b) unless the excess emissions represent a potential threat to human health and safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken [WAC 713-401-645(3)(d)].

Burden of proof lies with the Permittee [WAC 713-401-645(4)].

**P08. Permit Expiration – Application Shield****WAC 173-401-710(3)**

Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the Permit shall remain in effect after the Permit expires if a timely and complete permit application has been submitted. Operation under the terms and conditions of the expired Permit will be allowed until SWCAA takes final action on the renewal application.

**P09. Permit Revocation****WAC 173-401-710(4)**

SWCAA may revoke a Permit only upon the request of the Permittee or for cause. SWCAA will provide at least thirty (30) calendar days' written notice to the Permittee prior to revocation of the Permit or denial of a Permit renewal application. Such notice will include an explanation of the basis for the proposed action and afford the Permittee an opportunity to meet with SWCAA prior to the authority's final decision. A revocation issued under WAC 173-401-710(4) may be issued conditionally with a future effective date and may specify that the revocation will not take effect if the Permittee satisfies the specified conditions before the effective date.

**P10. Changes not Requiring Permit Revision/Off Permit Changes****WAC 173-401-722****WAC 173-401-724**

The Permittee may make changes described in WAC 173-401-722 and WAC 173-401-724 without revising this Permit, provided that the changes satisfy the criteria set forth in those sections, including the requirements to notify SWCAA and the EPA. Changes made by the Permittee may or may not qualify for a Permit shield under WAC 173-401-722 and changes under WAC 173-401-724 do not qualify for a Permit shield.

**P11. Reopenings for Cause****WAC 173-401-730**

This Permit shall be reopened and revised under any of the following circumstances:

- (a) Additional applicable requirements become applicable to a major source with a remaining Permit term of three (3) or more years. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the Permit is due to expire, unless the original Permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);
- (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the EPA, excess emissions offset plans shall be deemed to be incorporated into the Permit;
- (c) SWCAA or the EPA determines that the Permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Permit; or
- (d) SWCAA or the EPA determines that the Permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue this Permit shall follow the same procedures as apply to initial Permit issuance and shall affect only those parts of the Permit for which cause to reopen exists. Reopenings under WAC 173-401-730 shall not be initiated before a notice of such intent is provided to the Permittee by SWCAA. Such notice shall be made at least thirty (30) calendar days in advance of the date that the Permit is to be reopened, except that SWCAA may provide a shorter period in the case of an emergency.

**P12. Unavoidable Excess Emissions****SWCAA 400-107(2)**

The provisions of SWCAA 400-107 do not apply to federal standards, emission limits or standards contained in a PSD permit issued solely by the EPA, or to any event that causes a monitored exceedance of any relevant ambient air quality standard.

Excess emissions which the owner or operator wishes to be considered as unavoidable, shall be reported to SWCAA as soon as possible, but no later than forty-eight (48) hours after discovery. The owner or operator of a "source" shall have the burden of proving to SWCAA or decision-making authority in an enforcement action that excess emissions were unavoidable.

- (a) *Startup or shutdown.* Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the "source" reports as required under SWCAA 400-107(1) and adequately demonstrates that:
- (1) Excess emissions could not have been prevented through careful planning and design;
  - (2) Startup or shutdown was done as expeditiously as practicable;
  - (3) All emission monitoring systems were kept in operation unless their shutdown was necessary to prevent loss of life, personal injury, or severe property damage;
  - (4) The emissions were minimized consistent with safety and good air pollution control practice during the startup or shutdown period;
  - (5) If a bypass of control equipment occurs, that such bypass was necessary to prevent loss of life, personal injury, or severe property damage; and
  - (6) Excess emissions that occur due to upsets or malfunctions during routine startup or shutdown are treated as upsets or malfunctions under section (c) below.
- (b) *Maintenance.* Excess emissions due to scheduled maintenance shall be considered unavoidable if the "source" reports as required under section (1) of SWCAA 400-107 and adequately demonstrates that the excess emissions could not have been avoided through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.
- (c) *Upsets or malfunctions.* Excess emissions due to upsets or equipment malfunctions shall be considered unavoidable provided the Permittee reports as required under SWCAA 400-107(1) and adequately demonstrates that:
- (1) The event was not caused by poor or inadequate design, operation, or maintenance, or any other reasonably preventable conditions;
  - (2) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;
  - (3) The operator took immediate and appropriate corrective action in a manner consistent with safety and good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded;
  - (4) All emission monitoring systems and pollution control systems were kept operating to the extent possible unless their shutdown was necessary to prevent loss of life, personal injury, or severe property damage; and
  - (5) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent possible.



**V. GENERAL TERMS AND CONDITIONS**

**G01. Asbestos** **40 CFR 61 Subpart M (§61.140 *et seq.*)**  
**SWCAA 400-075 (*Local*)**  
**SWCAA 476 (*Local*)**

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The Permittee shall comply with the provisions of SWCAA 476 "Standards for Asbestos Control, Demolition and Renovation" when conducting any renovation, demolition, or asbestos storage activities at the facility.

**G02. Chemical Accident Prevention** **40 CFR 68**

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The Permittee shall comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR 68 no later than the following dates:

- (a) Three years after the date on which a regulated substance, present above the threshold quantity, is first listed under 40 CFR 61.130; or
- (b) The date on which a regulated substance is first present above a threshold quantity in a process under 40 CFR 68.10.

**G03. Protection of Stratospheric Ozone** **40 CFR 82 Subpart B (§82.30 *et seq.*)**  
**40 CFR 82 Subpart F (§82.150 *et seq.*)**

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The Permittee shall comply with the standards for recycling and emissions reduction as provided in 40 CFR 82 Subpart B (§82.30 *et seq.*) and Subpart F (§82.150 *et seq.*).

**G04. Duty to Supplement or Correct Application** **WAC 173-401-500(6)**

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The Permittee, upon becoming aware that relevant facts were omitted or incorrect information was submitted in a Permit application, shall promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft Permit.

**G05. Certification** **40 CFR 63.6650(c)(2)**  
**WAC 173-401-520**

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All application forms, reports, and compliance certifications must be certified by a responsible official. Certification shall state that, based on information and belief formed after reasonable inquiry, the statements, and information contained in the submittal are true, accurate, and complete.

**G06. Inspection and Entry** **WAC 173-401-630(2)**  
**SWCAA 400-105(2) and (3)**

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The Permittee shall allow inspection and entry, upon presentation of credentials and other documents as may be required by law, by SWCAA or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Permit; and
- (d) As authorized by SWCAA 400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the Permit or applicable requirements.

**G07. Emission Testing and Monitoring****SWCAA 400-106**

SWCAA may conduct or require that emission testing be conducted of any "source" or emission unit within the jurisdiction of the Agency to determine compliance, evaluate control equipment performance, evaluate RACT or quantify emissions [SWCAA 400-106(a)].

The Permittee must provide the necessary platform and sampling ports for Agency personnel or others to perform a test of an emission unit. SWCAA must be allowed to obtain a sample from any emission unit. The operator of the "source" will be given an opportunity to observe the sampling and to obtain a sample at the same time [SWCAA 400-106(c)].

**G08. Schedule of Compliance****WAC 173-401-630(3)**

The Permittee shall continue to comply with all applicable requirements with which the source is currently in compliance and meet on a timely basis any applicable requirements that become effective during the Permit term. The Permittee must comply with any approved schedule of compliance in accordance with WAC 173-401-510(2)(h)(iii).

**G09. Permit Renewal Application****WAC 173-401-710(1) and (3)**

The Permittee shall submit a complete Permit renewal application to SWCAA no later than the date established below. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the Permit will remain in effect after the Permit expires if a timely and complete Permit application has been submitted.

This Permit expires on **January 25, 2021**. A renewal application is due on **January 25, 2020** and a complete application must be received no later than **July 25, 2020**.

**G10. Transfer of Ownership or Operational Control****WAC 173-401-720**

A change in Permittee due to transfer of ownership or operational control of an affected source requires a request for administrative permit amendment as governed by WAC 173-401-720(1)(d).

**G11. Reporting of Emissions of Greenhouse Gases****WAC 173-441 (Local)**

WAC 173-441 requires owners and operators of affected facilities to quantify and report emissions of greenhouse gases from applicable source categories listed in WAC 173-441-120. This regulation applies to any facility located in Washington State with total greenhouse gas emissions of ten thousand metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) or more per calendar year. The Permittee must

prepare and submit greenhouse gas reports to Ecology for each affected facility. All requests, notifications, and communications to Ecology pursuant to chapter 173-441 WAC, other than submittal of the annual GHG report, must be submitted to the following address:

Greenhouse Gas Report  
Air Quality Program, Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

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**G12. Misrepresentation and Tampering** **SWCAA 400-105(5) and (6)**

The Permittee must not make any false material statement, representation or certification in any form, notice, or report required under RCW 70.94 or 70.120, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.

The Permittee must not render inaccurate any monitoring device or method required under RCW 70.94 or 70.120, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

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**G13. Emission Testing and Monitoring** **SWCAA 400-106**

SWCAA may conduct or require that emission testing be conducted of any "source" or emission unit within SWCAA's jurisdiction to determine compliance, evaluate control equipment performance, evaluate RACT, or quantify emissions.

The Permittee must provide the necessary platform and sampling ports for SWCAA personnel or others to perform a test of an emission unit. SWCAA must be allowed to obtain a sample from any emission unit. The Permittee must be given an opportunity to observe the sampling and to obtain a sample at the same time.

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**G14. Portable Sources** **SWCAA 400-036**  
**SWCAA 400-110(6)**

Portable sources which locate temporarily at the facility shall be allowed to operate at the temporary location without filing an ADP application provided that:

- (a) The source/emission units are registered with SWCAA;
- (b) The source/emission units have an ADP to operate as a portable source;
- (c) The owner(s) or operator(s) notifies SWCAA of the intent to operate at the new location at least ten (10) business days prior to starting the operation;
- (d) The owner(s) or operator(s) supplies sufficient information including production quantities and hours of operation, to enable SWCAA to determine that the operation will comply with the emission standards for a new source, and will not cause a violation of applicable ambient air quality standards and, if in a nonattainment area, will not interfere with scheduled attainment of ambient standards; and
- (e) Portable sources that do not have a valid ADP issued by SWCAA, but do have a valid approval issued by a Washington air pollution control authority after July 1, 2010, may operate within SWCAA jurisdiction without filing an air discharge permit application pursuant to SWCAA

400-109 or obtaining an air discharge permit pursuant to SWCAA 400-110 provided the requirements of SWCAA 400-036 are met.

**G15. New Source Review**

**WAC 173-400-117**  
**WAC 173-400-700**  
**WAC 173-460-040 (Local)**  
**SWCAA 400-072**  
**SWCAA 400-076**  
**SWCAA 400-109**  
**SWCAA 400-110**  
**SWCAA 400-820**

The Permittee must submit an application and approval must be issued or written confirmation of exempt status must be received before commencing construction of the proposed installations, modifications, changes, or alternations. Alternatively, for sources meeting the category criteria in SWCAA 400-072, the Permittee may submit a Small Unit Notification and begin installation after SWCAA has confirmed compliance with the provisions of SWCAA 400-072 in writing. Portable sources may be exempt from this requirement if they fulfill the criteria described in G14.

**G16. Replacement or Substantial Alteration of Emission Control Technology at an Existing Stationary Source** **SWCAA 400-114**

Prior to replacing or substantially altering emission control technology installed at an existing stationary source or emission unit, the Permittee shall file an ADP application with SWCAA. Construction shall not commence on a project subject to review until SWCAA issues a final ADP or other regulatory order. However, any ADP application filed under this section shall be deemed to be approved without conditions if SWCAA takes no action within thirty (30) calendar days of receipt of a complete application.

**G17. Process Equipment** **SWCAA 400-116(1)**

Any process equipment, including features, machines, and devices constituting parts of or called for by plans, specifications, or other information submitted for approval or required as part of an approval, such as an ADP, shall be maintained and operate in good working order. SWCAA reserves the right to take any and all appropriate action to maintain compliance with approval conditions, including directing the facility to cease operations of defective or malfunctioning equipment until corrective action can be completed.

**G18. Pollution Control Equipment** **SWCAA 400-116(2)**

Any equipment that serves as air contaminant control or capture equipment shall be maintained and operate in good working order at all times in accordance with good operations and maintenance practices and in accordance with SWCAA's approval conditions. SWCAA reserves the right to take any and all appropriate action to maintain compliance with approval conditions, including directing the facility to cease operations of defective or malfunctioning equipment until corrective action can be completed.

**G19. Adjustment for Atmospheric Conditions**

**SWCAA 400-205**

Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations as specified at SWCAA 400-230(5).

**G20. Outdoor Burning**

**SWCAA 425 (*Local*)**

The Permittee is prohibited from conducting outdoor burning except as allowed by SWCAA 425.

**VI. OPERATING TERMS AND CONDITIONS**

The following table lists federal, state, and locally enforceable requirements applicable to the Permittee. The effective date for each applicable requirement is listed in Section II, which also describes the enforceability of the term. Those specific requirements that are enforceable only by SWCAA are denoted with "*Local*". Any requirement with "Facility-wide" listed in the Emission Unit column, applies universally to all emission units or activities, regardless of whether identified as an EU or an IEU. Monitoring requirements are used to provide a reasonable assurance of compliance with the applicable requirements and may or may not involve the use of a reference test method.

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-01	<p>Permittee shall not cause or permit the emission for more than three (3) minutes, in any one (1) hour, of an air contaminant from any emission unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent (20%) opacity except during soot blowing and grate cleaning as provided in SWCAA 400-040.</p> <p style="text-align: center;"><u>Reference Methods</u>                      SWCAA 400 Appendix A Method 9                      40 CFR 60 Appendix A Method 9</p> <p style="text-align: center;">SWCAA 400-040(1)(a) and (b)</p>	Facility-wide	M01 M02 M10
Req-02	<p>Permittee shall not cause or permit the emission of particulate matter (PM) from any stationary source to be deposited beyond the property under direct control of the owner or operator of the stationary source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.</p> <p style="text-align: center;">SWCAA 400-040(2) (<i>Local</i>)</p>	Facility-wide	M02 M03
Req-03	<p>Reasonable precautions must always be taken to prevent and minimize fugitive emissions from facility operations.</p> <p style="text-align: center;">SWCAA 400-040(3)(a)                      ADP 18-3302 Condition 12</p>	Facility-wide	M02 M03
Req-04	<p>Recognized good practice and procedures must be used to reduce odors to a reasonable minimum.</p> <p style="text-align: center;">SWCAA 400-040(4) (<i>Local</i>)                      ADP 18-3302 Condition 13 (<i>Local</i>)</p>	Facility-wide	M03

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-05	<p>All exhausts must be discharged vertically into the ambient air above the level of the building roof. Any device that obstructs or prevents vertical discharge is prohibited.</p> <p style="text-align: center;">SWCAA 400-200(1) ADP 18-3302 Condition 14</p>	<p>EU-01 EU-02 EU-03 EU-08 EU-09</p>	<p>M04</p>
Req-06	<p>Permittee shall not cause or permit the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.</p> <p style="text-align: center;">SWCAA 400-040(5)</p>	<p>Facility-wide</p>	<p>M02 M03</p>
Req-07	<p>Permittee shall not cause or permit the emission of a gas containing sulfur dioxide (SO<sub>2</sub>) from any emission unit in excess of 1,000 ppmvd of SO<sub>2</sub>, corrected to 7% oxygen (O<sub>2</sub>) or 12% carbon dioxide (CO<sub>2</sub>) as required by the applicable emission standard for combustion sources, and based on the average of any period of sixty (60) consecutive minutes.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 6</p> <p style="text-align: center;">SWCAA 400-050(4) SWCAA 400-040(6)</p>	<p>Facility-wide</p>	<p>M04</p>
Req-08	<p>No person shall cause or permit the installation or use of any means that conceals or masks an emission of an air contaminant which would otherwise violate any provisions of SWCAA 400-040.</p> <p style="text-align: center;">40 CFR 60.12 40 CFR 63.4(b) SWCAA 400-040(7)</p>	<p>Facility-wide</p>	<p>M04</p>

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-09	<p>Permittee shall take reasonable precautions to prevent fugitive dust from any source becoming airborne and shall maintain and operate the source to minimize emissions.</p> <p style="text-align: center;">SWCAA 400-040(8)(a)</p>	Facility-wide	M02 M03
Req-10	<p>Permittee shall not cause or permit emissions of PM from a combustion or incineration emissions unit in excess 0.23 g/dscm (0.1 gr/dscf) of exhaust gas at standard conditions and corrected to the appropriate O<sub>2</sub> concentration.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 5</p> <p style="text-align: center;">SWCAA 400-050(1)</p>	Facility-wide	M01
Req-11	<p>Permittee shall not cause or permit emissions of particulate material from a general process unit in excess 0.23 g/dscm (0.1 gr/dscf) of exhaust gas at standard conditions.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 5</p> <p style="text-align: center;">SWCAA 400-060</p>	Facility-wide	M01



Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring																
Req-12	<p>Combined emissions from the facility must not exceed any of the following:</p> <table border="1" data-bbox="354 380 959 684"> <thead> <tr> <th>Pollutant</th> <th>Emission Limit</th> </tr> </thead> <tbody> <tr> <td>NO<sub>x</sub></td> <td>39.48 tpy</td> </tr> <tr> <td>CO</td> <td>24.54 tpy</td> </tr> <tr> <td>VOC</td> <td>71.73 tpy</td> </tr> <tr> <td>PM<sub>10</sub>, total</td> <td>7.04 tpy</td> </tr> <tr> <td>PM<sub>2.5</sub>, total</td> <td>7.03 tpy</td> </tr> <tr> <td>SO<sub>2</sub></td> <td>15.75 tpy</td> </tr> <tr> <td>chloroform</td> <td>0.0555 tpy</td> </tr> </tbody> </table> <p>These emission limits are 12-month rolling sums calculated consistent with Appendix C.</p> <p style="text-align: center;">ADP 18-3302 Condition 1</p>	Pollutant	Emission Limit	NO <sub>x</sub>	39.48 tpy	CO	24.54 tpy	VOC	71.73 tpy	PM <sub>10</sub> , total	7.04 tpy	PM <sub>2.5</sub> , total	7.03 tpy	SO <sub>2</sub>	15.75 tpy	chloroform	0.0555 tpy	Facility-wide	M05 M06 M07 M08 M09 M11 M12 M13 M14
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Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring																											
Req-13	<p>Emissions from the Fluidized Bed Incinerator (FBI), while operating in Burn Event Mode, must not exceed any of the following:</p> <table border="1" data-bbox="277 395 1039 736"> <thead> <tr> <th colspan="3" data-bbox="699 395 927 427">Emission Limits</th> </tr> <tr> <th data-bbox="370 431 505 463">Pollutant</th> <th data-bbox="618 431 781 463">Long-Term</th> <th data-bbox="841 431 1008 463">Short-Term</th> </tr> </thead> <tbody> <tr> <td data-bbox="285 470 354 502">NO<sub>x</sub></td> <td data-bbox="643 470 756 502">30.14 tpy</td> <td data-bbox="862 470 987 502">80 ppmvd</td> </tr> <tr> <td data-bbox="285 506 326 538">CO</td> <td data-bbox="643 506 756 538">22.91 tpy</td> <td data-bbox="862 506 1003 538">100 ppmvd</td> </tr> <tr> <td data-bbox="285 542 529 574">VOC (as propane)</td> <td data-bbox="643 542 756 574">18.05 tpy</td> <td data-bbox="862 542 987 574">50 ppmvd</td> </tr> <tr> <td data-bbox="285 578 440 610">PM<sub>10</sub>, total</td> <td data-bbox="643 578 756 610">6.75 tpy</td> <td data-bbox="841 578 1019 610">0.015 gr/dscf</td> </tr> <tr> <td data-bbox="285 614 440 646">PM<sub>2.5</sub>, total</td> <td data-bbox="643 614 756 646">6.75 tpy</td> <td data-bbox="911 614 943 646">—</td> </tr> <tr> <td data-bbox="285 651 342 683">SO<sub>2</sub></td> <td data-bbox="643 651 756 683">15.73 tpy</td> <td data-bbox="862 651 987 683">30 ppmvd</td> </tr> <tr> <td data-bbox="285 687 529 719">hydrogen chloride</td> <td data-bbox="643 687 756 719">1.50 tpy</td> <td data-bbox="846 687 1003 719">5.02 ppmvd</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Appendix C. The short-term emission limits are determined as a 1-hr average, corrected to 7% O<sub>2</sub>. Burn Event Mode is defined as the period between Start-Up Mode and Shut Down Mode when the FBI is primarily fired on sludge. A clock hour of operation is the period of sixty (60) consecutive minutes starting at minute zero of the hour.</p> <p style="text-align: center;"><u>Reference Methods</u>                      40 CFR 60 Appendix A Method 7E, 40 CFR 60 Appendix A Method 5 and Method 202, 40 CFR 60 Appendix A Method 6, and 40 CFR 60 Appendix A Method 25A (measured as propane)</p> <p style="text-align: center;">SWCAA 400-050(3)(a)                      SWCAA 400-050(4)                      ADP 18-3302 Condition 2</p>	Emission Limits			Pollutant	Long-Term	Short-Term	NO <sub>x</sub>	30.14 tpy	80 ppmvd	CO	22.91 tpy	100 ppmvd	VOC (as propane)	18.05 tpy	50 ppmvd	PM <sub>10</sub> , total	6.75 tpy	0.015 gr/dscf	PM <sub>2.5</sub> , total	6.75 tpy	—	SO <sub>2</sub>	15.73 tpy	30 ppmvd	hydrogen chloride	1.50 tpy	5.02 ppmvd	EU-01	M05 M06 M09
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Req-14	<p>The emission rate of PM<sub>10</sub>, filterable only, from the FBI must not exceed 0.40 lb/dry ton of sludge feed as a 1-hr average.</p> <p style="text-align: center;">40 CFR 60.152(a)(1)                      ADP 18-3302 Condition 3</p>	EU-01	M06																											

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring																							
Req-15	<p>Short-term CO emissions from the FBI while operating in Start-Up Mode, Heat-to-Burn Mode, and Heat-to-Bottle Mode must not exceed 100 ppmvd determined as a 2-hr average, corrected to 7% O<sub>2</sub> and 0% moisture. Start-up Mode is defined as the period beginning with the first operation of the sludge feed pump and ends when two (2) clock hours of sludge feed have elapsed. A clock hour of operation is the period of sixty (60) consecutive minutes starting at minute zero of the hour.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 10</p> <p style="text-align: center;">40 CFR 503.40(c)(2) (<i>Local</i>) SWCAA 400-050(4) SWCAA 400-070(9) ADP 18-3302 Condition 4</p>	EU-01	M05 M06 M09																							
Req-16	<p>Metal emissions from the FBI while operating in Burn Event Mode must not exceed any of the following:</p> <table border="1" data-bbox="279 995 1040 1342" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Pollutant</th> <th colspan="2" style="text-align: center;">Emission Limits</th> </tr> <tr> <th style="text-align: center;">Long-Term</th> <th style="text-align: center;">Short-Term</th> </tr> </thead> <tbody> <tr> <td>arsenic</td> <td style="text-align: center;">1.45 lb/yr</td> <td style="text-align: center;">0.000165 lb/hr</td> </tr> <tr> <td>cadmium</td> <td style="text-align: center;">3.54 lb/yr</td> <td style="text-align: center;">0.000403 lb/hr</td> </tr> <tr> <td>chromium (II &amp; III, total)</td> <td style="text-align: center;">127 lb/yr</td> <td style="text-align: center;">0.0144 lb/hr</td> </tr> <tr> <td>lead</td> <td style="text-align: center;">450 lb/yr</td> <td style="text-align: center;">0.0514 lb/hr</td> </tr> <tr> <td>mercury</td> <td style="text-align: center;">18.9 lb/yr</td> <td style="text-align: center;">0.00215 lb/hr</td> </tr> <tr> <td>nickel</td> <td style="text-align: center;">13.3 lb/yr</td> <td style="text-align: center;">0.00151 lb/hr</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Appendix C. The short-term emission limits are determined as a 1-hr average, corrected to 7% O<sub>2</sub>.</p> <p style="text-align: center;"><u>Reference Methods</u> As: 40 CFR 60 Appendix A Method 29 or EPA SW-846 Methods 6010, 6020, 7061 or 7062; Hg: 40 CFR 61 Appendix B Method 101, 40 CFR 60 Appendix A Methods 29 or 101A, or EPA SW-846 Methods 6010 or 7471; and other metals: 40 CFR 60 Appendix A Method 29, or EPA SW-846 Methods 6010, 6020, or 7000</p> <p style="text-align: center;">40 CFR 61.52(b) 40 CFR 503.43(b) (<i>Local</i>) SWCAA 400-050(4) ADP 18-3302 Condition 5</p>	Pollutant	Emission Limits		Long-Term	Short-Term	arsenic	1.45 lb/yr	0.000165 lb/hr	cadmium	3.54 lb/yr	0.000403 lb/hr	chromium (II & III, total)	127 lb/yr	0.0144 lb/hr	lead	450 lb/yr	0.0514 lb/hr	mercury	18.9 lb/yr	0.00215 lb/hr	nickel	13.3 lb/yr	0.00151 lb/hr	EU-01	M05 M07 M08
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Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-17	<p>The average daily concentration of lead in sludge burned in the FBI must not exceed the following calculated concentration:</p> $C = \frac{0.10 \times N \times 86400}{DF \times (1 - CE) \times SF}$ <p>Where:</p> <p>C = Concentration (mg/kg)  N = 24-hr National Ambient Air Quality Standard (NAAQS) for lead (<math>\mu\text{g}/\text{m}^3</math>)  DF = Dispersion factor (<math>\mu\text{g}/\text{m}^3</math> per g/s)  SF = Sludge feed rate (Mg/day)  CE = Overall control efficiency for lead (decimal)</p> <p>40 CFR 503.43(d) (<i>Local</i>)  SWCAA 400-070(9)</p>	EU-01	M05 M07 M08
Req-18	<p>The average daily concentration of arsenic in sludge burned in the FBI must not exceed the following calculated concentration:</p> $C = \frac{RSC \times 86400}{DF \times (1 - CE) \times SF}$ <p>Where:</p> <p>C = Concentration (mg/kg)  RSC= Risk specific concentration for arsenic, <math>0.023 \mu\text{g}/\text{m}^3</math>  DF = Dispersion factor (<math>\mu\text{g}/\text{m}^3</math> per g/s)  SF = Sludge feed rate (Mg/day)  CE = Overall control efficiency for arsenic (decimal)</p> <p>40 CFR 503.43(d) (<i>Local</i>)  SWCAA 400-070(9)</p>	EU-01	M05 M07 M08

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-19	<p>The average daily concentration of cadmium in sludge burned in the FBI must not exceed the following calculated concentration:</p> $C = \frac{RSC \times 86400}{DF \times (1 - CE) \times SF}$ <p>Where:                      C = Concentration (mg/kg)                      RSC= Risk specific concentration for cadmium, 0.057 µg/m³                      DF = Dispersion factor (µg/m³ per g/s)                      SF = Sludge feed rate (Mg/day)                      CE = Overall control efficiency for cadmium (decimal)</p> <p>40 CFR 503.43(d) (<i>Local</i>)                      SWCAA 400-070(9)</p>	EU-01	M05 M07 M08
Req-20	<p>The average daily concentration of nickel in sludge burned in the FBI must not exceed the following calculated concentration:</p> $C = \frac{RSC \times 86400}{DF \times (1 - CE) \times SF}$ <p>Where:                      C = Concentration (mg/kg)                      RSC= Risk specific concentration for nickel, 2.0 µg/m³                      DF = Dispersion factor (µg/m³ per g/s)                      SF = Sludge feed rate (Mg/day)                      CE = Overall control efficiency for cadmium (decimal)</p> <p>40 CFR 503.43(d) (<i>Local</i>)                      SWCAA 400-070(9)</p>	EU-01	M05 M07 M08
Req-21	<p>The average daily concentration of chromium in sludge burned in the FBI must not exceed the following calculated concentration:</p> $C = \frac{RSC \times 86400}{DF \times (1 - CE) \times SF}$ <p>Where:                      C = Concentration (mg/kg)                      RSC= Risk specific concentration for nickel, 0.65 µg/m³                      DF = Dispersion factor (µg/m³ per g/s)                      SF = Sludge feed rate (Mg/day)                      CE = Overall control efficiency for cadmium (decimal)</p> <p>40 CFR 503.43(d) (<i>Local</i>)                      SWCAA 400-070(9)</p>	EU-01	M05 M07 M08

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-22	<p>Visible emissions from the FBI during all modes of operation must not exceed zero percent (0%) opacity for more than three (3) minutes in any one (1) hour period as determined in accordance with EPA Method 9 and SWCAA Method 9.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 9 SWCAA 400 Appendix A Method 9</p> <p style="text-align: center;">40 CFR 60.152(a)(2) SWCAA 400-040(1) ADP 18-3302 Condition 6</p>	EU-01	M01 M02
Req-23	<p>Emissions of PM<sub>10</sub> from the Sand Silo vent exhaust must not exceed: (a) 0.094 tpy, filterable PM<sub>10</sub>; and (b) 0.0050 gr/dscf, filterable PM<sub>10</sub>.</p> <p style="text-align: center;"><u>Reference Method</u> 40 CFR 60 Appendix A Method 5</p> <p style="text-align: center;">ADP 18-3302 Condition 7</p>	EU-02	M10 M11
Req-24	<p>Visible emissions from the Sand Silo must not exceed zero percent (0%) opacity for more than three (3) minutes in any one (1) hour period as determined in accordance with SWCAA Method 9.</p> <p style="text-align: center;"><u>Reference Methods</u> SWCAA 400 Appendix A Method 9</p> <p style="text-align: center;">SWCAA 400-040(1) ADP 18-3302 Condition 8</p>	EU-02	M01 M02

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring																										
Req-25	<p>Emissions from the Air Treatment System (ATS) scrubber must not exceed the following:</p> <table border="1" data-bbox="272 395 1032 815"> <thead> <tr> <th rowspan="2">Pollutant</th> <th colspan="2">Emission Limits</th> </tr> <tr> <th>Long-Term</th> <th>Short-Term</th> </tr> </thead> <tbody> <tr> <td>VOC (as propane)</td> <td>49.06 tpy</td> <td>51.0 ppmv</td> </tr> <tr> <td>acetone (<i>Local</i>)</td> <td>28.04 tpy</td> <td>22.1 ppmv</td> </tr> <tr> <td>bis(2-ethylhexyl) phthalate (<i>Local</i>)</td> <td>0.21 tpy</td> <td>0.024 ppmv</td> </tr> <tr> <td>chlorine</td> <td>0.61 tpy</td> <td>0.39 ppmv</td> </tr> <tr> <td>chloroform</td> <td>0.018 tpy</td> <td>0.0067 ppmv</td> </tr> <tr> <td>hydrogen sulfide (<i>Local</i>)</td> <td>0.086 tpy</td> <td>0.115 ppmv</td> </tr> <tr> <td>trichloroethylene</td> <td>0.049 tpy</td> <td>0.017 ppmv</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Appendix C. The short-term emission limits are determined as a 1-hr average, uncorrected for O<sub>2</sub>.</p> <p style="text-align: center;"><u>Reference Methods</u></p> <p>VOC: 40 CFR 60 Appendix A Method 25A (measured as propane); acetone, bis(2-ethylhexyl)phthalate, chloroform, and trichloroethylene: EPA Compendium Method TO-15 or Method TO-13A with EPA SW-846 Method 8270; Hydrogen sulfide: 40 CFR 60 Appendix A Method 16, 16A, or 16B or ASTM D5504-08; and Chlorine: 40 CFR 60 Appendix A Method 26</p> <p style="text-align: center;">ADP 18-3302 Condition 9</p>	Pollutant	Emission Limits		Long-Term	Short-Term	VOC (as propane)	49.06 tpy	51.0 ppmv	acetone ( <i>Local</i> )	28.04 tpy	22.1 ppmv	bis(2-ethylhexyl) phthalate ( <i>Local</i> )	0.21 tpy	0.024 ppmv	chlorine	0.61 tpy	0.39 ppmv	chloroform	0.018 tpy	0.0067 ppmv	hydrogen sulfide ( <i>Local</i> )	0.086 tpy	0.115 ppmv	trichloroethylene	0.049 tpy	0.017 ppmv	EU-03	M12 M13
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Req-26	<p>Visible emissions from the Emergency Generator Engines must not exceed the following for more than three (3) minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9:</p> <p>(a) Twenty percent (20%) during startup or shutdown; and                      (b) Fifteen percent (15%) at all other times.</p> <p>The startup period is defined as the first twenty (20) minutes of operation from a cold start and shutdown is defined as when fuel flow to the engine has stopped.</p> <p style="text-align: center;"><u>Reference Method</u></p> <p style="text-align: center;">SWCAA 400 Appendix A Method 9</p> <p style="text-align: center;">SWCAA 400-040(1) ADP 18-3302 Condition 10</p>	EU-05 EU-06 EU-07	M01 M02																										

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-27	<p>Visible emissions from the Emergency Pump Engines must not exceed the following for more than three (3) minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9:</p> <p>(a) Twenty percent (20%) during startup or shutdown; and  (b) Five percent (5%) at all other times.</p> <p>The startup period is defined as the first twenty (20) minutes of operation from a cold start and shutdown is defined as when fuel flow to the engine has stopped.</p> <p style="text-align: center;"><u>Reference Method</u>  SWCAA 400 Appendix A Method 9</p> <p style="text-align: center;">SWCAA 400-040(1)  ADP 18-3302 Condition 11</p>	EU-08 EU-09	M01 M02
Req-28	<p>Emission units and activities identified in ADP 18-3302 must be maintained and operated in total and continuous conformity with the conditions identified in ADP 18-3302. SWCAA reserves the right to take all appropriate action to maintain the conditions of ADP 18-3302, including directing the facility to cease operations until corrective action can be completed.</p> <p style="text-align: center;">ADP 18-3302 Condition 16</p>	EU-01 EU-02 EU-03 EU-04 EU-05 EU-06 EU-07 EU-08 EU-09 EU-10	M04
Req-29	<p>At all times, the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.</p> <p style="text-align: center;">40 CFR 63.6605(b)</p>	EU-05 EU-06 EU-07	M04
Req-30	<p>Each pollution control device must be operated whenever the processing equipment served by that control device is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications. Furthermore, control devices must be operated in a manner that minimizes emissions.</p> <p style="text-align: center;">ADP 18-3302 Condition 15</p>	EU-01 EU-02 EU-03 EU-05 EU-06 EU-07 EU-08 EU-09	M04
Req-31	<p>Plume suppression air must always be used when sludge or fuel oil is being fed into the FBI.</p> <p style="text-align: center;">ADP 18-3302 Condition 17</p>	EU-01	M04



Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-32	<p>The FBI must only be fired on:</p> <ul style="list-style-type: none"> <li>(a) Municipal sewage sludge;</li> <li>(b) Fuel oil with a sulfur content not to exceed 15 ppmw; or</li> <li>(c) Natural gas.</li> </ul> <p>Any other fuel must be approved by SWCAA prior to use.</p> <p style="text-align: center;">SWCAA 400-050(3)(a) ADP 18-3302 Condition 18</p>	EU-01	M04
Req-33	<p>The FBI may be operated twenty-four (24) hours per calendar day.</p> <p style="text-align: center;">SWCAA 400-050(3)(b) ADP 18-3302 Condition 19</p>	EU-01	N/A
Req-34	<p>While operating the FBI in Burn Event Mode, the sludge feed rate must be maintained below 50.4 dry ton/calendar day.</p> <p style="text-align: center;">ADP 18-3302 Condition 20</p>	EU-01	M05
Req-35	<p>While operating the FBI in Burn Event Mode, the pressure drop across the FBI Scrubber System (Venturi scrubber, tray scrubber, mist eliminator, and Mercury Control Module) must be maintained above 45 iwc as a 1-hr average.</p> <p style="text-align: center;">ADP 18-3302 Condition 23</p>	EU-01	M05
Req-36	<p>While operating the FBI in Burn Event Mode, the exhaust gas O<sub>2</sub> concentration must be maintained above 2.0% as a 1-hr average.</p> <p style="text-align: center;">ADP 18-3302 Condition 30</p>	EU-01	M05
Req-37	<p>While operating the FBI in Burn Event Mode, the combustion temperature must be maintained below 1,600°F as a 1-hr average.</p> <p style="text-align: center;">ADP 18-3302 Condition 33</p>	EU-01	M05
Req-38	<p>Inlet temperature from the FBI to the Mercury Control Module must not exceed 180 °F as a 12-hr rolling average, based upon a maximum sampling frequency of 15 min.</p> <p style="text-align: center;">ADP 18-3302 Condition 26</p>	EU-01	M05
Req-39	<p>The Permittee must install, operate, and maintain a CO monitor on the FBI. The monitor must be installed upstream of the emission test ports. The monitor must be operated continuously whenever sludge is being burned in the FBI.</p> <p style="text-align: center;">ADP 18-3302 Condition 29</p>	EU-01	M05

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-40	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) Install, operate, and maintain a thermocouple measuring the inlet temperature from the FBI to the Mercury Control Module;</li> <li>(b) The thermocouple must be installed between the outlet of the Packed Tray Scrubber and the inlet of the Mercury Control Module; and</li> <li>(c) The thermocouple must be operated continuously whenever sludge is being burned in the FBI.</li> </ul> <p style="text-align: center;">ADP 18-3302 Condition 27</p>	EU-01	M05
Req-41	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) The Mercury Control Module thermocouple must be certified by the manufacturer to have an accuracy of <math>\pm 0.75\%</math> over its operating range; and</li> <li>(b) The thermocouple must be calibrated at least once each 12-month period in accordance with the manufacturer's instructions.</li> </ul> <p style="text-align: center;">ADP 18-3302 Condition 28</p>	EU-01	M05
Req-42	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) Install, calibrate, maintain, and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the incinerator; and</li> <li>(b) The flow measuring device shall be certified by the manufacturer to have an accuracy of <math>\pm 5\%</math> over its operating range and verified at least once each 12-month period.</li> </ul> <p style="text-align: center;">40 CFR 60.153(a)(1) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 38</p>	EU-01	M05
Req-43	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) Install, operate, and maintain fuel flow measuring devices for each fuel approved for the FBI; and</li> <li>(b) The devices must be operated continuously whenever the fuel is being burned in the FBI.</li> </ul> <p style="text-align: center;">40 CFR 60.153(b)(4) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 21</p>	EU-01	M05

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-44	<p>The FBI fuel flow measuring devices must be:</p> <ul style="list-style-type: none"> <li>(a) Certified by the respective manufacturer to have an accuracy of <math>\pm 5\%</math> over the devices' respective operating range.</li> <li>(b) Calibrated as specified below in accordance with manufacturers' instructions, unless otherwise specified by SWCAA: <ul style="list-style-type: none"> <li>(1) Fuel oil, at least every 36-month period; and</li> <li>(2) Natural gas, at least every 36-month period.</li> </ul> </li> </ul> <p style="text-align: center;">40 CFR 60.153(b)(4) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 22</p>	EU-01	M05
Req-45	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) Install, operate, and maintain an FBI Scrubber System pressure drop monitor; and</li> <li>(b) The monitor must be operated continuously whenever sludge is being burned in the FBI.</li> </ul> <p style="text-align: center;">40 CFR 60.153(b)(1) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 24</p>	EU-01	M05
Req-46	<p>The FBI Scrubber System pressure drop monitor must be:</p> <ul style="list-style-type: none"> <li>(a) Certified by the manufacturer to be accurate within <math>\pm 250</math> Pa (<math>\pm 1</math> iwc); and</li> <li>(b) Calibrated at least once every 12-month period in accordance with the manufacturer's instructions.</li> </ul> <p style="text-align: center;">40 CFR 60.153(b)(1) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 25</p>	EU-01	M05
Req-47	<p>The Permittee must:</p> <ul style="list-style-type: none"> <li>(a) Install, operate, and maintain an exhaust gas O<sub>2</sub> monitor on the FBI;</li> <li>(b) The monitor must be installed upstream of the emission test ports; and</li> <li>(c) The monitor must be operated continuously whenever sludge is being burned in the FBI.</li> </ul> <p style="text-align: center;">40 CFR 60.153(b)(2) 40 CFR 503.45(b) (<i>Local</i>) SWCAA 400-070(9) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 31</p>	EU-01	M05

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-48	<p>The FBI exhaust gas O<sub>2</sub> monitor must be:</p> <p>(a) Certified by the manufacturer to have a relative accuracy of <math>\pm 5\%</math> over its operating range; and</p> <p>(b) Calibrated at least once every 24-hr operating period in accordance with the manufacturer's instructions.</p> <p style="text-align: center;">40 CFR 60.153(b)(2) 40 CFR 503.45(b) (<i>Local</i>) SWCAA 400-070(9) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 32</p>	EU-01	M05
Req-49	<p>The Permittee must install, operate, and maintain a thermocouple at the FBI stack upstream of the plume suppression air entry and operate a data acquisition system to collect information to calculate moisture content of the stack gas. The thermocouple and data acquisition system must be in operation whenever sludge is burned in the FBI.</p> <p style="text-align: center;">40 CFR 503.45(c) (<i>Local</i>) SWCAA 400-070(9) ADP 18-3302 Condition 37</p>	EU-01	M05
Req-50	<p>The Permittee must:</p> <p>(a) Install, operate, and maintain three thermocouples for monitoring the FBI bed temperature and the FBI outlet temperature; and</p> <p>(b) Operate continuously at least two thermocouples whenever sludge is being burned.</p> <p style="text-align: center;">40 CFR 60.153(b)(3) 40 CFR 503.45(d) (<i>Local</i>) SWCAA 400-070(9) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 34</p>	EU-01	M05

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-51	<p>Each of the three thermocouples for monitoring the FBI bed temperature must be:</p> <p>(a) Certified by the manufacturer to have an accuracy of <math>\pm 5\%</math> over the operating range; and</p> <p>(b) Calibrated at least once every 12-month period in accordance with the manufacturer's instructions.</p> <p style="text-align: center;">40 CFR 60.153(b)(3) 40 CFR 503.45(d) (<i>Local</i>) SWCAA 400-070(9) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 35</p>	EU-01	M05
Req-52	<p>The Permittee must:</p> <p>(a) Install, maintain, and continuously operate an exhaust temperature measuring device for the FBI;</p> <p>(b) The monitor must be operated continuously whenever sludge is being burned.</p> <p style="text-align: center;">40 CFR 60.153(b)(3) SWCAA 400-115 (<i>Local</i>) ADP 18-3302 Condition 36</p>	EU-01	M05
Req-53	<p>The Sand Silo throughput must not exceed 5,000 tpy.</p> <p style="text-align: center;">ADP 18-3302 Condition 39</p>	EU-02	M11
Req-54	<p>Operation of the Sand Silo must not exceed 1,750 hr/yr.</p> <p style="text-align: center;">ADP 18-3302 Condition 40</p>	EU-02	M11
Req-55	<p>The ATS Scrubber must always meet the following:</p> <p>(a) pH of the scrubber liquor at pH 9 or greater, as a 15-min average;</p> <p>(b) ORP of the scrubber liquor at 600 mV or greater, as a 15-min average;</p> <p>(c) Recirculation flow at 300 gpm or greater, as a 15-min average; and</p> <p>(d) Sump liquid level at 10.0 in or higher, as a 15-min average</p> <p style="text-align: center;">ADP 18-3302 Condition 41</p>	EU-03	M12

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-56	<p>The Emergency Generator Engines and Emergency Pump Engines must only be fired on fuel oil with a sulfur content not to exceed 15 ppmw. Any other fuel must be approved by SWCAA prior to use.</p> <p style="text-align: center;">40 CFR 60.4207(b) 40 CFR 63.6640(b) ADP 18-3302 Condition 44</p>	EU-05 EU-06 EU-07 EU-08 EU-09	M14
Req-57	<p>For each Emergency Generator Engine and Emergency Pump Engine, the Permittee must:</p> <p>(a) Change oil and filter every 500 hr of operation or each 12-month period, whichever comes first, unless an oil analysis is performed per 40 CFR §§63.6625(i);</p> <p>(b) Inspect air cleaner every 1,000 hr of operation or each 12-month period, whichever comes first; and</p> <p>(c) Inspect all hoses and belts every 500 hr of operation or each 12-month period, whichever comes first, and replace as necessary.</p> <p style="text-align: center;">40 CFR 63.6603(a) 40 CFR 63.6605(a) 40 CFR 63.6625(i) 40 CFR 63.6604(a)</p>	EU-05 EU-06 EU-07	M14
Req-58	<p>The Permittee shall:</p> <p>(a) Operate and maintain each Emergency Generator Engine and Emergency Pump Engine in accordance with the manufacturer's emission-related instructions; or</p> <p>(b) Develop an operation and maintenance plan which provides for operation of each Emergency Generator Engine and Emergency Pump Engine in a manner consistent with good air pollution control practices and operate and maintain the engines in accordance with the plan.</p> <p style="text-align: center;">40 CFR 63.6625(e)</p>	EU-05 EU-06 EU-07 EU-08 EU-09	M14
Req-59	<p>Each Emergency Generator Engine and each Emergency Pump Engine must be equipped with a non-resettable hour meter to record hours of operation.</p> <p style="text-align: center;">40 CFR 60.4209(a) 40 CFR 63.6655(f) ADP 18-3302 Condition 43</p>	EU-05 EU-06 EU-07 EU-08 EU-09	M04

Req. #	Requirements Applicable Facility-wide	Emission Unit	Monitoring
Req-60	<p>For each emergency generator engine:</p> <p>(a) The time spent at idle during startup must be minimized; and</p> <p>(b) The engine's startup time needed for appropriate and safe loading of the engine must be minimized, not to exceed thirty (30) minutes.</p> <p style="text-align: center;">40 CFR 63.6625(h)</p>	<p>EU-05 EU-06 EU-07</p>	<p>M14</p>
Req-61	<p>Operation of the Emergency Generator Engines and the Emergency Pump Engines for maintenance checks and readiness testing must not exceed 100 hr/yr, each.</p> <p style="text-align: center;">40 CFR 60.4211(f)(2) 40 CFR 63.6640(f)(2) 40 CFR 63.6640(f)(4) ADP 18-3302 Condition 42</p>	<p>EU-05 EU-06 EU-07 EU-08 EU-09</p>	<p>M14</p>

## VII. MONITORING TERMS AND CONDITIONS

The Permittee must conduct each of the monitoring and recordkeeping activities listed below. All monitoring information required by this permit must be recorded and readily available on-site for inspection

Unless otherwise specified in **M01–M14** below, each record required by this Permit must include, at minimum, the date, the time, and the data being recorded, and, if the record is not logged by a computerized data acquisition system, the name or other identifier of the person making the record entry [ADP 18-3302 Condition 45]. If a control device or process is not operating during a specific period, a record must be made to that effect [ADP 18-3302 Condition 45]. All records required by this Permit must be kept for a minimum period of no less than **five (5)** years and must be maintained in a form readily available for inspection by SWCAA representatives [40 CFR 63.6660, 40 CFR 503.47(a), ADP 18-3302 Condition 46].

Pursuant to WAC 173-401-530(2)(c), monitoring requirements are not applicable to IEUs unless specified below.

### **M01. Visible Emissions and Grain Loading Monitoring**

**WAC 173-401-615(1)(b)**  
**ADP 18-3302 Condition 47**  
**ADP 18-3302 Condition 49**  
**ADP 18-3302 Condition 50**

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A qualitative observation of each emission unit subject to a visible emissions or grain loading limit, including IEUs, must be performed for a minimum of six (6) minutes at least once per calendar month during daylight hours. If no visible emissions are observed, then a record of the observations must be made, and no further action is necessary.

If any visible emissions are observed during a qualitative observation of emission units, then the Permittee must:

- (a) Quantify visible emissions for a minimum of six (6) minutes;
- (b) For any observation above the visible emissions limit, the Permittee must read for another consecutive six (6) minute block, up to a total of ten (10) blocks or one (1) hour of observation;
- (c) If the observations show the unit to comply with the visible emissions limit after data reduction, then a record of the observations must be made, and no further action is necessary;
- (d) Otherwise, if the unit is exceeding the applicable visible emission limit, then the Permittee must report the excess emissions, make a record, and take corrective actions until the unit can be demonstrated to comply with the limit.

Records of inspection must contain the following, at minimum:

- (a) The date and time of the inspection;
- (b) The name and title of the person who conducted the inspection;
- (c) An identification of the unit or activity being inspected;



- (d) The operating conditions of the unit or the type of activity occurring at the time of the inspection;
- (e) Compliance status of each monitored requirement as described in Section VII of this Permit; and
- (f) A description of any corrective action taken in response to a discovered Permit deviation, excess emission, upset condition, or malfunction, as applicable.

Implementation of corrective actions does not shield the Permittee from enforcement action by SWCAA or from the obligation of reporting Permit deviations as specified in WAC 173-401-615(3).

### **M02. Fugitive Emission and Fallout General Inspection**

**WAC 173-401-615(1)(b)**

At least once per month or in response to a complaint, the Permittee shall perform inspections for identifying excess fugitive emissions or fallout from affected operations, including IEUs, during daylight hours. Whenever fugitive emissions or fallout are observed during the monthly inspection or a result of a complaint, the Permittee shall identify the source of the emissions. Within two (2) hours of discovery, the Permittee shall take corrective action to verify that reasonable precautions are being employed to minimize fugitive emissions or fallout. Reasonable precautions and good work practices include, but are not limited to, worker training programs, closed doors and windows, vertical exhaust of ventilation equipment, and proper operation of ventilation systems.

Records of inspection must contain the following, at minimum:

- (a) The date and time of the inspection;
- (b) The name and title of the person who conducted the inspection;
- (c) An identification of the unit or activity being inspected;
- (d) The operating conditions of the unit or the type of activity occurring at the time of the inspection;
- (e) Compliance status of each monitored requirement as described in Section VII of this Permit; and
- (f) A description of any corrective action taken in response to a discovered Permit deviation, excess emission, upset condition, or malfunction, as applicable.

### **M03. Complaint Log**

**WAC 173-401-615(1)(b)**  
**ADP 18-3302 Condition 65**

All air quality related complaints received by the Permittee, including those concerning IEUs, must be reported to SWCAA within three (3) calendar days of receipt. Records of complaints must contain, at minimum:

- (a) The date and time of complaint;
- (b) The name and contact information (if available) for the complainant;
- (c) The nature of the complaint and an identification of the unit or activity being complained about;
- (d) The date the inspection was conducted, if any;
- (e) The name and title of the person who conducted the inspection or certification; and
- (f) A description of any corrective action taken in response to the complaint, as applicable.

Investigations will determine the validity of each complaint, the cause of any emissions that may have prompted the complaint, and what, if any, corrective action was taken in response to the complaint. Permittee shall take appropriate corrective action for all valid complaints.

**M04. Compliance Certification****WAC 173-401-615(1)(b)**

The Permittee shall certify the following in each semiannual monitoring report:

- (a) All exhausts discharge vertically into the ambient air above the level of the building roof, except for the Emergency Generator Engines [ADP 18-3302 Condition 14].
- (b) Only approved fuels were burned in the FBI, Emergency Generator Engines and Emergency Pump Engines [SWCAA 400-040(6)];
- (c) Installed equipment did not conceal or mask any emissions that are otherwise in violation of general standards [40 CFR 60.12, 40 CFR 63.4(b), SWCAA 400-040(7)];
- (d) Approved equipment was operated in continuous conformity and operational requirements [ADP 18-3302 Condition 16];
- (e) Approved equipment, including associated air pollution controls and monitoring equipment, were operated in a manner consistent with safety and good air pollution control practices for minimizing emissions [40 CFR 63.6605(b)];
- (f) Air pollution control equipment was always operated when the controlled process equipment was in operation and were operated and maintained in accordance with manufacturer's specifications [ADP 18-3302 Condition 15];
- (g) Plume suppression air was always used when municipal sewage sludge or fuel oil was being fed into the FBI [ADP 18-3302 Condition 17];
- (h) Hour meters were installed and operated for each of the Emergency Generator Engines and Emergency Pump Engines [40 CFR 60.4214(b), 40 CFR 63.6655(f), ADP 18 3302 Condition 43]; and
- (i) The sulfur content of any fuel oil burned on-site met the requirement of 15 ppmw sulfur or less [ADP 18-3302 Condition 18, ADP 18-3302 Condition 44].

Certifications must include, at minimum:

- (a) The date of the certification;
- (b) The name and title of the person who is certifying; and
- (c) Compliance certification statement as per WAC 173-401-520, as applicable.

**M05. Fluidized Bed Incinerator Parameters**

**40 CFR 60.153(a)(1)**  
**40 CFR §§60.153(b)(1)–(b)(4)**  
**40 CFR 60.153(c)(1)**  
**40 CFR §§60.155(a)(1) and (a)(2)**  
**40 CFR 503.40(c)(1) (Local)**  
**40 CFR 503.47(c)–(i) (Local)**  
**WAC 173-401-615(2)**  
**SWCAA 400-115 (Local)**  
**ADP 18-3302 Condition 48**

The following FBI parameters must be monitored and recorded continuously while the FBI is operating in Burn Mode

- (a) The amount of dry sludge burned in the FBI [40 CFR 60.153(a)(1), SWCAA 400-115, ADP 18-3302 Condition 48(a)];
- (b) The bed temperature of the FBI [40 CFR 60.153(a)(3), 40 CFR 503.47(f), SWCAA 400-115, ADP 18-3302 Condition 48(b)];
- (c) The pressure drop across the FBI Scrubber System [40 CFR 60.153(b)(1), 40 CFR 503.47(g), SWCAA 400-115, ADP 18-3302 Condition 48(c)];
- (d) The 15-minute pressure drop for each period in which the 15-minute pressure drop is less than 30% of the average pressure drop determined in the most recent source test [40 CFR 60.155(a)(1), SWCAA 400-115];
- (e) The inlet temperature from the FBI to the Mercury Control Module [ADP 18-3302 Condition 48(d)];
- (f) The O<sub>2</sub> concentration (%v/v, dry) in the FBI exhaust [40 CFR 60.153(b)(2), 40 CFR 503.47(h), SWCAA 400-115, ADP 18-3302 Condition 48(e)];
- (g) The 1-hr average O<sub>2</sub> concentration (%v/v, dry) for each period in which the 1-hr O<sub>2</sub> concentration is more than 3% of the average O<sub>2</sub> concentration determined in the most recent source test [40 CFR 60.155(a)(2), SWCAA 400-115];
- (h) The CO concentration (ppmvd) in the FBI exhaust [40 CFR 503.40(c)(1), ADP 18-3302 Condition 48(f)]; and
- (i) The moisture content in the exit gas [40 CFR 503.47(h), ADP 18-3302 Condition 48(g)].

Data recorded by an automated system must include, at minimum:

- (a) The date and time the data was collected;
- (b) Identification of the unit or activity whose data is being recorded;
- (c) Identification of the parameter or data being recorded; and
- (d) The value of the parameter or data being recorded;
- (e) The compliance status of each monitored requirement as described in Section VII of this Permit;
- (f) Any upsets or variation to the procedures for data collection; and
- (g) Any corrective action taken in response to a deviation from Permit conditions.

For any monitoring device subject to a calibration requirement, the following information must be recorded, at minimum:

- (a) The date and time the device calibration was performed;
- (b) The name and title of the person and, if not performed by WSWTP, the entity, that performed the calibration;
- (c) Identification of the device being calibrated (e.g., location, model no., serial no., etc.);
- (d) Identification of the parameter being calibrated;
- (e) Identification of any standards or methods used to perform the calibration;
- (f) The pre-calibration value;
- (g) The target calibration value;
- (h) The post calibration value;
- (i) A description of any corrective action taken necessary to bring the device into the correct specification

**M06. Fluidized Bed Incinerator Source Testing – Specific Criteria Pollutants, VOC, Hydrogen Chloride, and Mercury**

40 CFR 61.53(d)  
40 CFR 503.43(e)(3) (*Local*)  
ADP 18-3302 Condition 57  
ADP 18-3302 Appendix A

The FBI must be emission tested for NO<sub>x</sub>, CO, PM<sub>10</sub> (total), PM<sub>10</sub> (filterable), SO<sub>2</sub>, VOC (as propane), hydrogen chloride, and mercury while burning sludge in Burn Event Mode (with no supplemental fuel), no later than the end of February 2020 in accordance with Appendix A. Subsequent emission tests must be conducted no later than February every three (3) years thereafter. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.

Sludge feed rate during testing must be at least 1.785 dry ton/hr (85% maximum permitted capacity).

Test plans and reports must be submitted as specified in Appendix A.

**M07. Fluidized Bed Incinerator Source Testing – Arsenic, Cadmium, Chromium, Lead, and Nickel**

40 CFR 503.43(e)(4) (*Local*)  
40 CFR 503.47(j) (*Local*)  
40 CFR 503.47(k) (*Local*)  
40 CFR 503.47(l) (*Local*)  
40 CFR 503.47(m) (*Local*)  
SWCAA 400-070(9)  
ADP 18-3302 Condition 58  
ADP 18-3302 Appendix A

The FBI must be tested for arsenic, cadmium, chromium, lead, and nickel, while burning sludge in Burn Event Mode (with no supplemental fuel), no later than February 2020 in accordance with Appendix A. Subsequent emission tests must be conducted no later than February every nine (9)

years thereafter. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.

Sludge feed rate during testing must be at least 1.785 dry ton/hr (85% maximum permitted capacity).

The Permittee must keep records of:

- (a) The stack height for the FBI [40 CFR 503.47(j)];
- (b) The dispersion factor FBI [40 CFR 503.47(k)]; and
- (c) The control efficiencies for lead, arsenic, cadmium, chromium, and nickel for the FBI Scrubber System [40 CFR 503.47(l)].
- (d) The risk specific concentration for chromium calculated using 40 CFR 503.43(d)(3) equation (6), if applicable.

Within **thirty (30) days** of completing a source test, the Permittee must submit a report including the items listed immediately above (items a-d) and the numerical calculations of the permit limits in Req-16 [40 CFR 503.43(e)(4)].

#### **M08. Sludge Metals Concentration Monitoring**

**40 CFR 61.54(c)**  
**40 CFR 503.46(a)(2) (Local)**  
**40 CFR 503.47(b) (Local)**  
**SWCAA 400-070(9)**  
**ADP 18-3302 Condition 52**  
**ADP 18-3302 Appendix A**

The Permittee must monitor the sludge for arsenic, cadmium, chromium, lead, mercury, and nickel in accordance with 40 CFR 503.46(a)(2) at least once every two (2) calendar months. Monitoring events must be a minimum of thirty (30) calendar days apart. Monitoring must be performed using methods specified in Appendix A, section 2(b)(2) through (4).

Records of sampling must include the following, at minimum:

- (a) Sample collection
  - The date and time that sampling was performed;
  - (1) The name and title of the person and, if not performed by WSWTP, the entity, that performed the sampling or testing;
  - (2) An identification of the type of sample being taken;
  - (3) The analytical technique or method used to obtain the sample; and
  - (4) Any chain of custody documentation;
- (b) Sample analysis:
  - (1) The date sample analysis was performed;
  - (2) The name and title of the person and, if not performed by WSWTP, the entity, that performed the sample analysis;
  - (3) An identification of the parameter being sampled;
  - (4) The analytical techniques or methods used for analysis; and
  - (5) Identification of any analytical standards used or calibrations performed;
  - (6) Any chain of custody documentation;

- (c) Sample results
- (1) The results of the analyses, including any determined or calculated errors;
  - (2) The compliance status of each monitored requirement as described in Section VII of this Permit;
  - (3) Any upset or variation to the procedures for sample collection, sample analysis, or determination of sample results; and
  - (4) Any corrective action taken in response to a deviation from Permit conditions.

**M09. Continuous Emission Monitoring Quality Assurance and Quality Control**

**40 CFR 60.13**  
**40 CFR 503.40(c)(3)(ii) (Local)**  
**SWCAA 400-105(7)**  
**SWCAA 400-070(9)**  
**ADP 18-3302 Condition 51**  
**ADP 18-3302 Condition 59**  
**ADP 18-3302 Condition 60**  
**ADP 18-3302 Condition 61**

A calibrations and maintenance log for the CO continuous emission monitoring system must be maintained [ADP 18-3302 Condition 51].

The CO and O<sub>2</sub> continuous emission monitoring systems must meet the applicable performance specification in 40 CFR 60 Appendix B and must be operated in accordance with the quality assurance procedures in 40 CFR 60 Appendix F [SWCAA 400-105(7), ADP 18-3302 Condition 59].

The CO and O<sub>2</sub> continuous emission monitoring systems must be audited at least once each calendar quarter with successive audits performed no closer than two (2) months. A Relative Accuracy Test Audit (RATA) must be performed at least once every four (4) calendar quarters and a Cylinder Gas Audit (CGA) must be conducted three of four calendar quarters, but in no more than three (3) quarters in succession. Audits must be performed in accordance with 40 CFR 60 Appendix F [ADP 18-3302 Condition 60].

The CO and O<sub>2</sub> continuous emission monitoring system must recover valid hourly monitoring data for at least 95% of the hours that the FBI was in operation in Burn Mode during each calendar month, except for periods of monitoring system downtime, provided that the Permittee demonstrates that the downtime was not a result of inadequate design, operation, or maintenance, or any other reasonable preventable condition, and any necessary repairs to the monitoring system are conducted in a timely manner [ADP 18-3302 Condition 61].

Reporting and recordkeeping must be consistent with 40 CFR 60 Appendix B and Appendix F, as appropriate.

**M10. Sand Silo Observation**

**ADP 18-3302 Condition 55**

When the Sand Silo is being loaded during daylight hours, a brief qualitative observation to identify the presence of visible emissions must be performed during daylight hours for a minimum of five (5) minutes of observations.

- (a) If no visible emissions are observed, a record must be made, and no further action is necessary; or
- (b) If visible emissions are observed and are above 0% opacity as measured according to SWCAA Method 9, then the Permittee must report the excess emissions, make a record, and take corrective actions until compliance with the emission limit can be demonstrated in accordance with SWCAA Method 9.

Records of the sand silo observation must contain the following, at minimum:

- (a) The date and time of the observation;
- (b) The name and title of the person who conducted the observation;
- (c) An identification of the unit and activity being inspected;
- (d) The operating conditions of the unit occurring at the time of the observation;
- (e) The results of the observation, and if a compliance determination is being made by using SWCAA Method 9, any documentation as required by the Method
- (f) Compliance status of each applicable requirement as described in Section VII of this Permit; and
- (g) A description of any corrective action taken in response to a discovered Permit deviation, excess emission, upset condition, or malfunction, as applicable.

#### **M11. Sand Silo Operation**

**ADP 18-3302 Condition 56**

For each sand silo loading event, the amount of sand loaded and hours of loading must be logged.

Records of each sand loading event must include the following, at minimum:

- (a) The date and time of the start and end of the event;
- (b) The name and title of the person collecting the data;
- (c) Identification of the unit and activity whose data is being recorded;
- (d) Identification of the parameter being recorded;
- (e) The value of the parameter or data being recorded;
- (f) The compliance status of each monitored requirement as described in Section VII of this Permit;
- (g) Any upsets or variation to the procedures for data collection; and
- (h) Any corrective action taken in response to a deviation from Permit conditions.

#### **M12. ATS Scrubber Parameters**

**WAC 173-401-615(1)(b)  
ADP 18-3302 Condition 53**

The following ATS Scrubber operating parameters must be monitored and recorded continuously, unless otherwise specified:

- (a) The pressure drop across the scrubber;
- (b) The pH of the scrubber water;
- (c) The ORP reading;
- (d) The recirculation flow rate;
- (e) The sump level for the scrubber liquor;
- (f) The sodium hydroxide tank level must be recorded, at minimum, once each 24-hr period; and
- (g) Operating hours when the scrubber was being used as a control device.

Records of the ATS Scrubbers Parameters must include the following, at minimum:

- (a) If data is recorded by an automated system:
  - (1) The date and time the data was collected;
  - (2) Identification of the unit whose data is being recorded;
  - (3) Identification of the parameter or data being recorded; and
  - (4) The value of the parameter or data being recorded;
- (b) If data is being manually collected:
  - (1) The date and time the data was collected;
  - (2) The name and title of the person who is collecting the data;
  - (3) Identification of the unit whose data is being recorded;
  - (4) Identification of the parameter or data being recorded; and
  - (5) The value of the parameter or data being recorded;
- (c) The compliance status of each monitored requirement as described in Section VII of this Permit;
- (d) Any upsets or variation to the procedures for data collection; and
- (e) Any corrective action taken in response to a deviation from Permit conditions.

**M13. ATS Scrubber Source Testing**

**ADP 18-3302 Condition 62  
ADP 18-3302 Appendix B**

The ATS scrubber must be emission tested no later than the end of February 2020 in accordance with Appendix C. Subsequent emission tests must be conducted no later than February 2020 every five (5) years thereafter. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.

Test plans and reports must be submitted as specified in Appendix B.

**M14. Emergency Generator Engines and Emergency Pump Engines Operating Parameters**

**40 CFR 60.4207(b)  
40 CFR 60.4211(a)(1)  
40 CFR 63.6604(b)  
40 CFR 63.6625(e)(3)  
40 CFR 63.6640(a)  
40 CFR 63.6640(b)  
40 CFR 63.6650(b)(4)  
40 CFR 63.6655(a)(2)  
40 CFR 63.6655(a)(5)  
40 CFR 63.6655(f)  
WAC 173-401-615(1)(b)  
ADP 18-3302 Condition 54**

The Permittee must record the following:

- (a) For each Emergency Generator Engine and Emergency Pump Engine:
  - (1) Hours or fuel consumption during non-emergency operation [ADP 18-3302 Condition 54];
  - (2) Hours or fuel consumption during maintenance and testing operation [ADP 18-3302 Condition 54].



- (3) Purchase receipts or other documentation that demonstrates that only 15 ppmw sulfur fuel oil or ultralow sulfur fuel oil was purchased by the facility [40 CFR 60.4207(b), 40 CFR 63.6604(b), WAC 173-401-615(1)(b)].
  - (4) The date of any required maintenance or repair performed on the engine and any record demonstrating that the manufacturer's, site-specific, or engine-specific maintenance procedures were followed [40 CFR 60.4211(a)(1), 40 CFR 63.6655(e)(3)];
- (b) For each Emergency Generator Engine:
- (1) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.6650(c)(4)]; and
  - (2) Any upset condition, maintenance, tune-up, or repair activity that may cause excess emissions must be recorded for each occurrence [40 CFR 63.6650(b)(4)].
  - (3) The date and hour meter reading of each engine oil and filter change [40 CFR 63.6655(e)(3)];
  - (4) The date and hour meter reading of each air cleaner change [40 CFR 63.6655(e)(3)];
  - (5) The date and hour meter reading of each hose and belt inspection [40 CFR 63.6655(e)(3)];
  - (6) The date of any required maintenance performed on the air pollution control and monitoring equipment [40 CFR 63.6655(a)(3)]; and
  - (7) Each occurrence and duration of each malfunction of the engines' operation, air pollution control equipment, or monitoring equipment [40 CFR 63.6640(b), 40 CFR 63.6655(a)(2)];

The Emergency Generator Engines must be operated and maintained, including associated air pollution control equipment and monitoring equipment, according to:

- (a) The manufacturer's emission-related written instructions [40 CFR 60.4211(a)(1), 40 CFR 63.6640(a) Table 6, 9.a.i]; or
- (b) A site-specific or engine-specific maintenance plan developed by the Permittee that provides, 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 [40 CFR 63.6640(a) Table 6, 9.a.ii].

Records of engine operation and maintenance must contain the following, at minimum:

- (a) The date and time the data was collected;
- (b) The name and title of the person who is collecting the data;
- (c) Identification of the unit whose data is being recorded;
- (d) Identification of the parameter or data being recorded; and
- (e) The value of the parameter or data being recorded;
- (f) The compliance status of each monitored requirement as described in Section VII of this Permit;
- (g) Any upsets or variation to the procedures for data collection; and
- (h) Any corrective action taken in response to a deviation from Permit conditions.

## VIII. REPORTING TERMS AND CONDITIONS

All required reports must be certified by a responsible official consistent with WAC 173-401-520. Where an applicable requirement requires reporting more frequently than once every six (6) months, the responsible official's certification need only be submitted once every six (6) months, covering all required reporting since the date of the last certification. In the case where there are two reporting frequencies for the same record, submittal of the record according to the most frequent schedule is deemed to have met the requirement for the less frequent reporting schedule. Pursuant to WAC 173-401-530(2)(c), reporting requirements are not applicable to IEUs unless specified below.

Addresses of regulatory agencies are the following, unless otherwise instructed:

Southwest Clean Air Agency  
11815 NE 99th Street, Suite 1294  
Vancouver, WA 98682-2322

Part 70 Operating Permit Program  
US EPA Region 10, Mail Stop OAW-150  
1200 Sixth Avenue, Suite 155  
Seattle, WA 98101

### R01. Deviations from Permit Conditions

**40 CFR 63.10(c)**  
**40 CFR 63.152(c)(2)(ii)(A)**  
**40 CFR 63.2386(e)**  
**40 CFR 63.6640(b)**  
**40 CFR 63.6650(f)**  
**WAC 173-401-615(3)(b)**  
**ADP 18-3302 Condition 47**

Deviations from Permit conditions means any situation when a rule, regulation, or approval condition is not met, including, but not limited to, conditions that establish emission limitations, emission standards, control equipment requirements, work practices, parameter ranges, and those designed to assure compliance with such requirements, such as monitoring, recordkeeping, and reporting. This requirement applies to EUs and IEUs. A deviation does not necessarily constitute a violation and may or may not result in excess emissions.

Excess emissions and upset conditions must be recorded for each occurrence [ADP 18-3302 Condition 47]. Deviations from Permit conditions shall be reported to SWCAA as follows:

- (a) As soon as possible, but no later than twelve (12) hours after discovery for deviations that represent a potential threat to human health or safety; or
- (b) No later than thirty (30) calendar days after the end of the month of discovery for all other deviations.

Reports of deviations shall include, at minimum:

- (a) Identification of the emission unit(s) involved;
- (b) The duration of the event including the beginning and end times; and

- (c) A brief description of the event, including:
- (1) Whether or not the deviation or excursion was due to an upset condition;
  - (2) The probable cause of the deviation or excursion; and
  - (3) The corrective action taken and when the corrective action was initiated.

**R02. Deviations from CEMS Data Reporting****SWCAA 400-105(7)(f)**

The owner or operator must submit a report to SWCAA within thirty (30) days after the end of each month in which data were recorded or as otherwise directed by the terms of the applicable ADP, PSD permit, or regulation. The report required by this section may be combined with an excess emission report required by SWCAA 400-107(1). The report must include the following information:

- (a) The number of hours that the monitored emission unit operated during the month and the number of valid hours of monitoring data that the monitoring system recovered during the month;
- (b) The date, period, and cause of each failure to meet the data recovery requirements above and any actions taken to ensure adequate collection of such data;
- (c) The date, period, and cause of each failure to recover valid hourly monitoring data for at least 90% of the hours that the associated generating equipment was operated each day;
- (d) The results of all cylinder gas audits conducted during the month; and
- (e) A certification of truth, accuracy, and completeness signed by an authorized representative of the owner or operator

**R03. Excess Emission and Upset Recordkeeping and Reporting****WAC 173-401-615(3)(b)****SWCAA 400-107(1)****ADP 18-3302 Condition 47****ADP 18-3302 Condition 63****ADP 18-3302 Condition 64**

Excess emissions and upset conditions must be recorded for each occurrence [ADP 18-3302 Condition 47]. Upset conditions of EUs or IEUs must be reported to SWCAA as soon as possible after discovery. The Permittee may provide notification to SWCAA via telephone. A message may be left on the answering machine for upset conditions that occur outside of normal business hours [ADP 18-3302 Condition 63].

Excess emissions shall be reported to SWCAA as follows:

- (a) Excess emissions that represent a potential threat to human health or safety shall be reported as soon as possible, but no later than twelve (12) hours after discovery [ADP 18-3302 Condition 64].
- (b) Excess emissions which the owner or operator wishes to be considered as unavoidable, shall be reported to the Agency as soon as possible, but no later than 48 hours after discovery [ADP 18-3302 Condition 64].
- (c) All other excess emissions shall be reported within thirty (30) calendar days after the end of the month during which the event is discovered, or for Air Operating Permit sources, as provided in WAC 173-401-615(3)(b) [WAC 173-401-615(3)(b), ADP 18-3302 Condition 64].

- (d) Excess emission reports shall contain the following information [WAC 173-401-615(3)(b)]:
- (1) Identification of the emission unit(s) involved;
  - (2) A brief description of the event including identification of known causes;
  - (3) Date, time, and duration of the event;
  - (4) For exceedances of non-opacity emission limitations, an estimate of the quantity of excess emissions;
  - (5) Corrective action taken in response to the event; and
  - (6) Preventive measures taken or planned to minimize future recurrence.
- (e) For any excess emissions that the owner or operator wishes to be considered as unavoidable, the excess emission report must include the following information in addition to that listed in subsection d above [WAC 173-401-615(3)(b)]:
- (1) Properly signed, contemporaneous records documenting the owner or operator's actions in response to the excess emissions event;
  - (2) Information on whether installed emissions monitoring and pollution control systems were operating at the time of the exceedance. If either or both systems were not operating, information on the cause and duration of the outage; and
  - (3) All additional information required by SWCAA 400-107(2) supporting the claim that the excess emissions were unavoidable.

In accordance with SWCAA 400-107(1), excess emissions that the Permittee wishes to be considered unavoidable must be reported as soon as possible, but no later than forty-eight (48) hours after discovery. The Permittee must report the upset condition by telephone, e-mail, or facsimile as initial notification to SWCAA; a message may be left on the answering machine for conditions outside of normal business hours [SWCAA 400-107(1), ADP 18-3302 Condition 63].

#### **R04. Quarterly Reports**

#### **ADP 18-3302 Condition 67**

Quarterly reports must be submitted to SWCAA for each calendar quarter. Each report must contain, at a minimum, the following information:

- (a) Number of hours that the FBI operated each month [ADP 18-3302 Condition 69(a)];
- (b) Number of valid hours of monitoring data that the CEMS recovered each month; [ADP 18-3302 Condition 69(b)];
- (c) For each calendar day in which 90% or less of the monitoring data collected by the CEMS was valid, record the date, start, and end times of each period of invalid data, and cause of the invalid data [ADP 18-3302 Condition 69(c)];
- (d) The date, start and end times, and cause of each failure to recover valid hourly monitoring data for at least 90% of the data generated each day of operation [ADP 18-3302 Condition 69(d)];
- (e) The results of all cylinder gas audits conducted during the month [ADP 18-3302 Condition 69(e)]; and

The quarterly report is due by the end of the following month after the end of the quarter (e.g., the first quarter report is due by April 30).

**R05. Semiannual Monitoring Reports**

**40 CFR 60.7(c)**  
**WAC 173-400-105(7)**  
**WAC 173-401-615(1)**  
**WAC 173-401-615(3)**  
**SWCAA 400-075 (Local)**  
**SWCAA 400-115 (Local)**

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The Permittee must submit semiannual reports to SWCAA for the period from January 1 through June 30, due **October 15** of the reporting year, and for the period from July 1 through December 31, due **April 15** following the reporting year. The report must contain the following:

- (a) Reports of any required monitoring, not otherwise submitted; and
- (b) All instances of deviations from Permit requirements.

**R06. Semiannual Report**

**40 CFR 60.155(a)(1)**  
**40 CFR 60.155(a)(2)**  
**WAC 173-401-615(1)(b)**  
**ADP 18-3302 Condition 68**

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Semiannual reports must be submitted to SWCAA for the periods defined from January 1 to June 30 and from July 1 to December 31. Each report must contain, at a minimum, the following information:

- (a) For each calendar day of operation in Burn Event Mode:
  - (1) Quantity of dry sludge combusted [40 CFR 60.153(a)(1), ADP 18-3302 Condition 68(a)(1)];
  - (2) Maximum hourly average combustion temperature [ADP 18-3302 Condition 68(a)(2)];
  - (3) Minimum pressure drop across the scrubbing system as a 15-min and 1-hr average [40 CFR 60.155(a)(1), ADP 18-3302 Condition 68(a)(3)]; and
  - (4) Minimum and maximum hourly average oxygen level [ADP 18-3302 Condition 68(a)(4)];
- (b) For each calendar hour of operation in Burn Event Mode, Start Up Mode, and Shut Down Mode:
  - (1) Maximum carbon monoxide concentration for each clock hour of operation [ADP 18-3302 Condition 68(b)(1)];
  - (2) Average O<sub>2</sub> concentration in the FBI exhaust for each period of 1-hr or longer during which the O<sub>2</sub> concentration in the FBI exhaust exceeded by more than 3% the average FBI exhaust O<sub>2</sub> concentration measured during the most recent source test [40 CFR 60.155(a)(2), ADP 18-3302 Condition 68(b)(2)]; and
  - (3) Average scrubber system pressure drop measurements for each period of 15 min or longer during which the pressure drop across the scrubber was less than 30% of the average pressure drop measured during the most recent source test [40 CFR 60.155(a)(1), ADP 18-3302 Condition 68(b)(3)];
- (c) The sludge metals sampling test results and 12-month rolling average concentration [ADP 18-3302 Condition 68(c)]; and
- (d) The calculated arsenic, cadmium, chromium, lead, mercury, and nickel concentrations for each calendar day the FBI is operated in Burn Event Mode [WAC 173-401-615(1)(b)].

The semiannual report for January 1 to June 30 is due by October 15 of the reporting year and the semiannual report for July 1 through December 31 is due by April 15 of the year following the reporting year.

**R07. Annual Compliance Certification**

**40 CFR 60.7**  
**40 CFR 61.357**  
**WAC 173-401-615(1)(b)**  
**WAC 173-401-630(5)(c)**  
**WAC 173-401-630(5)(d)**  
**SWCAA 400-075 (Local)**

The Permittee shall submit an annual compliance certification report to SWCAA and the EPA [WAC 173-401-615(5)(d)] for the period from January 1 to December 31, due no later than **April 15** following the reporting year. The report must contain the following:

- (a) Identification of each term or condition of the Permit that is the basis of the certification [WAC 173-401-615(5)(c)(i)];
- (b) Statement of compliance status [WAC 173-401-615(5)(c)(ii)];
- (c) Whether compliance was continuous or intermittent [WAC 173-401-615(5)(c)(iii)];
- (d) Method(s) used for determining the compliance status of the source, currently and over the semiannual monitoring report periods [WAC 173-401-615(5)(c)(iv)];
- (e) Such other facts as SWCAA may require to determine the compliance status of the source [WAC 173-401-615(5)(c)(v)];
- (f) Such additional requirements as may be specified pursuant to FCAA Sections 114(a)(3) and 504(b) [WAC 173-401-615(5)(e)]; and

**R08. Emission Inventory Report**

**WAC 173-401-615(1)(b)**  
**SWCAA 400-105(1)(b)(i)**  
**ADP 18-3302 Condition 66**

An annual emissions inventory report must be submitted to SWCAA for the previous 12-month calendar year in accordance with SWCAA 400-105(1). Each report must contain, at a minimum, the following information:

- (a) Sum of emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, SO<sub>2</sub>, TAPs (*Local*), and HAPs;
- (b) Quantities of natural gas, fuel oil, and sludge burned in the FBI;
- (c) Number of hours that the FBI operated;
- (d) Number of hours that the Sand Silo was loaded;
- (e) Number of hours that the ATS scrubber operated;
- (f) Quantity of fuel oil burned in the Emergency Generator Engines;
- (g) Fuel sulfur certification for fuel oil; and
- (h) Number of hours that each of the Emergency Generator Engines operated:
  - (1) For maintenance and readiness testing;
  - (2) In non-emergency operation; and
  - (3) In emergency operation.

The emissions inventory report is due no later than **March 15** of the calendar year following the reporting year.

**R09. Emission Test Reports**

**40 CFR 63.152(b)(1)(ii)**  
**SWCAA 400-106(1)(g)**  
**ADP 18-3302 Condition 69**

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The results of all emission testing required by this Permit must be reported to SWCAA in writing within forty-five (45) calendar days of test completion.

**IX. NON-APPLICABLE REQUIREMENTS**

This section lists all federal, state, and/or local requirements which might apply to the Permittee but are deemed non-applicable after review by SWCAA per WAC 173-401-640(2). In accordance with WAC 173-401-640, the Permittee is provided a Permit shield for not complying with the requirements described below where they have been identified to be non-applicable to specific emission units.

**1. Notification and Recordkeeping (General Provisions) 40 CFR 60.7**

This regulation requires that notification must be submitted to SWCAA, the delegated authority, for date construction commenced and anticipated initial and actual initial start-up dates of emission units subject to a New Source Performance Standard (NSPS), which in this case is the FBI. The initial notification requirement under 40 CFR 60 Subpart O has been satisfied; therefore, §60.7 no longer applies to the FBI.

**2. Performance Tests (General Provisions) 40 CFR 60.8**

This regulation requires that emission tests be conducted according to test methods approved in advance by SWCAA and a copy of the results be submitted to SWCAA. The FBI is subject to 40 CFR 60 Subpart O and an initial source test has been performed under that Subpart; therefore §60.8 no longer applies to the FBI.

However, on-going periodic source testing requirements are established as part of ADP 18-3302.

**3. Monitoring requirements (General Provisions) 40 CFR 60.13**

This regulation applies to continuous monitoring systems (examples: temperature and emission monitoring systems) used to comply with NSPS requirements. The requirement to operate a CEMS is under 40 CFR 503, which is adopted by reference under SWCAA 400-070(9). Operation of a CEMS is not required under an applicable NSPS; therefore, §60.13 is not applicable to the FBI CEMS.

**4. Standards of Performance for Incinerators 40 CFR 60 Subpart E (§60.50 et seq.)**

This standard was promulgated to regulate the incineration of solid waste at greater than 50 ton/day. Solid waste is defined as refuse, more than 50% of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock. The FBI does not meet the definition of "incinerator" under §60.51(a) because sewage sludge does not meet the definition of "solid waste" under §60.51(b); therefore, this regulation does not apply to the facility.

**5. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60 Subpart IIII (§60.4200 et seq.)**

This regulation applies to each compression ignition reciprocating internal combustion engine (CI RICE) that commences construction after July 11, 2005 and is manufactured after April 1, 2006,



or that is modified or reconstructed after July 11, 2005. Although the Emergency Generator Engines are CI RICES, they were manufactured prior to April 1, 2006; therefore, this regulation does not apply to the Emergency Generator Engines.

**6. Standards of Performance for New Sewage Sludge Incineration Units**  
**40 CFR 60 Subpart LLLL (§60.4760 *et seq.*)**

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This regulation establishes new source performance standards for sewage sludge incineration (SSI) units. The FBI was constructed prior to October 14, 2010; therefore, this regulation does not apply.

**7. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units**  
**40 CFR 60 Subpart MMMM (§60.5000 *et seq.*)**

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This regulation requires that a State with one or more SSI units that commenced construction on or before October 14, 2010 establish a State Plan that implements the emission guidelines contained in the subpart, submit a negative declaration letter in place of the state plan, or submit an acceptable written request for delegation of the Federal Plan. Under §60.5055(a), the regulation does not directly affect SSI unit owners or operators. At present, WA state has not established a state plan and has not submitted a negative declaration (there are multiple SSI units in the state); therefore, this regulation does not apply to the facility.

**8. National Emission Standards for Beryllium**      **40 CFR 61 Subpart C (§61.30 *et seq.*)**

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This regulation applies to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste and machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5% beryllium by weight. In a letter dated May 10, 1996, SWCAA made a determination using EPA Applicability Determination Index control number ZC012 that the Subpart only applied to "beryllium containing wastes" generated at a foundry, extraction plant, ceramic plant, or propellant plant and that the control techniques included in the Subpart could not reasonably be expected to apply to a sewage sludge incinerator; therefore, this regulation does not apply to the facility.

**9. Federal Plan Requirements for Commercial and Industrial Solid Waste Incineration Units That Commenced Construction On or Before November 30, 1999**  
**40 CFR 62 Subpart III (§62.14500 *et seq.*)**

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This regulation establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration units. The FBI is a sewage sludge incinerator, which is exempted per 40 CFR 62.14531(m); therefore, this regulation does not apply to the FBI.

**10. Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or Before October 14, 2010**  
**40 CFR 62 Subpart LLL [§ 62.15855 *et seq.*]**

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The facility operates an SSI and is subject to requirements under a Federal Plan 40 CFR 62 Subpart LLL. Although the Permittee included information in the Title V application regarding these future

requirements, SWCAA has not yet received delegation, nor entered into a Memorandum of Agreement (§60.5045) with EPA to be able to implement and enforce these requirements under the Title V permit. Until such time as SWCAA does receive the authority to enforce and implement these regulations, they are not "applicable requirements", as defined in WAC 173-401-030, for purposes of Title V. The facility is still required to comply with these requirements; however, EPA is the only agency able to implement and enforce these regulations at this time.

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**11. Performance Testing Requirements (General Provisions) 40 CFR 63.7**

This regulation requires that notification must be submitted to SWCAA, the delegated authority, for date construction commenced, and anticipated and actual initial start-up dates. The existing stationary emergency engines are subject to 40 CFR 63 Subpart ZZZZ but are not subject to 40 CFR §§63.7(b) and (c) per §63.6645(a)(5); therefore, §63.7 does not apply to the engines.

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**12. Monitoring Requirements (General Provisions) 40 CFR 63.8**

This regulation requires monitoring for those units subject to a requirement under 40 CFR 63. The existing Emergency Generator Engines are subject to 40 CFR 63 Subpart ZZZZ but are not subject to 40 CFR §§63.8(e), (f)(4) and (f)(6) per §63.6645(a)(5); therefore, §63.8 does not apply to the Emergency Generator Engines.

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**13. Notification Requirements (General Provisions) 40 CFR 63.9**

This regulation requires that notification must be submitted to the EPA for the date of initial start-up. The existing stationary emergency engines are subject to 40 CFR 63 Subpart ZZZZ but are not subject to 40 CFR §§63.9(b)–(e), (g) and (h) per §63.6645(a)(5); therefore, §63.9 does not apply to the engines.

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**14. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works 40 CFR 63 Subpart VVV (§63.1580 *et seq.*)**

This regulation applies to a Publicly Owned Treatment Work (POTW) that is, by itself, a major source of HAPs, or a POTW that accepts a waste stream from an industrial source regulated by an industrial National Emission Standard for Hazardous Air Pollutants (NESHAP). WSWTP is not a major source of HAP and does not accept waste from an industrial source subject to an applicable NESHAP; therefore, this regulation does not apply to the facility.

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**15. Compliance Assurance Monitoring 40 CFR 64**

The Title V Permit is a requirement under section 129(e) of the FCAA, however facility-wide potential emissions are below 100 tpy for all criteria pollutants, under 10 tpy for any HAP, and under 25 tpy for any combination of HAP. The facility is not a major source and no individual emission unit is a major source, so the general applicability requirements under § 64.2(a) cannot be met; therefore, CAM is not applicable.

**16. Acid Rain Regulation****WAC 173-406**

This regulation applies to utility units that burn fossil fuels. The FBI is not used to generate power, does not meet the definition of "utility unit", and while is a "solid waste incinerator," burns less than 80% fossil fuels on a Btu-basis; therefore, this regulation does not apply to the FBI.

**17. Solid Fuel Burning Devices****WAC 173-433**

This regulation establishes emission standards, certification standards and procedures, and fuel restrictions for solid fuel burning devices. In addition, the regulation provides operation restrictions during impaired air quality burn bans and criteria for prohibiting the use of solid fuel burning devices that are not certified. The FBI does not meet the definition of "solid fuel burning device" under WAC 173-433-030(13) because the it has a heat input greater than 1.0 MMBtu/hr; therefore, this regulation does not apply to the FBI.

**18. Solid Waste Incinerator Facilities****WAC 173-434**

This standard applies to solid waste or solid waste derived fuel incinerator facilities that were constructed after January 1, 1985 and burn more than 12 ton/day of solid waste or facilities constructed prior to January 1, 1985 that begin to burn more than 12 ton/day of solid waste. The FBI burns sewage sludge, which is exempted under WAC 173-434-030(3)(d); therefore, this regulation does not apply to the FBI.

**19. Radiation Protection (WA Department of Health)****WAC 246-220**

The Permittee operates level measuring devices that are subject to the requirements for radioactive sources contained in WAC 246-220 through 246-256. These requirements are not part of the air program; therefore, these regulations are not applicable regulations under Title V.

**20. Registration program****SWCAA 400-100(2) (Local)**

The Permittee is an AOP source and is subject to the Title V permit program. Pursuant to SWCAA 400-100(3)(a)(iv), facilities subject to the Title V permit program are exempt from the registration requirements of SWCAA 400-100(2); therefore, this regulation does not apply to the facility.

**21. Requirements for New Sources in Nonattainment Areas****SWCAA 400-112**

The Permittee is not located in a nonattainment area for any criteria pollutant; therefore, this regulation does not apply to the facility.

**22. Bubble Rules****SWCAA 400-120 (Local)**

The Permittee has not requested an emission bubble for any regulated pollutant; therefore, this regulation does not apply to the facility.

**23. Emission Standards and Controls for Sources Emitting Volatile Organic Compounds****SWCAA 490**

This regulation applies to specified emission sources of VOCs located in or operating within designated ozone nonattainment areas and areas covered by a maintenance plan within the

SWCAA's jurisdiction. WSWTP is located within the ozone maintenance area but is not a specified emission source listed in the regulation; therefore, this regulation does not apply to the facility.

**APPENDIX A**  
**Fluidized Bed Source Test Requirements**

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**Appendix A**  
**Emission Testing Requirements**  
**Fluidized Bed Incinerator**

**1. Background:**

The purpose of this testing is to quantify the emissions from the Fluidized Bed Incinerator (FBI) and to provide an adequate assurance of compliance with the terms and conditions of ADP 18-3302.

**2. Test Constituents and Test Methods**

(a) FBI Exhaust.

- (1) Sample ports, traverse points, volumetric flow rate, gas velocity, and temperature using 40 CFR 60 Appendix A Methods 1 and 2;
- (2) O<sub>2</sub> and CO<sub>2</sub> using 40 CFR 60 Appendix A Methods 3 or 3A;
- (3) Moisture content of stack gas using 40 CFR 60 Appendix A Method 4;
- (4) Particulate matter (PM) using 40 CFR 60 Appendix A Method 5 and Method 202;
- (5) Nitrogen oxides (NO<sub>x</sub>) using 40 CFR 60 Appendix A Method 7E;
- (6) Carbon monoxide (CO) using 40 CFR 60 Appendix A Method 10;
- (7) Sulfur dioxide (SO<sub>2</sub>) using 40 CFR 60 Appendix A Method 6 or 6C;
- (8) Total Gaseous Organic Concentration (TGO)/Volatile organic compounds (VOC) using 40 CFR 60 Appendix A Method 25A (reported as propane). Method 18 or a nonmethane cutter may be used to adjust Method 25A results to subtract non-VOC species. If a nonmethane cutter is used, it should be noted in the test plan. Additional documentation as to the accuracy and effectiveness of the cutter may be requested by SWCAA;
- (9) 1,4-Dichlorobenzene [106-46-7] using EPA Compendium Method TO-15;
- (10) Hydrogen chloride [7647-01-0] using Method 26A;
- (11) Visible emissions (opacity) using 40 CFR 60 Appendix A Method 9 and SWCAA Method 9;
- (12) Arsenic [7440-38-2], Cadmium [7440-43-9], Chromium [7440-47-3], Lead [7439-92-1], and Nickel [7440-02-0] using 40 CFR 60 Appendix A Method 29; and
- (13) Mercury [7439-97-6] using 40 CFR 60 Appendix A Methods 29 or 30B or ASTM D6784-02.

(b) Sludge Feed.

- (1) Total solids using "2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater", with the following exceptions [40 CFR 60.154(b)(5) and 40 CFR 60.17]:
  - (A) Sludge samples charged to the incinerator must be collected in nonporous containers at the beginning of each run, for a minimum of three (3) samples for the test. The samples must be taken at approximately the same time during each run. For example, if the first sample was taken 10 min into the run, then the second and third samples must be taken at approximately 10 min into the runs, respectively. If more than three samples are taken, the samples should be taken at approximately the same time during each run [§60.154(b)(5)];
  - (B) Evaporating dishes must be heated to a minimum of 266 °F (103 °C) [§60.154(b)(5)(i)];
  - (C) Determination of volatile residue, step 3(b), may be omitted [§60.154(b)(5)(ii)];

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- (D) The quantity of dry sludge per unit sludge charged may be determined in terms of kg/m<sup>3</sup> (lb/gal) or kg/kg (ton/ton) [§60.154(b)(5)(iii)]; and
- (E) Total solids for the test is determined by either analyzing a composite sample of the three sludge samples obtained during the run or analyzing each sample individually and averaging the results [§60.154(b)(5)(iv)].
- (2) Arsenic using EPA SW-846 Methods 6010, 6020, 7061, or 7062 (any version of these methods that is more recent than the issuance date of the ADP is acceptable);
- (3) Cadmium, Chromium, Lead, and Nickel using EPA SW-846 Methods 6010, 6020, or 7000 (any version of these methods that is more recent than the issuance date of the ADP is acceptable); and
- (4) Mercury using EPA SW-846 Methods 6010 or 7471 (any version of these methods that is more recent than the issuance date of the ADP is acceptable).

**3. Test Plan and Notification**

A comprehensive test plan must be submitted to SWCAA for review and approval a minimum of ten (10) business days prior to the proposed test date. SWCAA must be notified a minimum of three (3) calendar days prior to the proposed test date so that a SWCAA representative may be present during testing.

**4. Test Requirements**

- (a) Test Dates.
  - (1) The emission test for NO<sub>x</sub>, CO, PM<sub>10</sub> (total), SO<sub>2</sub>, VOC (as propane), hydrogen chloride, and mercury must be performed no later than February 2023. Subsequent emission tests must be conducted no later than February every three (3) years thereafter. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.
  - (2) The emission test for arsenic, cadmium, chromium, lead, and nickel must be performed no later than February 2029. Subsequent emission tests must be conducted no later than February every nine (9) years thereafter. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.
- (b) Test Duration. Tests must include a minimum of three (3) test runs, each at least one (1) hour in duration.
- (c) Test Location.
  - (1) The Permittee must provide the necessary platform and sampling ports for testing personnel to perform a test of the systems. Testing must be performed on the FBI exhaust at a point after the addition of plume suppression air and that meets the requirements of EPA Methods 1 and 2.
  - (2) When testing for metals (2.b. above), sludge samples must be collected from the sludge feed in non-porous containers at a point before the sludge is fed into the FBI.
- (d) Source Operations. The FBI must be operated in Burn Event Mode while being fired on sludge with no supplemental fuel. Sludge feed rate during testing must be at least 1.785 dry ton/hr (85% maximum permitted capacity).

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- (e) Test Records. A complete record of operation related parameters, including process startups and shutdowns, control equipment startups and shutdowns, and any adjustments made during testing must be kept during emissions testing to correlate operations with emissions and must be recorded in the test results final report. Include a summary of production related parameters, which may include fuel type, operating temperature, process throughput, pressure or pressure drop, pH, recirculation rates, or other parameters unique to the operation of the unit being tested.

**5. Reporting Requirements**

A final test report must be prepared and submitted (hard copy and electronic) to SWCAA within forty-five (45) calendar days of test completion and, at a minimum, must contain the following information:

- (a) A brief description of the purpose of the test, for example, an initial test, a periodic test required by an ADP, a test required by a federal, state, or local rule or regulation, or a test required to determine compliance with a Notice to Correct;
- (b) Description of the unit being tested, including manufacturer, model number, serial number, and design capacity of the equipment;
- (c) The location and description of the discharge point (stack, port, etc.), including the dimensions (diameter, length, and width, or other) and height above ground level. A photo of the discharge point is highly recommended;
- (d) The location of the sample ports or test location and a description of how the sampling location relates to the discharge point. For example, the sampling location may be in a square duct some distance away from the discharge point, which is a round stack. A photo of the sample ports or test location is highly recommended;
- (e) Time and date of the test and identification and qualifications of the personnel involved;
- (f) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit;
- (g) Test results for pollutants must be reported as specified below:
  - (1) Particulate matter (filterable, condensable, and total):
    - (A) gr/dscf, corrected to 7% O<sub>2</sub>;
    - (B) pound per hour (lb/hr); and
    - (C) pound per dry ton of sludge (lb/ton<sub>dry</sub>);
  - (2) NO<sub>x</sub>, CO, SO<sub>2</sub>, TGOC/VOC, 1,4-Dichlorobenzene, and Hydrogen chloride:
    - (A) ppmv, dry, corrected to 7% O<sub>2</sub>; and
    - (B) pound per hour (lb/hr);
  - (3) Metals (FBI exhaust, if tested): pound per hour (lb/hr)
  - (4) Metals (Sludge Feed): ppmw, dry or mg/kg, dry.
- (h) Summary of air pollution control systems or equipment operating conditions during the test;
- (i) Summary of production related parameters, including fuel type, operating temperature, process throughput (e.g., sludge rate in dry ton per hour for each run), pressure or pressure drop, recirculation rates, or other parameters unique to the operation of the unit being tested;
- (j) A description of the test methods or procedures used, including all field data, quality assurance/quality control procedures and documentation;

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- (k) A description of the analytical procedures used, including all laboratory data, quality assurance/quality control procedures and documentation;
- (l) Copies of field data and example calculations;
- (m) Chain of custody information;
- (n) Calibration documentation;
- (o) Discussion of any abnormalities associated with the results; and
- (p) A statement signed by the senior management official of the testing firm certifying the validity of the emission test report. Reports with material mistakes or misinformation may be rejected by SWCAA.

**6. Changes to Testing Requirements**

The emission test must be conducted as specified in the sections above. Minor modifications to the requirements above or to the testing schedule may be requested by the Permittee or their representative, in writing, to SWCAA. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee, in writing, of any approved modifications.



**APPENDIX B**  
**Air Treatment System Source Test Requirements**

Southwest Clean Air Agency

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**Appendix B**  
**Emission Testing Requirements**  
**Air Treatment System**

**1. Background:**

The purpose of this test is to quantify the emissions from the Air Treatment System and to provide an adequate assurance of compliance with the terms and conditions of ADP 18-3302.

**2. Test Constituents and Test Methods**

- (a) Sample ports, traverse points, volumetric flow rate, gas velocity, and temperature using 40 CFR 60 Appendix A Methods 1 and 2;
- (b) O<sub>2</sub> and CO<sub>2</sub> using 40 CFR 60 Appendix A Methods 3 or 3A;
- (c) Moisture content of stack gas using 40 CFR 60 Appendix A Method 4 or Oregon DEQ Method 4;
- (d) Total Gaseous Organic Concentration (TGOc)/Volatile Organic Compounds (VOC) using 40 CFR 60 Appendix A Method 25A (measured as propane). Method 18 or a non-methane cutter may be used to adjust Method 25A results to subtract non-VOC species. If a nonmethane cutter is used, it should be noted in the test plan. Additional documentation as to the accuracy and effectiveness of the cutter may be requested by SWCAA;
- (e) Acetone [67-64-1], Bis(2-ethylhexyl)phthalate (BEHP) [117-81-7], Chloroform [67-66-3], and Trichloroethylene [79-01-6] using EPA Compendium Method TO-15 or Method TO-13A with EPA SW-846 Method 8270C;
- (f) Hydrogen sulfide (H<sub>2</sub>S) [7783-06-4] using 40 CFR 60 Appendix A Method 16, 16A, or 16B or ASTM D5504; and
- (g) Chlorine (Cl<sub>2</sub>) [7782-50-5] using 40 CFR 60 Appendix A Method 26.

**3. Test Plan and Notification**

A comprehensive test plan must be submitted to SWCAA for review and approval a minimum of ten (10) business days prior to the proposed test date. SWCAA must be notified a minimum of three (3) business days prior to the proposed test date so that a SWCAA representative may be present during testing.

**4. Test Requirements**

- (a) Test Dates. The emission test must be performed no later than the end of February 2025. Subsequent emission tests must be conducted no later than the end of February 2025 every five (5) years later. Tests performed earlier than three (3) months prior to the required due date do not satisfy the testing requirements without prior written approval by SWCAA.
- (b) Test Duration. Tests must include a minimum of three (3) test runs, each at least one (1) hour in duration.
- (c) Test Location.
  - (1) The Permittee must provide the necessary platform and sampling ports for testing personnel to perform a test of the systems;
  - (2) Testing must be performed at the Air Treatment System exhaust or at a point upstream of the exhaust that meets the requirements of EPA Methods 1 and 2; and
  - (3) If only one duct is being tested, the Permittee must verify that the other duct is completely closed and the fan in the other duct is not in operation prior to performing the test.

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**APPENDIX B**  
**Air Treatment System Source Test Requirements (cont.)**

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**Appendix B**  
**Emission Testing Requirements**  
**Air Treatment System**

- (d) Source Operations. Source operations during the emissions test must be representative of the maximum intended level of operation. Inability to achieve maximum levels of intended operation must be preapproved by SWCAA in advance of performing the test.
- (e) Test Records. A complete record of operation related parameters, including process startups and shutdowns, control equipment startups and shutdowns, and any adjustments made during testing must be kept during emissions testing to correlate operations with emissions and must be recorded in the test results final report. Include a summary of production related parameters, which may include fuel type, operating temperature, process throughput, pressure or pressure drop, pH, recirculation rates, or other parameters unique to the operation of the unit being tested.

**5. Reporting Requirements**

A final test report must be prepared and submitted (hard copy and electronic) to SWCAA within forty-five (45) calendar days of test completion and, at a minimum, must contain the following information:

- (a) A brief description of the purpose of the test, for example, an initial test, a periodic test required by an ADP, a test required by a federal, state, or local rule or regulation, or a test required to determine compliance with a Notice to Correct;
- (b) Description of the unit being tested, including manufacturer, model number, serial number, and design capacity of the equipment;
- (c) The location and description of the discharge point (stack, port, etc.), including the dimensions (diameter, length, and width, or other) and height above ground level. A photo of the discharge point is highly recommended;
- (d) The location of the sample ports or test location and a description of how the sampling location relates to the discharge point. For example, the sampling location may be in a square duct some distance away from the discharge point, which is a round stack. A photo of the sample ports or test location is highly recommended;
- (e) Time and date of the test and identification and qualifications of the personnel involved;
- (f) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit;
- (g) Test results must be reported in:
  - (1) ppmv, dry, uncorrected for O<sub>2</sub>; and
  - (2) pound per hour (lb/hr);
- (h) Summary of air pollution control systems or equipment operating conditions during the test;
- (i) Summary of production related parameters, which may include fuel type, operating temperature, process throughput, pressure or pressure drop, pH, recirculation rates, or other parameters unique to the operation of the unit being tested;
- (j) A description of the test methods or procedures used, including all field data, quality assurance/quality control procedures and documentation;
- (k) A description of the analytical procedures used, including all laboratory data, quality assurance/quality control procedures and documentation;
- (l) Copies of field data and example calculations;
- (m) Chain of custody information;

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**APPENDIX B**  
**Air Treatment System Source Test Requirements (cont.)**

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**Appendix B**  
**Emission Testing Requirements**  
**Air Treatment System**

- (n) Calibration documentation;
- (o) Discussion of any abnormalities associated with the results; and
- (p) A statement signed by the senior management official of the testing firm certifying the validity of the source test report. Reports with material mistakes or misinformation may be rejected by SWCAA.

**6. Changes to Testing Requirements**

The emission test must be conducted as specified in the sections above. Minor modifications to the requirements above or to the testing schedule may be requested by the Permittee or their representative, in writing, to SWCAA. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee, in writing, of any approved modifications.

## APPENDIX C

### Emission Factors and Procedure for Emission Inventory

The following emission factors are taken from TSD 18-3302, which includes a more detailed analysis of the factor source or assumptions used to determine the factor:

#### *Fluidized Bed Incinerator*

Annual emissions from the FBI are calculated using the emission factors listed below, using natural gas usage, fuel oil usage, and sludge usage as inputs.

- Natural gas
  - NO<sub>x</sub>: 100 lb/MMcf [AP-42 §1.4 (7/1998)];
  - CO: 84 lb/MMcf [AP-42 §1.4 (7/1998)];
  - VOC: 5.5 lb/MMcf [AP-42 §1.4 (7/1998)];
  - SO<sub>2</sub>: 0.708 lb/MMcf [Mass balance];
  - PM/PM<sub>10</sub>/PM<sub>2.5</sub>: 7.6 lb/MMcf [AP-42 §1.4 (7/1998)];
  - benzene [71-43-2]: 0.0021 lb/MMcf [AP-42 §1.4 (7/1998)]; and
  - formaldehyde [50-00-0]: 0.075 lb/MMcf [AP-42 §1.4 (7/1998)].
- Fuel Oil
  - NO<sub>x</sub>: 20.0 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)];
  - CO: 5.0 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)] or may be included in the CEMS results when burning fuel oil and sludge;
  - VOC: 0.340 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)];
  - SO<sub>2</sub>: 0.216 lb/10<sup>3</sup> gal [Mass Balance];
  - PM: 3.30 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)];
  - PM<sub>10</sub>: 2.40 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)]; and
  - PM<sub>2.5</sub>: 2.10 lb/10<sup>3</sup> gal [AP-42 §1.3 (5/2010)].
- Sludge
  - NO<sub>x</sub>, TGO (as methane), SO<sub>2</sub>, PM<sub>10</sub> (total), and PM<sub>10</sub> (filterable): Most recent source test;
  - PM<sub>2.5</sub> is assumed to be equal to PM<sub>10</sub> (total);
  - CO: CEMS Data. Annual CO emissions are determined from CEMS data, but specific CO emissions from sludge are determined by subtracting the emissions from natural gas and fuel oil from the total CO emissions determined by the CEMS; and
  - arsenic [7440-38-2], cadmium [7440-43-9], chromium (II and III) [7440-47-3], hydrogen chloride [7647-01-0], lead [7439-92-1], mercury [7439-97-6], and nickel [7440-02-0]: Most recent source test (control efficiencies) and average results of the periodic sludge metals analysis.

#### *Sand Silo*

Annual emissions are calculated using the emission factors listed below, using hours of operation as the input:

- Sand Silo
  - PM, PM<sub>10</sub>, and PM<sub>2.5</sub>: 0.0214 lb/hr [SWCAA Factor]

**APPENDIX C**  
**Emission Factors and Procedure for Emission Inventory (cont.)**

*Air Treatment System*

Annual emissions are calculated using the emission factors listed below, using hours of operation as the input:

- Air Treatment System
  - VOC: Most recent source test; and
  - acetone [67-64-1], bis(2-ethylhexyl)phthalate [117-81-7], chlorine [7782-50-5], chloroform [67-66-3], hydrogen sulfide [7783-06-4], and 1,1,1-trichloroethylene [79-01-6]: Most recent source test.

*Wastewater Treatment Fugitives*

Annual emissions are calculated using the emission factors listed below, using annual wastewater throughput as the input:

- Wastewater Treatment Fugitives
  - VOC: 0.993 lb/10<sup>6</sup> gal
  - acetone [67-64-1]: 0.1185 lb/10<sup>6</sup> gal
  - acrylonitrile [107-13-1]: 1.22×10<sup>-5</sup> lb/10<sup>6</sup> gal
  - chloroform [67-66-3]: 0.005002 lb/10<sup>6</sup> gal
  - dichlorobenzene [25321-22-6]: 0.000765 lb/10<sup>6</sup> gal
  - ethylbenzene [100-41-4]: 0.00044 lb/10<sup>6</sup> gal
  - hydrogen sulfide [7783-06-4]: 0.311 lb/10<sup>6</sup> gal
  - methylene chloride [75-09-2]: 0.08768 lb/10<sup>6</sup> gal
  - tetrachloroethylene [127-18-4]: 0.01175 lb/10<sup>6</sup> gal
  - toluene [127-18-4]: 0.002605 lb/10<sup>6</sup> gal
  - xylene [1330-20-7]: 0.002524 lb/10<sup>6</sup> gal

*Emergency Generator Engines*

Annual emissions are calculated using the emission factors listed below, using hours of operation as the input:

- Emergency Generator Engines #1 and #2
  - NO<sub>x</sub>: 22.2 lb/hr [Caterpillar]
  - CO: 3.00 lb/hr [Caterpillar]
  - VOC: 0.40 lb/hr [Caterpillar]
  - SO<sub>2</sub>: 0.0106 lb/hr [Mass Balance]
  - PM/PM<sub>10</sub>/PM<sub>2.5</sub>: 0.20 lb/hr [Caterpillar]
- Emergency Generator Engine #3
  - NO<sub>x</sub>: 33.09 lb/hr [Caterpillar]
  - CO: 1.22 lb/hr [Caterpillar]
  - VOC: 0.77 lb/hr [Caterpillar]
  - SO<sub>2</sub>: 0.0114 lb/hr [Mass Balance]
  - PM/PM<sub>10</sub>/PM<sub>2.5</sub>: 0.25 lb/hr [Caterpillar]
- Emergency Pump Engines #1 and #2
  - NO<sub>x</sub>: 3.53 lb/hr [Caterpillar]
  - CO: 2.54 lb/hr [Caterpillar]
  - VOC: 0.14 lb/hr [Caterpillar]

**APPENDIX C**  
**Emission Factors and Procedure for Emission Inventory (cont.)**

- SO<sub>2</sub>: 0.0054 lb/hr [Mass Balance]
- PM/PM<sub>10</sub>/PM<sub>2.5</sub>: 0.13 lb/hr [Caterpillar]