PUGET SOUND
Clean Air Agency

**AIR OPERATING PERMIT**

Puget Sound Clean Air Agency
1904 3rd Avenue, Suite 105
Seattle, Washington 98101

Issued in accordance with the provisions of Puget Sound Clean Air Agency Regulation I, Article 7 and Chapter 173-401 WAC.

Pursuant to Puget Sound Clean Air Agency Regulation I, Article 7 and Chapter 173-401 WAC, Puget Sound Energy, Inc. (the permittee) is authorized to operate subject to the terms and conditions in this permit.

| | |
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| **PERMIT NO.: 10028** | **DATE OF ISSUANCE: <date>** |
| **ISSUED TO: Puget Sound Energy, Inc. (Frederickson Electric Generating Station)** | |
| **PERMIT EXPIRATION DATE: <issue + 5 yrs>** | |
| **PERMIT RENEWAL APPLICATION DUE DATE: <expiration date – 180 days>** | |

| | |
|---|---|
| NAICS, Primary: | 221112 |
| Nature of Business: | Fossil Fuel Electric Power Generation |
| Mailing Address: | 4717 192nd Street East, Tacoma, WA 98446 |
| Facility Address: | 4717 192nd Street East, Tacoma, WA 98446 |
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Puget Sound Clean Air Agency Approval:

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Senior Engineer

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## List of Abbreviations

| | |
|---|---|
| **ASTM** | American Society for Testing and Materials |
| **CFR** | Code of Federal Regulations |
| **CPIS** | Chemical Procurement Information System |
| **Ecology** | Washington State Department of Ecology |
| **EPA** | Environmental Protection Agency |
| **FCAA** | Federal Clean Air Act |
| **HAP** | Hazardous Air Pollutants |
| **NESHAP** | National Emissions Standard for Hazardous Air Pollutants |
| **O&M Plan** | Operation and Maintenance Plan |
| **PSCAA** | Puget Sound Clean Air Agency |
| **PSD** | Prevention of Significant Deterioration |
| **RCW** | Revised Code of Washington |
| **RICE** | Reciprocating Internal Combustion Engine |
| **SIP** | State Implementation Plan |
| **VOC** | Volatile Organic Compounds |
| **WAC** | Washington Administrative Code |

## Emission Unit Descriptions

The table below lists the emission units regulated under this permit located at the Puget Sound Energy, Frederickson Generating Station. The information in the table is for informational purposes only.

| Source | Description | Install Date | ISO Ratings at Base Load | |
|---|---|---|---|---|
| | | | Natural Gas | No. 2 Diesel |
| Emission Unit No. 1<br>Turbines 1 and 2<br>(One stack each unit) | General Electric (GE) Frame 7, Type 7101E, natural gas and distillate oil-fired, water-injected simple-cycle combustion turbine generator | ~1980 | 74.4 MW capacity (each)<br>788 MMBtu/hr heat input (LHV) (each) | 72.9 MW capacity (each)<br>780 MMBtu/hr heat input (LHV) (each) |
| Emission Unit No. 2<br>Two oil mist collection systems for Turbines 1 and 2<br>(One stack each unit) | Atmospheric ventilation of the lube oil system | ~1980<br>Replaced in 1993 | -- | -- |
| Emission Unit No. 3<br>Black Start Generator | 2,876 HP diesel fired | 2005 | -- | -- |
| Emission Unit No. 4<br>Diesel Fuel Tank | Steel tank with fixed cone roof and capacity of 4,468,100 gallons | 1981 | -- | -- |

## Section 1: Facility-wide Emission Limits

The requirements in Section 1 apply both facility-wide and to the specific emission units or activities in Section 2.

Table 1 lists the citation for the enforceable applicable requirement and the effective date in the second column. In some cases, the effective dates of the "Federally Enforceable" requirement and the "*State Only*" requirement are different because either the state (or local authority) has not submitted the regulation to the Environmental Protection Agency (EPA) for approval into the State Implementation Plan (SIP) and does not intend to, or the state (or local authority) has submitted it and EPA has not yet approved it. "*State Only*" effective dates are in italicized font and shall be understood to include the Washington Department of Ecology (Ecology) and the Puget Sound Clean Air Agency (PSCAA). When or if EPA approves the new requirement into the SIP, the old requirement will be automatically replaced and superseded by the new requirement. The new requirement will be enforceable by EPA as well as PSCAA from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement. In some cases, certain state rules will never be included in the SIP as they are outside EPA's authority. These include odor and nuisance types of rules.

The third column in the table is a brief paraphrase of the applicable requirement and is not enforceable.

The fourth column in the table identifies the compliance methods which include monitoring, recordkeeping, reporting and other obligations the permittee must conduct to comply with the permit. The full compliance methods are below Table 1. Following the compliance methods is an enforceable requirement of this permit.

The reference test method is listed in the fifth column. This is the test method to be used when a compliance test is required. If a reference test method is not listed with the requirement, this means a test method is not applicable to the requirement. Reference test methods included in the permit are listed in Section 7 of the permit and include the applicable averaging period.

In the event of conflict or omission between the information contained in the third column of the table and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern.

## General Facility-wide Emission Limits

The requirements in Table 1 and the associated compliance methods apply facility-wide.

**Table 1. Facility-wide Emission Limits**

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| **RACT Requirement** | | | | |
| 1.1 | PSCAA Reg I: 3.04(a) (7/1/12) | All emission units are required to use RACT. | No monitoring required | Not applicable |
| **Opacity and Particulate Matter Standards** | | | | |
| 1.2 | PSCAA Reg I: 9.03, except for 9.03(e) (5/1/04) | Shall not emit air contaminants which exhibit greater than 20% opacity for a period or periods aggregating more than 3 minutes in any hour | Condition No. 1.14 Opacity Monitoring | Ecology Method 9A |
| 1.3 | PSCAA Reg I: 9.09 (6/1/98) | Shall not emit particulate matter in excess of 0.05 gr/dscf from equipment used in a manufacturing process | Condition No. 1.14 Opacity Monitoring<br>Condition 5.12 Investigations and Testing | Puget Sound Clean Air Agency Method 5 |
| 1.4 | PSCAA Reg I: 9.09 (6/1/98) | Shall not emit particulate matter in excess of 0.05 gr/dscf corrected to 7% $O_2$ from fuel burning equipment. | Condition No. 1.14 Opacity Monitoring<br>Condition 5.12 Investigations and Testing | Puget Sound Clean Air Agency Method 5 |

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| **Fugitive Dust Emissions Standards** | | | | |
| 1.5 | PSCAA Reg. I: 9.15 (4/17/99) | Shall not cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include but are not limited to, the following:<br>(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;<br>(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;<br>(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or<br>(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.<br>Compliance with the provisions of this section shall not relieve the permittee of the responsibility of complying with Regulation I, Section 9.11 | Condition No. 1.15 Facility-wide Inspections<br>Condition No. 1.16 Complaint Response | Not applicable |
| 1.6 | WAC 173-400-040(4)(a) (9/16/18) | If engaging in materials handling, construction, demolition or any other operation which is a source of fugitive emissions, shall take reasonable precautions to prevent the release of air contaminants from the operation. | Condition No. 1.15 Facility-wide Inspections<br>Condition No. 1.16 Complaint Response | Not applicable |
| **Other Standards** | | | | |
| 1.7 | PSCAA Reg I: 9.11(a) (4/17/99) | Shall not cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property | Condition No. 1.15 Facility-wide Inspections<br>Condition No. 1.16 Complaint Response | Not applicable |

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 1.8 | *WAC 173-400-040(5) (9/16/18, State Only)* | Shall use recognized good practice and procedures to reduce to a reasonable minimum odors which may unreasonably interfere with any other property owners' use and enjoyment of their property. | Condition No. 1.15 Facility-wide Inspections<br>Condition No. 1.16 Complaint Response | Not applicable |
| 1.9 | *WAC 173-400-040(3) (9/16/18, State Only)* | Shall not deposit particulate matter beyond the property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of the property | Condition No. 1.15 Facility-wide Inspections<br>Condition No. 1.16 Complaint Response | Not applicable |
| **$SO_2$ Standard** | | | | |
| 1.10 | PSCAA Reg I: 9.07 (5/19/94) | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry), 1-hour average (corrected to 7% $O_2$ for fuel burning equipment) | Condition 5.12 Investigations and Testing | EPA Method 6C |
| **Hydrochloric Acid Standard** | | | | |
| 1.11 | *PSCAA Reg. I: 9.10(a) (6/9/88) (State Only)* | Shall not emit hydrochloric acid in excess of 100 ppm (dry), 1-hour average corrected to 7% $O_2$ for combustion sources | Condition 5.12 Investigations and Testing | EPA Method 26 or 26A |
| **Operations and Maintenance Standards** | | | | |
| 1.12 | PSCAA Reg. I: 9.20(b) (6/9/88) | Shall maintain equipment as defined in Regulation I, Section 1.07 or control equipment not subject to PSCAA Reg I Article 6 in good working order | Condition No. 1.15 Facility-wide Inspections<br>Condition Nos. 1.18 – 1.20 O&M Plan Requirements | Not applicable |
| 1.13 | PSCAA Reg I: 7.09(b) (2/1/17) | Shall develop and implement an O&M Plan to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III. The plan shall reflect good industrial practice. It shall include the elements described in Reg. I: 7.09(b).<br>Shall review the O&M Plan at least annually and update it as needed to reflect any changes in good industrial practice. The specific provisions of the O&M Plan shall not be deemed part of this permit. | Condition Nos. 1.18 – 1.20 O&M Plan Requirements | Not applicable |

## COMPLIANCE METHODS

### Opacity Monitoring

1.14 At least once per calendar month that the facility operates, the permittee shall conduct

inspections of the facility for visible emissions. Inspections are to be performed while the equipment is in operation during daylight hours. If visible emissions other than uncombined water are observed, the permittee shall, as soon as possible, but no later than 24 hours after the initial observation take at least one of the following response actions:

Take corrective action until there are no visible emissions, or

Record the opacity using Washington Department of Ecology Method 9A, or

Shut down the unit or activity until it can be repaired.

The permittee shall keep records of the inspections, including date and time of inspection, the name of the person conducting inspection, the results of the inspection, the time period over which visible emissions occurred, and any corrective action conducted. For opacity monitoring using Ecology Method 9A, the permittee is not required to comply with the test notification and reporting requirements in Conditions 5.31 and 5.32.

Failure to implement at least one of the three response actions described above in this condition within 24 hours of the initial observation shall be reported as a deviation under Condition 5.5. Additionally, an exceedance of the standard as determined using Ecology Method 9A or an exceedance of the grain loading limit using Puget Sound Clean Air Agency Method 5 shall be reported as a deviation under Condition 5.5.

[WAC 173-401-615(1)(b) and (3)(b)]

**Facility-Wide Inspections**

1.15 At least once per calendar quarter, the permittee shall conduct a facility-wide inspection, including the following:

a. Examine the general state of compliance with the general applicable requirements, including a check of records to determine if complaints had been received and responded to as specified in Condition 1.16;

b. Inspect the facility for odor bearing contaminants and emissions of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property;

c. Inspect the facility for fugitive dust and track-out while conducting activities, such as construction, that are likely to generate fugitive dust or track-out; and

d. Evaluate the general effectiveness of the Operation & Maintenance (O&M) Plan.

Inspections of equipment and operations shall be conducted during daylight hours. The permittee shall initiate corrective action for any problems identified by these inspections as soon as possible, but no later than within 24 hours of identification or shut down the unit or activity until the problem can be corrected. The permittee shall keep records of the inspections, including date and time of inspection, the name of the person conducting inspection, the results of the inspection, any corrective action conducted, and whether complaints had been received.

Failure to implement one of the response actions described above within 24 hours of the initial observation shall be reported as a deviation under Condition 5.5.

[WAC 173-401-615(1)(b) and (3)(b)]

**Complaint Response**

1.16 The permittee shall record and investigate air pollution complaints as soon as possible, but no later than three days after receipt. The permittee shall identify complaints regarding these emissions as follows:

a. Any emissions that are, or likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property; or

b. Any emissions from fallout; or

c. Any track-out onto paved roads open to the public; or

d. Any emissions of odor-bearing air contaminants; or

e. Other emissions.

The permittee shall investigate the complaint and determine if there was noncompliance with an applicable requirement of this permit. If it is determined to be noncompliance, the permittee shall initiate corrective action for the problem as soon as possible but no later than within 24 hours of determination or shut down the noncompliant operation until it is repaired or corrected. Failure to implement corrective action or else shut down the unit/activity within 24 hours of initial observation of noncompliance shall be reported as a deviation under Condition 5.5.

Records for all complaints received concerning odor, fugitive emissions or nuisance must contain the following information:

a. The date and time of the complaint,

b. The name of the person complaining, if known,

c. The nature of the complaint, and

d. The date, time and nature of any corrective action taken.

[WAC 173-401-615(1)(b)]

**Maintenance and Repair of Insignificant Emission Units**

1.17 The permittee shall use good industrial practices to maintain insignificant emission units and equipment not listed in this permit. For such equipment, the permittee shall also promptly repair defective equipment. Good industrial practices may include following the manufacturer's operations manual or an equipment operations schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem.

[WAC 173-401-615(1)(b)]

**Operation and Maintenance (O&M) Plan Requirements**

1.18 The permittee's O&M Plan shall include procedures specifying how the permittee will assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III. For insignificant emission units, the O&M Plan shall refer to the requirements stated in Condition 1.17 of this permit. The plan shall reflect good industrial practice. In most instances, following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until repairs can be completed and taking measures to

prevent a recurrence of the problem may be considered good industrial practice. Determination of whether good industrial practice is being used will be based on available information such as, but not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The permittee shall use the results of the inspections required by of this permit in its annual review of the O&M Plan. The specific provisions of the O&M Plan, other than those required by this permit, shall not be deemed part of this permit.

[Puget Sound Clean Air Agency, Regulation I, Section 7.09(b)]

1.19 The O&M Plan shall be reviewed by the permittee at least annually and updated to reflect any changes in good industrial practice. The Plan shall include, but is not limited to, the following:

a. Periodic inspection of all equipment and control equipment;

b. Monitoring and recording of equipment and control equipment performance;

c. Prompt repair of any defective equipment or control equipment;

d. Procedures for start up, shut down, and normal operation;

e. The control measures to be employed to assure compliance with Condition 1.5 of this permit; and

f. A record of all actions required by the plan.

[Puget Sound Clean Air Agency, Regulation I, Section 7.09(b)]

1.20 The permittee shall document all inspections, tests, and other actions required by the O&M Plan, including the name of the person who conducted the inspection, tests or other actions; and the date and the results of the inspection, tests or other actions including corrective actions. The permittee shall maintain records of all inspections, tests, and other actions required by the O&M Plan on site and available for Puget Sound Clean Air Agency review.

[Puget Sound Clean Air Agency, Regulation I, Section 7.09(b)]

## Section 2: Emission Unit Specific Applicable Requirements

The requirements in Section 2 apply only to the emission units or activities listed in this section.

Tables in this section list the citation for the enforceable applicable requirements and the effective dates in the second column. All requirements are federally enforceable unless they are identified as "*State Only*".

The third column in the tables is a brief paraphrase of the applicable requirement and is not enforceable.

The fourth column in the tables identify the compliance methods which include monitoring, recordkeeping, reporting and other obligations the permittee must conduct to comply with the permit. The full compliance methods are immediately after each of the tables in this section. Following the compliance methods is an enforceable requirement of this permit.

The reference test method is listed in the fifth column. This is the test method to be used when a compliance test is required. In some cases where the applicable requirement does not cite a test method, one has been added. Reference test methods included in the permit are listed in Section 7 and include the applicable averaging period.

In the event of conflict or omission between the information contained in the third column of the tables and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern.

Emission units and activities in place at the time of permit issuance are listed in the tables in this section. These do not include insignificant emission units (See Section 9 of this permit).

## A. Emission Unit No. 1: Combustion Turbines 1 & 2

The requirements in Table 2 apply to Emission Unit No. 1 – Combustion Turbines. This emission unit consists of two natural gas and distillate-fuel fired GE 7101E 75 MW stationary combustion turbines with water injection.

**Table 2. Applicable Requirements Related to Combustion Turbines 1 & 2**

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.1 | PSCAA Reg I: 9.08(a) (5/1/04)<br>*RCW 70A.15.4510 (1991) State only* | It shall be unlawful for any person to cause or allow combustion of oil that exceeds any of the following limits unless allowed by a PSCAA OA issued under Reg I, Article 6. All limits are the maximum allowed except flash point, which is the minimum allowed.<br>• Ash 0.1%<br>• Sulfur, used oil 1.0%• Sulfur, fuel oil 2.00%<br>• Lead 100 ppm<br>• Arsenic 5 ppm<br>• Cadmium 2 ppm<br>• Chromium 10 ppm<br>• Total halogens 1,000 ppm<br>• PCBs 2 ppm<br>• Flash point 100 °F | Condition No. 2.23 and 2.24 Recordkeeping | Ash ASTM D482-00A,<br>Sulfur ASTM D3120-96,<br>Halogens EPA SW846, 9076,<br>PCB EPA SW846, 8080,<br>Lead EPA 600/4-81-045, 200.7 |
| 2.2 | Order of Approval No. 8436 Condition No. 3 (10/9/2002) | The permittee shall not consume more fuel than is equivalent to 6,900,000 MMBtu facility-wide, during any consecutive 12-month period (based upon a maximum capacity of 794.25 MMBtu/hr for each turbine unit, 1,020 Btu per cubic foot for natural gas, and 139,000 Btu per gallon of distillate oil). | Condition No. 2.22 Recordkeeping | Not applicable |
| 2.3 | Order of Approval No. 8436 Condition No. 4 (10/9/2002) | The permittee shall fire the turbine units only on natural gas and distillate oil with sulfur content no greater than 0.05 percent sulfur by weight, as purchased. | Condition No. 2.23 Recordkeeping | Not applicable |

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.4 | Order of Approval No. 6860 Condition No. 5 (8/22/1997)<br>PSD-X80-17 Condition No. 1 (9/25/80) | The permittee shall not exceed the hourly average emission concentration on a percent by dry volume basis corrected to 15% $O_2$ for:<br>$NO_x = 0.0075*(14.4/Y) + F$, or<br>Where Y is the manufacturer's rated heat rate at peak load in kilojoules/watt-hour which shall not exceed 14.4 kilojoules/watt-hour, and<br>Where F is:<br>= 0, when N (the fuel bound nitrogen by % weight) is less than or equal to 0.015;<br>= 0.04*N, when N is greater than 0.015 but less than or equal to 0.1;<br>= 0.004+0.0067*(N-0.1), when N is greater than 0.1 but less than or equal to 0.25; or<br>= 0.005, when N is greater than 0.25<br><br>The permittee shall not exceed the hourly average emission concentration on a percent by dry volume basis corrected to 15% $O_2$ for:<br>$SO_2$ = 0.009 (or a maximum fuel sulfur content of 0.5% by weight) | Condition Nos. 2.11-2.16 $NO_x$ Emission Monitoring<br>Condition Nos. 2.39 - , 2.49 $NO_x$ Compliance Assurance Monitoring<br>Condition No. 2.21, 2.23, 2.24 Recordkeeping<br>Condition 5.12 Investigations and Testing | EPA Method 20<br>EPA Method 6 |

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.5 | Order of Approval No. 6860 Condition No. 6 (8/22/1997)<br>PSD-X80-17 Condition No. 1 (9/25/80) | The permittee shall not exceed the emission rate for:<br>a. $NO_x$ = 388 lb/hr per turbine and 580 ton/year total for two turbines; and<br>b. $SO_2$ = 480 lb/hr per turbine and 720 ton/year total for two turbines. | Condition Nos. 2.11, $NO_x$ Emission Monitoring<br>Condition No. 2.21 Recordkeeping<br>Condition Nos. 2.39 - 2.49 NOx Compliance Assurance Monitoring | EPA Method 20<br>EPA Method 6 |
| 2.6 | Order of Approval No. 8436 Condition No. 5 (10/9/2002) | Emission of $NO_x$ shall not exceed:<br>a. 144 pounds per hour from any combustion turbine exhaust stack when fired on natural gas;<br>b. 246 pounds per hour from any combustion turbine exhaust stack when fired on distillate oil; and<br>c. 530 tons per year from the entire facility. | Condition Nos. 2.11 - 2.16 $NO_x$ Emission Monitoring<br>Condition No. 2.21 Recordkeeping<br>Condition Nos. 2.39 - 2.49 NOx Compliance Assurance Monitoring | EPA Method 20 |
| 2.7 | 40 CFR Part 60, Subpart GG<br>60.332(a)(1) (6/30/2016) | The permittee shall not cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:<br>$STD = 0.0075 \frac{(14.4)}{Y} + F$<br>Where:<br>STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) $NO_x$ emission concentration (% by volume at 15% $O_2$ on a dry basis)<br>Y = manufacturer's rated heat rate at manufacturer's rated load (kJ/W-hr) or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kJ/W-hr.<br>F = $NO_x$ emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4). | Condition Nos. 2.11 – 2.13 and 2.15 - 2.16 $NO_x$ Emission Monitoring | EPA Method 20 |
| 2.8 | 40 CFR Part 60, Subpart GG<br>60.333 (7/8/2004) | a. $SO_2$ emissions shall not exceed 0.015% by volume on a dry basis corrected to 15% $O_2$; or<br>b. Fuel combusted shall not contain total sulfur in excess of 0.8% by weight (8,000 ppmw). | Condition Nos. 2.17-2.20 Sulfur Monitoring | EPA Method 6 |

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.9 | PSCAA Reg I: 9.20(a) (6/9/88)<br>RCW 70A.15.2210(7) 1996 (State Only)<br>40 CFR 60.11(d)<br>(11/17/00) | All equipment must be maintained in good working order. | Condition No. 1.15 Facility-wide Inspections<br>Condition Nos. 1.18 – 1.20 O&M Plan Requirements | |
| 2.10 | Order or Approval No. 6860 Condition 1 (8/22/1997)<br><br>Order of Approval No. 8436 Condition 1<br>(10/9/2002) | Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of PSAPCA. | Condition 3.7 | |

## COMPLIANCE METHODS

### $NO_x$ Emission Monitoring

2.11 At least once every 5 years or whenever a single turbine accumulates 10,000 hours or more of operation, whichever is earlier, the permittee shall test that turbine to measure the $NO_X$ emissions using EPA Method 20 and in accordance with the procedures described in 40 CFR 60.335. The test results shall be converted into pounds per hour (lb/hr) and into pounds per quantity of heat input (i.e., lb/MMBtu).

[WAC 173-401-615(1)(a) and (b)]
[40 CFR 60.335]

2.12 The permittee shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40 CFR 60.335(b)(9) or an approved alternative. The fuel analyses required may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.

[40 CFR 60.334(h)(2) and 60.335(b)(9) and (b)(11)]

2.13 The permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption, actual water injection rate, and the ratio of water or steam to fuel being fired in the turbines. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the monitoring system shall be continuously operated at all times that one or both turbines are operating and record all required compliance data at least once each 15 minutes. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Requirements from 40 CFR

64.7(c) do not apply to the NSPS applicable requirements.

[40 CFR 60.334(a)]
[40 CFR 64.7(c)]

2.14 The permittee shall maintain “actual” water-to-fuel ratios no less than “required” water-to-fuel ratios, as measured by a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall comply with 40 CFR 60.334(a).

[Order of Approval No. 8436, Condition 5]

2.15 The permittee shall record the continuous monitoring data of the water injection system at least once 15 minutes of operation. The continuous monitoring data includes the date, time, fuel consumption rate (lb/sec), actual water injection rate (lb/sec), ambient temperature, and the corresponding actual and required water-to- fuel ratios. The permittee shall compute the hourly average fuel consumption rate (lb/sec), water injection rate (lb/sec), and water-to-fuel ratio from all readings taken over each clock hour. All data records shall be collected and maintained in accordance with Condition 6.3.

[WAC 173-401-615(1)(b) and (3)(b)]

2.16 The permittee shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the $NO_X$ emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan.

[40 CFR 60.334(g)]

**NSPS Sulfur Monitoring**

2.17 The permittee shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 2.18. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4,000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds, may be used.

[40 CFR 60.334(h)(1)]

2.18 The permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The permittee shall use one of the following sources of information to make the required demonstration:

a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required

[40 CFR 60.334(h)(3)]

2.19 For fuel oil, the permittee shall use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

[40 CFR 60.334(i)(1)]

2.20 Samples shall be analyzed using the following methods:

a. For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see §60.17); or

b. For gaseous fuels, ASTM D1072–80, 90 (Reapproved 1994); D3246–81, 92, 96; D4468–85 (Reapproved 2000); or D6667–01 (all of which are incorporated by reference, see §60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

The fuel analyses required may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.

[40 CFR 60.335(b)(10) & (b)(11)]

**Recordkeeping**

2.21 Within 30 days of the end of each month, the permittee shall calculate and record the $NO_x$ and $SO_2$ emissions from the two GE 7101E turbines for the previous month and for the previous 12-month period.

For NOx emissions the permittee shall use the most recent results from the testing required by Condition 2.11 or Condition 5.12. The NOx emissions for each 12-month period will be used to determine compliance with the limit of 530 tons per year in Condition 2.6 and 580 tons per year in Condition 2.6. The permittee shall maintain operation logs for a period of five years including emissions for each month in the 5-year period and the total emissions for each 12-month period in the 5-year period, which shall be made available to Agency personnel upon request.

For $SO_2$ emissions the permittee shall use either the results from the testing required by Conditions 2.17 through 2.20 or 5.12 or records required by Condition 2.23. The $SO_2$ emissions for each 12-month period will be used to determine compliance with the limit of 720 tons per year in condition 2.5. The permittee shall maintain operation logs for a period of five years including emissions for each month in the 5-year period and the total emissions for each 12-month period in the 5-year period, which shall be made available to Agency personnel upon request.

[Order of Approval No. 6860, Condition 4]

[WAC 173-401-615(1)(b)]

2.22 Within 30 days of the end of each month, the permittee shall record the facility wide fuel consumption for the previous month and also for the previous 12-month period.

[WAC 173-401-615(1)(b)]

2.23 The permittee shall receive only unused oil and shall maintain records demonstrating that fuel deliveries from all suppliers contain only unused oil. The permittee shall maintain records of the sulfur content of all distillate oil purchased and consumed by the facility. The permittee shall obtain and maintain distillate oil specifications from each distillate oil supplier and shall certify the distillate oil purchased from that supplier contains no used distillate oil and that distillate oil sulfur content does not exceed 0.05% sulfur by weight. The permittee shall evaluate records to assure certifications meet the applicable requirements and shall not accept the fuel if it is found to be above the sulfur content limits.

[Order of Approval No. 8436, Condition 4]
[WAC 173-401-615(1)(b)]

2.24 The permittee shall maintain a copy of all current fuel oil contracts for delivery of fuel oil for the combustion turbines and the black start engine. The contract shall certify that the fuel oil meets all the specifications listed in condition 2.1 and 2.66.

[WAC 173-401-615(1)(b) and (3)(b)]

2.25 The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction of a turbine at the facility; any malfunction of control equipment serving a turbine; and any periods during which a continuous monitoring device or system serving a turbine is inoperative.

[40 CFR 60.7(b)]

2.26 The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60.7(f) recorded in a permanent form suitable for inspection.

[40 CFR 60.7(f)]

**Reporting**

2.27 The permittee shall submit records of fuel usage and the $SO_2$ and $NO_x$ emissions to the Agency each month whenever the $SO_2$ or $NO_x$ emissions exceed 90% of the limit in Conditions 2.5 and/or 2.6 during any 12 consecutive month period.

[Order of Approval No. 6860, Condition 7]

2.28 The permittee shall notify the Agency no later than 10 days from the date of any exceedance of the emission limits in Conditions 2.5 and 2.6 The notification shall include an estimate of the resultant emissions and a narrative report of the cause, duration and steps taken to correct the problem and avoid a recurrence. The permittee shall

contemporaneously send a copy of this report to EPA.

[PSD-X80-17, Condition 3]

2.29 The permittee shall record deviations of requirements in Order of Approval No. 8436 and report to the Agency in accordance with 40 CFR 60.334(j), modified as follows.

a. **Nitrogen Oxides**. Any unit operating hour during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a),

b. **Sulfur Dioxide**. Any daily period during which the sulfur content of the fuel supplied to the storage tank for the gas turbine exceeds 0.05 percent.

[Order of Approval No. 8436, Condition 7]

2.30 The permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

a. For nitrogen oxides,

i. An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with 40 CFR 60.332, as established during the performance test required in 40 CFR 60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.

ii. A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.

iii. Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission (if the owner or operator claims an allowance for fuel bound nitrogen.) The permittee does not have to report ambient conditions if opts to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii), or if not using the ISO correction equation under the provisions of 40 CFR 60.335(b)(1).

b. For sulfur dioxide,

i. For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the

sulfur limit.

ii. If the option to sample each delivery of fuel oil has been selected, the permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. the permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted and shall evaluate excess emissions according to paragraph (i) as described above. When all of the fuel from the delivery has been burned, the permittee may resume using the as-delivered sampling option.

iii. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

[40 CFR 60.334 (j)(1) & (2)]

2.31 **Ice Fog**. Each period during which an exemption provided in 40 CFR 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

[40 CFR 60.334 (j)(3)]

2.32 All reports required under 40 CFR 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period.

[40 CFR 60.334 (j)(5)]

**NSPS Testing General Provisions**

2.33 At such times as may be required by the EPA Administrator under section 114 of the Act, the permittee shall conduct performance test(s) and furnish the EPA Administrator and Control Officer a written report of the results of such performance test(s).

[40 CFR 60.8(a)]

2.34 Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the EPA Administrator:

a. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

b. Approves the use of an equivalent method;

c. Approves the use of an alternative method the results of which have been determined to be adequate for indicating whether a specific source is in compliance;

d. Waives the requirement for performance tests because the permittee has demonstrated

by other means to the EPA Administrator's satisfaction that the affected facility is in compliance with the standard; or

e. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

Nothing in this paragraph shall be construed to abrogate the EPA Administrator's authority to require testing under Section 114 of the Act.

[40 CFR 60.8(b)]

2.35 Performance tests shall be conducted under such conditions as the EPA Administrator or the Control Officer shall specify to the permittee based on representative performance of the affected facility. The permittee shall make available to the EPA Administrator and Control Officer such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of start-up, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

2.36 The permittee shall provide the Control Officer at least 30 days prior notice of any NSPS performance test to afford the Control Officer the opportunity to have an observer present. If after 30 days' notice for an initially scheduled performance test there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the permittee shall notify the Control Officer as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Control Officer by mutual agreement.

[40 CFR 60.8(d)]

2.37 The permittee shall provide, or cause to be provided, performance testing facilities as follows:

a. Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures, and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

b. Safe sampling platform(s);

c. Safe access to sampling platform(s); and

d. Utilities for sampling and testing equipment.

[40 CFR 60.8(e)]

2.38 Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be

discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may, upon the EPA Administrator's or Control Officer's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8(f)]

## $NO_x$ COMPLIANCE ASSURANCE MONITORING

### Applicability

2.39 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64 apply to Emission Unit No. 1 (Combustion Turbines 1 & 2) with respect to the $NO_x$ emission limitations identified in Conditions 2.4, 2.5, and 2.6.

[40 CFR 64.2]

### Monitoring Approach

2.40 The permittee shall monitor date, time, fuel consumption rate (lb/sec), actual water injection rate (lb/sec), required water injection rate (lb/sec), ambient temperature, and corresponding actual and required water-to-fuel ratios at each turbine, using the methods specified in specified in Conditions 2.11 through 2.16

[40 CFR 64.3 & 64.6(c)(1)]

### Quality Assurance and Control Procedures

2.41 Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately and shall be accurate to within ± 5%.

2.42 The permittee shall establish a minimum water-to-fuel consumption ratio using the most appropriate of the following: the most recent compliant performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The permittee shall verify, and if necessary, update, the "required" water-to-fuel consumption ratio each time performance tests are run on a turbine as required in Condition 2.11.

[40 CFR 64.3(b)(3) & 64.6(c)(1)]

### Obligation to Monitor and Proper Maintenance

2.43 The permittee shall perform the monitoring for Emission Unit No. 1 specified in Condition 2.40 continuously whenever one or both turbines are in operation. For each full hour of turbine operation, at least four valid data points are required to be recorded, one in each 15-minute period. For a partial operating hour, at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average. At all times the Permittee shall maintain all monitoring equipment needed to satisfy condition 2.37, including but not limited to maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 60.13(h), (h)(2)(i) and (h)(2)(ii) & 40 CFR 64.7(a), 64.7(b) & 64.6(c)(3)-(4)]

### Definition of Excursion

2.44 An excursion is defined as any unit operating hour for which the average water-to-fuel ratio, taken in accordance with Condition 2.15, drops below the established minimum ratio. An excursion does not necessarily indicate an exceedance of the applicable $NO_X$ emission standards referenced in Condition 2.39 above, nor does evidence of an excursion preclude the permittee from certifying continuous compliance as provided in Condition 5.3 of this permit, if the permittee has other data on which to base a determination of compliance during the reporting period in which the excursion occurred.

[40 CFR 64.6(c)(2); 40 CFR 70.6(c)(5)(iii)(C)]

**Response to an Excursion**

2.45 Upon detecting an excursion, the permittee shall restore operation of the water injection unit and the affected gas turbine to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions. The response shall include minimizing the period of any start up, shutdown, or malfunction and taking any necessary corrective actions restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance(other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the water injection unit and the affected turbine(s),

[40 CFR 64.6(c)(3) & 64.7(d) & 64.7(d)(2)]

**Quality Improvement Plan (QIP)**

2.46 The permittee must develop a QIP if there are more than six reportable excursions during any semiannual reporting period referenced in Condition 5.4 of this permit. The QIP must comply with all elements of 40 CFR 64.8.

[40 CFR 64.6(c)(3) & 64.8]

**Reporting**

2.47 The monthly deviation report required by Condition 5.5 shall include:

a. Summary information on the number, duration and cause (including unknown cause, if applicable) of each excursion and the corrective action taken;

b. Summary information on every failure to meet the data availability requirements in Condition 2.43; and

c. A description of the actions taken to implement a QIP during the reporting period, if required. Upon completion of a QIP, the permittee shall include documentation that the implementation of the plan has been completed and describe how that plan has reduced the likelihood of occurrence of similar excursions in the next monthly deviation report required by Condition 5.5.

[40 CFR 64.6(c)(3) & 64.9(a)]

**Recordkeeping**

2.48 The recordkeeping required by Condition 6.3 shall include records of the monitoring data described in this section, corrective actions taken pursuant to Condition 2.45, any QIP prepared under Condition 2.46, and any activities taken to implement a QIP. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR 64, including data averages and calculations, or fulfilling the minimum data availability requirement. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure or the monitoring to provide valid data. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks or microfiche, provided that the use of such alternative media allows for expeditious inspection and review.

[40 CFR 64.6(c)(3), 64.7(c) & 64.9(b)]

**Need for Improved Monitoring**

2.49 If the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the monitoring required by this permit did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner of operator shall promptly notify PSCAA and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

## B. Emission Unit No. 2: Lube Oil Tanks

The requirements in Table 3 apply to Emission Unit No. 2 – Lube Oil Tanks. This emission unit includes two lube oil tanks with two Monsanto Brink fiber bed model Chase 56X108ES60-E mist eliminators, rated at 1,500 cfm each, one tank and mist eliminator for each turbine.

**Table 3. Applicable Requirements Related to Lube Oil Tank**

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.50 | Order of Approval No. 6461 Condition No. 4 (4/25/96) | The permittee shall install a pressure drop indicator across the mist eliminator elements and maintain a pressure between 8 and 19 inches of water gauge. | Condition No. 2.55 Demister Inspections | Not applicable |
| 2.51 | Order of Approval No. 6461 Condition No. 5 (4/25/96) | Particulate matter emissions from the mist eliminators shall not exceed 0.02 gr/dscf. | Condition No. 2.55 Demister Inspections | Puget Sound Clean Air Agency Method 5 |
| 2.52 | Order of Approval No. 6461 Condition No. 6 (4/25/96) | Shall not emit air contaminants which exhibit greater than 5% opacity for a period or periods aggregating more than 3 minutes in any hour | Condition No. 2.55 Demister Inspections | Ecology Method 9A |
| 2.53 | PSCAA Reg I: 9.20(a) (6/9/88)<br>RCW 70A.15.2210(7) 2020 (State Only) | All equipment must be maintained in good working order. | Condition No. 1.15 Facility-wide Inspections<br>Condition Nos. 1.18 – 1.20 O&M Plan Requirements | |
| 2.54 | Order of Approval No. 6461 Condition No. 1 (4/25/96) | Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of PSAPCA. | Condition 3.7 | |

### COMPLIANCE METHODS

#### Demister Inspections

2.55 At least once per month that the facility operates, the permittee shall perform an inspection of the demisters, including the following:

a. Check system ductwork for signs of cracking or holes;

b. Inspect pressure drop gauge reading for operation in the proper range, acceptable ranges that shall be clearly marked on or nearby the gauge. The acceptable range shall be 8 to 19 inches water gauge;

c. Check for proper fan operation; and

d. Check for evidence of emissions of "carryover".

The permittee shall initiate corrective action for any problems identified by these inspections as soon as possible, but no later than within 24 hours of identification or shut down the unit or activity until the problem can be corrected. The permittee shall keep records of the inspections, including date and time of inspection, the name of the person conducting inspection, the results of the inspection, and any corrective action conducted.

Failure to implement one of the response actions described above within 24 hours of the initial observation shall be reported as a deviation under Condition 5.5.

[WAC 173-401-615(1)(b) and (3)(b)]

## C. Emission Unit No. 3: Black Start Engine

The requirements in Table 4 apply to Emission Unit No. 3 – Black Start Engine. This emission unit includes an existing 2,876 HP diesel stationary black start reciprocating internal combustion engine (RICE) that was constructed pre-2005, but moved to the site in 2005. The engine is used solely to start up the turbines.

**Table 4. Applicable Requirements Related to the Black Start Engine**

| Reqmt No. | Enforceable Requirement | Requirement Paraphrase (Information Only) | Compliance Method | Reference Test Method (See Section 7) |
|---|---|---|---|---|
| 2.56 | 40 CFR 63.1(c)(1) (11/19/2020)<br>40 CFR 63.4(a)(1) (4/5/02)<br>40 CFR 63.6605(a) (1/30/13)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee shall comply with all applicable standards established under 40 CFR 63, Subparts A and ZZZZ. | Condition Nos.2.66-2.71 RICE Compliance Methods | |
| 2.57 | 40 CFR 63.6595(c) (1/30/13)<br>63.6645(a)(5) (11/19/20)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee must meet the applicable requirements in 40 CFR 63, Subpart A as listed in 40 CFR Part 63 Subpart ZZZZ, Table 8; except 63.8(e), (f)(4), (f)(6); 63.9(b)-(e), (g), (h) are not applicable. | Condition No. 2.69 RICE Compliance Methods | |
| 2.58 | 40 CFR 63.4(a)(2) (4/5/02)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee shall not fail to keep records, notify, report, or revise reports as required under 40 CFR Part 63. | Condition Nos.2.66-2.71 RICE Compliance Methods | |
| 2.59 | 40 CFR 63.4(a) and (b) (4/5/02)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee shall not operate any affected source in violation of the requirements of 40 CFR 63 and shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard | Condition No. 2.69 RICE Compliance Methods | |

| | | | | |
|---|---|---|---|---|
| 2.60 | 40 CFR 63.6603(a) (1/30/13)<br>40 CFR 63 Subpart ZZZZ, Table 2d, Line 4 (1/30/13)<br>40 CFR 63.6625(i) (1/30/13)<br>40 CFR 63.8(a)(1) (11/14/18)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | For an existing black start stationary compression ignition RICE located at an area source of HAP emissions, the permittee must comply with the requirements in Table 2d of the subpart:<br>• Change oil and filter every 500 hours of operation, or annually, whichever comes first;<br>• Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and<br>• Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.<br>The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement following the procedures in 40 CFR 63.6625(i). | Condition Nos.2.66-2.68 RICE Compliance Methods | |
| 2.61 | 40 CFR 63.6605(b) (1/30/13)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21 | At all times, the permittee must operate and maintain the existing stationary RICE in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Agency which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. | Condition No.2.69 RICE Compliance Methods | |
| 2.62 | 40 CFR 63.6625(e)(3) (1/30/13)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee must operate and maintain the existing black start stationary RICE according to the manufacturer's emission-related written instructions or develop its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. | Condition Nos.2.66-2.71 RICE Compliance Methods | |
| 2.63 | 40 CFR 63.6625(h) (1/30/13)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/21) | The permittee must minimize the engine's time spent at idle during startup and minimize startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. | Condition Nos.2.66-2.71 RICE Compliance Methods | |

| | | | | |
|---|---|---|---|---|
| 2.64 | 40 CFR 63.9(j) (11/19/20)<br>40 CFR 63.9(k) (11/19/20)<br>PSCAA Reg. III, Section 2.02 (4/23/15) (*State Only)*<br>PSCAA Reg. I, Section 3.25 (11/1/20) | Any change in information already provided under 40 CFR Part 63 shall be provided to the Agency in writing with 15 calendar days after the change and also submitted electronically to US EPA via CEDRI. | No monitoring required | |
| 2.65 | PSCAA Reg I: 9.08(a) (5/1/04)<br>RCW 70A.15.4510 *(1991)*<br>*State only* | It shall be unlawful for any person to cause or allow combustion of oil that exceeds any of the following limits unless allowed by a PSCAA OA issued under Reg I: 6.07. All limits are the maximum allowed except flash point, which is the minimum allowed.<br>*(Note: In the 3/25/04 version of Reg. I, 9.08(a), the reference to Reg I: 6.07 is changed to Article 6.)*:<br>• Ash 0.1%<br>• Sulfur, used oil 1.0%<br>• Sulfur, fuel oil 2.00%<br>• Lead 100 ppm<br>• Arsenic 5 ppm<br>• Cadmium 2 ppm<br>• Chromium 10 ppm<br>• Total halogens 1,000 ppm<br>• PCBs 2 ppm<br>• Flash point 100 °F | Condition Nos. 2.23 and 2.24 Recordkeeping | |

**RICE Compliance Methods**

2.66 The permittee shall demonstrate continuous compliance with the requirements in Table 2d of the subpart by complying with the following work or management practices in Table 6 item 9 of the subpart:

a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

b. Developing and following your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6640(a)]
[40 CFR 63.6655(d)]

2.67 The permittee shall maintain the following records to demonstrate compliance with the requirement:

a. Records of maintenance conducted on each engine in order to demonstrate that it was

operated and maintained according to the facility maintenance plan and requirements of the rule. [40 CFR 63.6655(e)(3)]

b. Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]

c. 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 63.6655(a)(5)]

[40 CFR 63.6655]
[63.10(b)(2)(ii)]

2.68 If the permittee chooses to utilize an oil analysis program in order to extend the specified oil change requirement, the oil analysis must be every 500 hours of operation, or annually, whichever comes first. The analysis program must at a minimum follow the requirements in 40 CFR 63.6625(i) for determining if an oil change is required. The permittee must maintain records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 CFR 63.6625(i)]

2.69 The Agency will determine compliance with design, equipment, work practice, or operational emission standards in 40 CFR 63 Subpart ZZZZ by review of records, inspection of the source, and other procedures specified in 40 CFR 63 Subpart ZZZZ. The Agency will make a finding concerning compliance with a non-opacity standard upon obtaining all the compliance information required by the standard.

[40 CFR 63.6(f)(2)(v) and (3)]

2.70 Records must be in a form suitable and readily available for expeditious review. Each record must be kept and readily accessible in hard copy or electronic format for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

[40 CFR 63.6660]
[40 CFR 63.10(b)(1)]

2.71 The permittee must report each instance in which the operating limitation in Table 2d of the subpart that applies was not met, each instance in which the requirements in Table 8 of 40 CFR Part 63, Subpart ZZZZ (Applicability of General Provisions) was not met, and any other deviation of the requirements in 40 CFR Part 63 Subpart ZZZZ, in accordance with the operating permit deviation reporting requirement in Condition 5.5.

[40 CFR 63.6640(b) and (e)]
[40 CFR 63.6650(f)]
[40 CFR 63.4(a)(2)]

# Section 3: Standard Terms and Conditions

### Duty to Comply

3.1 The permittee must comply with all conditions of this chapter 401 permit. Any permit noncompliance constitutes a violation of chapter 70A.15 RCW 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)]

3.2 It shall be unlawful for any person to cause or allow the operation of any source subject to the requirements of WAC 173-401 without complying with the provisions of WAC 173-401 and any permit issued under its authority.

[PSCAA Reg I, Section 7.05]

3.3 All sources and emission units are required to meet the emission standards of WAC 173-400.

[WAC 173-400-040(1)(a)]

### Need to Halt or Reduce Activity not a Defense

3.4 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)]

### Permit Actions

3.5 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[WAC 173-401-620(2)(c)]

### Property Rights

3.6 This permit does not convey any property rights of any sort, or any exclusive privilege.

[WAC 173-401-620(2)(d)]

### Duty to Provide Information

3.7 The permittee shall furnish to the Puget Sound Clean Air Agency, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Puget Sound Clean Air Agency copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Puget Sound Clean Air Agency along with a claim of confidentiality. Puget Sound Clean Air Agency shall maintain confidentiality of such information in accordance with RCW 70A.15.2510

[WAC 173-401-620(2)(e)]

[RCW 70A.15.2510]

**Permit Fees**

3.8 The permittee shall pay fees as a condition of this permit in accordance with the Puget Sound Clean Air Agency's fee schedule in accordance with Puget Sound Clean Air Agency's Regulation I, Section 7.07. Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70.A15 RCW.

[WAC 173-401-620(2)(f) and PSCAA Regulation I, Section 7.07]

[RCW 70A.15]

**Emissions Trading**

3.9 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)]

**Severability**

3.10 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)]

**Permit Appeals**

3.11 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 the Puget Sound Clean Air Agency within thirty days of receipt pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under §505(b) of the FCAA.

[WAC 173-401-620(2)(i)]

**Permit Continuation**

3.12 This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, 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)]

# Section 4: General Permitting Requirements

### Permit Renewal

4.1 The permittee shall submit a timely and complete Title V permit renewal application to the Puget Sound Clean Air Agency no less than six months prior the expiration of this permit.

[WAC 173-401-710(1)]
[WAC 173-401-500(3)(d)]

### Expired Permits

4.2 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application has been submitted consistent with Condition No. 4.1 of this permit and WAC 173-401-500. All terms and conditions of the permit shall remain in effect after the permit itself expires if a timely and complete permit application has been submitted.

[WAC 173-401-710(3)]

### Revocation of Permits

4.3 The Puget Sound Clean Air Agency may revoke a permit only upon the request of the permittee or for cause. The Puget Sound Clean Air Agency shall provide at least thirty days written notice to the holder of a current operating permit prior to revocation of the permit or denial of a permit renewal application. Such notice shall include an explanation of the basis for the proposed action and afford the permittee/applicant an opportunity to meet with the Puget Sound Clean Air Agency prior to the authority's final decision. A revocation issued 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. Nothing in this condition shall limit the Puget Sound Clean Air Agency's authority to issue emergency orders.

[WAC 173-401-710(4)]

### Reopening for Cause

4.4 This permit shall be reopened and revised under any of the circumstances described in WAC 173-401-730(1). Proceedings to reopen and issue a 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. Such reopening shall be made as expeditiously as practicable.

[WAC 173-401-730]

### Administrative Permit Amendments

4.5 The permittee may file for an administrative permit amendment in accordance with WAC 173-401-720(3). The permittee may implement the changes addressed in the request for an administrative request immediately upon submittal of the request. An “administrative permit amendment” is a permit revision that:

a. Corrects typographical errors;

b. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;

c. Requires more frequent monitoring or reporting by the permittee;

d. Allows for a change in ownership or operational control of a source where the Puget

Sound Clean Air Agency determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Puget Sound Clean Air Agency;

e. Incorporates into the permit the terms, conditions, and provisions from orders approving notice of construction applications processed under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of WAC 173-401-700, 173-401-725, and 173-401-800 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in WAC 173-401-600 through 173-401-650.

4.6 **Permit shield**. The Puget Sound Clean Air Agency shall, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in WAC 173-401-640 for administrative permit amendments made pursuant to Condition 4.5(e).

[WAC 173-401-720]

**Minor Permit Modifications**

4.7 For minor permit modifications that meet the following criteria, the permittee shall submit an application as described in WAC 173-401-725(2)(b):

a. Do not violate any applicable requirement;

b. Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

c. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

d. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid and applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the FCAA and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the FCAA; and

e. Are not modifications under any provision of the Title I of the FCAA.

4.8 The permit modification shall be accomplished in accordance with the criteria and procedures as described in WAC 173-401-725(2)(c) through (2)(e).

4.9 For group processing of modifications that meet the following criteria, the permittee shall submit an application as described in WAC 173-401-725(3)(b):

a. Meets the criteria for minor permit modification procedures in Term 4.7; and

b. Collectively are below ten percent of the emissions allowed by the permit for the emissions unit for which the change is requested, twenty percent of the applicable definition of major source in WAC 173-401-200, or five tons per year, whichever is least.

4.10 The permit modification shall be accomplished in accordance with the criteria and procedures as described in WAC 173-401-725(3)(c) through (3)(e).

4.11 The permittee may make the change(s) proposed in its minor permit modification application immediately after it files such as application provided that those changes requiring the submissions of a notice of construction application have been reviewed and approved by the Puget Sound Clean Air Agency. After the permittee makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions specified in WAC 173-401-725(2)(d), the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

4.12 **Permit shield**. The permit shield under WAC 173-401-640 shall not extend to minor permit modifications.

[WAC 173-401-725(2) and (3)]

**Significant Permit Modifications**

4.13 For significant permit modifications that meet the following criteria, the modification shall meet all requirements of Chapter 173-401 WAC, including those for applications, public participation, review by affected states, and review by EPA, as they apply to permit issuance and permit renewal:

a. Permit modifications that do not qualify as minor permit modifications or as administrative amendments;

b. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions.

Nothing herein shall be construed to preclude the permittee from making changes consistent with Chapter 173-401 WAC that would render existing permit compliance terms and conditions irrelevant.

[WAC 173-401-725(4)]
[WAC 173-401-500 (3)(c)]

**Changes Not Requiring Permit Revisions**

4.14 The permittee is authorized to make the changes described in WAC 173-401-722 without a permit revision, provided the following conditions are met:

a. The proposed changes are not Title I modifications;

b. The proposed changes do not result in emissions which exceed those allowable under the permit, whether expressed as a rate of emissions, or in total emissions;

c. The proposed changes do not alter permit terms that are necessary to enforce limitations on emissions from the units covered by the permit; and

d. The facility provides the administrator and PSCAA with written notification at least seven days prior to making the proposed changes except that written notification of a change made in response to an emergency shall be provided as soon as possible after the event.

Changes described in WAC 173-401-722 include Section 502(b)(10) changes (changes that contravene an express permit term, but do not included changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are

monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements), SIP authorized emission trading, and emission caps. Requirements for notification are included in WAC 173-401-722(2), (3) and (4)

4.15 The permit shield does not apply to any 502(b)(10) change or SIP authorized emission trading, but does extend to terms and conditions that allow increases or decreases in emissions under changes to emission caps.

4.16 The permittee shall comply with applicable preconstruction review requirements.

4.17 The permittee and PSCAA shall attach each notice to their copy of the relevant permit.

[WAC 173-401-722]

**Off Permit Changes**

4.18 The permittee is allowed to make changes not specifically address or prohibited by the permit terms and conditions without requiring a permit revision, provided that the proposed changes do not weaken the enforceability of existing permit conditions. Any change that is a Title I modification must be submitted as a permit revision. Each change shall meet all applicable requirement and shall not violate any existing permit term or condition.

4.19 The permittee shall provide contemporaneous written notice to PSCAA and EPA of such change, except for changes that qualify as insignificant under WAC 173-401-530. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

4.20 The change shall not qualify for the permit shield.

4.21 The permittee shall comply with applicable preconstruction review requirements.

4.22 The permittee shall keep a record describing changes made that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes.

[WAC 173-401-724]

**Duty to Supplement or Correct Application**

4.23 Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, 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.

[WAC 173-401-500(6)]

**Notice of Construction**

4.24 Except for the exemptions provided in Sections 6.03(b) and (c) of Puget Sound Clean Air Agency's Regulation I, it shall be unlawful for any person to cause or allow the establishment of a new source, or the replacement or substantial alteration of control equipment installed on an existing source, unless a "Notice of Construction application" has been filed and an "Order of Approval" has been issued by the Puget Sound Clean Air Agency. The exemptions in PSCAA Regulation I, 6.03(b) and (c) do not apply to projects or sources identified in PSCAA Regulation I, 6.03(a)(1) – (5).

[PSCAA Regulation I, Section 6.03(a)]
[PSCAA Regulation I, Section 6.01(a)]

**New Source Notification**

4.25 Except for projects or sources identified in PSCAA Regulation I, 6.03(a)(1) – (5), a Notice of Construction application and Order of Approval are not required for the new sources identified in PSCAA's Regulation I, Section 6.03(b), provided that a complete notification is filed with the PSCAA.

[PSCAA Regulation I, Section 6.03(b)]

**Prevention of Significant Deterioration (PSD)**

4.26 For a new major source stationary source or a major modification to an existing major stationary source as defined in WAC 173-400-720, the permittee must comply with the requirements in WAC 173-400-700 through 750. Ecology is the permitting agency for the PSD program in WAC 173-400-700 through -750.

[PSCAA Regulation I, Section 6.01]

**Notice of Completion**

4.27 Within 30 days of completion of the installation or modification of a stationary source subject to the Condition No. 4.24 of this section, the permittee shall file a Notice of Completion with PSCAA. Each Notice of Completion shall be submitted on a form provided by the PSCAA and shall specify the date upon which operation of the stationary source has commenced or will commence.

[PSCAA Regulation I, Section 6.09]

# Section 5: General Compliance Requirements

### Schedule of Compliance

5.1 For applicable requirements with which the source is in compliance, the permittee will continue to comply with such requirements.

For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis.

[WAC 173-401-630(3)]
[WAC 173-401-510(2)(h)(iii)]

### Responsible Official Certification

5.2 Except as provided for in Condition 5.6, Certification Upon Submittal, any application form, report, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required by a responsible official under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[WAC 173-401-520]
[WAC 173-401-630(1)]

### Compliance Certification

5.3 The permittee shall submit an annual certification of compliance with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The original signed compliance certification shall be submitted to the Puget Sound Clean Air Agency and a copy of the compliance certification shall be submitted to EPA Region 10 once per year.

The first compliance certification for this permit renewal covers the period commencing on the March 21, 2022 and ending on December 31, 2022 and is due January 30, 2023. All ensuing annual compliance certifications cover the calendar year commencing January 1 and ending December 31 and are due by January 30 of the following calendar each year. Each certification shall include the following:

a. The identification of each term or condition of the permit that is the basis of the certification;

b. The compliance status;

c. Whether compliance was continuous or intermittent; and

d. The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with WAC 173-401-615 (3)(a).

The permittee shall also submit all annual compliance certifications to Puget Sound Clean Air Agency in electronic format as an attachment to an e-mail message to facilitysubmittal@pscleanair.gov (or any other email address identified by the Agency). The electronic submittal is due on the same date as the original signed compliance certification required by this section. The date the document is received by the Agency e-mail system is considered the submitted date of the report.

Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification need only to be submitted once every six

months, covering all required reporting since the date of the last certification, provided that the certification specifically identifies all documents subject to the certification.

The semiannual certifications shall cover the calendar months of January through June, and July through December.

[WAC 173-401-630(5)]
[PSCAA Regulation I, Section 7.09(c)]

**Semiannual Report**

5.4 The permittee shall submit the reports of any required reportable monitoring at least once every six months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with WAC 173-401-520. The report periods and submittal due dates are as shown below.

a. Reporting period covering January 1 – June 30. Report submittal due date is July 30.

b. Reporting period covering July 1 – December 31. Report submittal due date is January 30.

The permittee shall also submit the semiannual reports to Puget Sound Clean Air Agency in electronic format as an attachment to an e-mail message to facilitysubmittal@pscleanair.gov (or any other email address identified by the Agency) by July 30 for the January 1 – June 30 reporting period and by January 30 for the July 1 – December 31 reporting period. The date the document is received by the Agency e-mail system is considered the submitted date of the report.

[WAC 173-401-615 (3)(a)]
[PSCAA Regulation I, Section 7.09(c)]

**Deviation Report**

5.5 The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

a. Periods of operation during which water injection is not required in order to maintain compliance, based upon water injection curves developed in accordance with Order of Approval No. 8436, shall not be reported as deviations, even though these periods are defined as periods of excess emissions under 40 CFR 60.334(j)(1)(i)(A).

b. For deviations which represent a potential threat to human health or safety, "prompt" means as soon as possible, the permittee shall report by e-mail to facilitysubmittal@pscleanair.gov (or any other email address identified by the Agency) as soon as possible but in no case later than twelve hours after the deviation is discovered.

c. For any occurrence of emissions in excess of the PSD limits specified in Conditions 2.4 and 2.5, the permittee shall report by e-mail to facilitysubmittal@pscleanair.gov (or any other email address identified by the Agency) within 10 days after each occurrence.

d. All other deviations shall be reported in writing and by email no later than thirty days after the end of the month during which the deviation is discovered.

e. For each CAM excursion, the report shall include the information described in Condition 2.47 of the permit, including any required information on implementation of a QIP.

The permittee shall maintain a contemporaneous record of all deviations.

A Deviation Report may be certified by a responsible official at the time of submittal as provided in Condition 5.2 (Responsible Official Certification); however it is not required to be certified at the time of submittal. Any Deviation Report not certified at the time of submittal must be certified in the Semiannual report as per Condition 5.6 (Certification upon Submittal).

[WAC 173-401-615(3)(b)]

**Certification upon Submittal**

5.6 For the purpose of this permit, the following application forms, reports, and compliance certifications must be certified by the responsible official upon submittal:

- Annual Air Operating Permit Compliance Certification (WAC 173-401-630(5))
- Semiannual Air Operating Permit Report (WAC 173-401-615(3)(a))
- Administrative Permit Amendment Requests (WAC 173-401-720)
- Permit Modification Application (WAC 173-401-725)
- Renewal of Permit (WAC 173-401-710) (WAC 173-401-500(4))

For all other application forms, reports, and compliance certifications, the responsible official's certification needs only to be submitted once every six months in the semiannual report, covering all required reporting since the date of the last certification, provided that the certification specifically identifies all documents.

[WAC 173-401-630(5)]

**Mailing Address**

5.7 All notifications, reports, renewal/revision applications and compliance certifications required by this permit shall be submitted to:

Puget Sound Clean Air Agency
Attn: Compliance Program
1904 3rd Ave, Suite 105
Seattle, Washington 98101

5.8 For all the notifications, reports and compliance certifications required by this permit to be submitted to US Environmental Protection Agency, the mailing address is:

EPA Region 10, Mail Stop OAQ-107
Attn: Air Operating Permit
1200 Sixth Avenue
Seattle, Washington 98101

**Compliance Reports-Electronic Submittal**

5.9 The permittee shall submit complete copies of all required compliance reports to Puget Sound Clean Air Agency in electronic format as an attachment to an e-mail message to facilitysubmittal@pscleanair.gov (or any other email address identified by the Agency). The date the document is received by the Agency e-mail system shall be considered the submitted date of the report. Original written documents shall also be submitted for record purposes. Nothing in this condition waives or modifies any requirements established under other applicable regulations.

[PSCAA Regulation I, Section 7.09(c)]

**Data Recovery**

5.10 The permittee shall recover valid monitoring and recordkeeping data for each parameter according to any specific monitoring and recordkeeping requirements identified in Section 2 of this permit. If the specific monitoring and recordkeeping requirements in Section 2 of this permit do not address data recovery provisions, then the required data recovery is assumed to be 100% except as described in this section. However, no data need be collected during any period that the monitored process does not operate.

The Deviation Reports required by Condition 5.5 shall include an explanation for any instance in which the permittee failed to meet the data recovery requirements of this condition for any monitored process or parameter and any instances of reconstructing lost data. The explanation shall include the reason that the data was not collected and any actions that the permittee will take to ensure collection of such data in the future.

[WAC 173-401-615(1)(b)]

**Inspection and Entry**

5.11 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or an authorized representative to perform the following:

a. Enter upon the permittee's premises where a Title V 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 WAC 173-400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

[WAC 173-401-630(2)]
[PSCAA Regulation I, Section 3.05(b)]
[WAC 173-400-105(3)]

**Investigations and Testing**

5.12 For the purpose of determining compliance with an emission standard, the Puget Sound Clean Air Agency or Ecology shall have the authority to conduct testing of a source or to order the permittee to have it tested and to report the results to the Agency or Ecology. In the event the Agency or Ecology conducts the test, the Agency or Ecology shall provide the permittee an opportunity to observe the sampling and to obtain a sample at the same time.

[PSCAA Regulation I, Section 3.05(b)]
[WAC 173-400-105(2)]
[WAC 173-400-105(4)]

**Credible Evidence**

5.13 For the purpose of establishing whether or not a person has violated or is in violation of any provision of chapter 70.94 RCW, any rule enacted pursuant to that chapter, or any permit or order issued thereunder, nothing in this regulation shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

[PSCAA Regulation I, Section 3.06]

[RCW 70A.15]

**Emergency**

5.14 An emergency, as defined in WAC 173-401-645(1), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the conditions below are met.

a. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

ii. The permitted facility was at the time being properly operated;

iii. 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; and

iv. The permittee submitted notice of the emergency to the Puget Sound Clean Air Agency within two working 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 or safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

b. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in any applicable requirement.

[WAC 173-401-645]

**Excess Emissions**

*This section is in effect until the effective date of EPA's removal of the September 20, 1993, version of this section from the SIP. This section is not effective starting on that date.*

5.15 The permittee shall have the burden of proving to Puget Sound Clean Air Agency in an enforcement action that excess emissions were unavoidable. Excess emissions which represent a potential threat to human health or safety or which the permittee believes to be unavoidable shall be reported to Puget Sound Clean Air Agency as soon as possible. Other excess emissions shall be reported within thirty days after the end of the month during which the event occurred or as part of the routine emission monitoring reports. Upon

request by Puget Sound Clean Air Agency, the permittee shall submit a full written report including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

[WAC 173-400-107(1) & (3)]

5.16 Excess emissions determined to be unavoidable under Conditions 5.16, 5.17 or 5.18 of this permit shall be excused and not subject to penalty.

[WAC 173-400-107(2)]

5.17 Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the permittee reports as required under Condition 5.15 of this permit and adequately demonstrates that the excess emissions could not have been prevented through careful planning and design and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

[WAC 173-400-107(4)]

5.18 Excess emissions due to scheduled maintenance shall be considered unavoidable if the permittee reports as required under Condition 5.15 of this permit 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.

[WAC 173-400-107(5)]

5.19 Excess emissions due to upsets shall be considered unavoidable provided the permittee reports as required under Condition 5.15 of this permit and adequately demonstrates that:

a. The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

b. The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and

c. The operator took immediate and appropriate corrective action in a manner consistent with 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.

[WAC 173-400-107(6)]

**Excess Emissions Reporting**

*This section takes effect on the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the SIP.*

5.20 Notify the permitting authority:

a. When excess emissions represent a potential threat to human health or safety, the owner or operator must notify the permitting authority by phone or electronic means as soon as possible, but not later than twelve hours after the excess emissions were discovered.

b. For all other excess emissions, the owner or operator must notify the permitting authority in a report as provided in Condition 5.21.

[WAC 173-400-108(1)]

5.21 Report. The owner or operator must report all excess emissions to the permitting authority:

a. To claim emissions as unavoidable under WAC 173-400-109, the report must contain the information in Condition 5.22.

b. As provided in Condition 5.5 and Condition 5.22.

[WAC 173-400-108(2)]

5.22 For an excess emission event that the owner or operator claims was unavoidable under WAC 173-400-109, the report must include the following information:

a. Properly signed contemporaneous records or other relevant evidence documenting the owner or operator's actions in response to the excess emissions event.

b. Information on whether installed emission 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

c. All additional information required under Condition 5.27 supporting the claim that the excess emissions were unavoidable.

[WAC 173-400-108(4)]

**Unavoidable Excess Emissions**

*This section takes effect on the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the SIP.*

5.23 Excess emissions determined to be unavoidable under the procedures and criteria in this section are violations of the applicable statute, rule, permit, or regulatory order.

a. The permitting authority determines whether excess emissions are unavoidable based on the information supplied by the source and the criteria in Condition 5.27.

b. Excess emissions determined by the permitting authority to be unavoidable are:

i. A violation subject to WAC 173-400-230(3), (4), and (6); but

ii. Not subject to civil penalty under WAC 173-400-230(2).

[WAC 173-400-109(1)]

5.24 The owner or operator of a source shall have the burden of proving to the permitting authority in an enforcement action that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under Condition 5.27.

[WAC 173-400-109(2)]

5.25 Condition 5.23 does not apply to an exceedance of an emission standard in 40 CFR Parts 60, 61, 62, 63, and 72, or a permitting authority's adoption by reference of these federal standards.

[WAC 173-400-109(3)]

5.26 Excess emissions that occur due to an upset or malfunction during a startup or shutdown event are treated as an upset or malfunction under Condition 5.27.

[WAC 173-400-109(4)]

5.27 Excess emissions due to an upset or malfunction will be considered unavoidable provided the source reports as required by Condition 5.21 and adequately demonstrates to the permitting authority that:

a. The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

b. The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;

c. When the operator knew or should have known that an emission standard or other permit condition was being exceeded, 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. Actions taken could include slowing or shutting down the emission unit as necessary to minimize emissions;

d. If the emitting equipment could not be shut down during the malfunction or upset to prevent the loss of life, prevent personal injury or severe property damage, or to minimize overall emissions, repairs were made in an expeditious fashion;

e. 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;

f. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent possible; and

g. All practicable steps were taken to minimize the impact of the excess emissions on ambient air quality.

[WAC 173-400-109(5)]

**Permit Shield**

5.28 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. The permit shield does not apply to any insignificant emissions unit or activity so designated under WAC 173-401-530.

[WAC 173-401-640(1)]
[WAC 173-401-530(3)]

**Exclusions**

5.29 Nothing in WAC 173-401-640 or in this permit shall alter or affect the following:

a. The provisions of Section 303 of the FCAA (emergency orders), including the authority of the administrator under that section;

b. The liability of the permittee 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 section 408(a) of the FCAA;

d. The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA; or

e. The ability of the Puget Sound Clean Air Agency to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in chapter 252, Laws of 1993.

[WAC 173-401-640(4)]

**Compliance Test Methods**

5.30 Testing of sources for compliance with emission standards shall be performed in accordance with current U.S. Environmental Protection Agency approved methods unless specific methods have been identified in this permit.

[PSCAA Regulation I, Section 3.07(a)]

**Compliance Test Notification**

5.31 The permittee shall notify the Puget Sound Clean Air Agency in writing at least 21 days prior to any compliance test. Notification of a compliance test shall be submitted on forms provided by the Agency. Test notifications using the Agency forms do not constitute test plans. Compliance with this notification provision does not satisfy any obligation found in an order or other regulatory requirement to submit a test plan for Agency review. This notification requirement does not waive or modify test notification requirements found in other applicable regulations.

[PSCAA Regulation I, Section 3.07(b)]

**Compliance Test Report Submittal**

5.32 For any required compliance test, the permittee shall submit the compliance test report to the Puget Sound Clean Air Agency no later than 60 days after the test. The report shall include:

a. A description of the source and the sampling location;

b. The time and date of the test;

c. A summary of results, reported in units and for averaging periods consistent with the applicable emission standard;

d. A description of the test methods and quality assurance procedures employed;

e. The amount of fuel burned or raw material processed by the source during the test;

f. The operating parameters of the source and control equipment during the test;

g. Field data and example calculations; and

h. A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

[PSCAA Regulation I, Section 3.07(c)]

**Federal Enforceability**

5.33 All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the US EPA and citizens under the FCAA, except for those requirements designated as “State Only” in the tables below.

[WAC 173-401-625]

*Note: In some cases, there are two effective dates for the same state and local regulations. One of the dates reflects the “federally enforceable” regulation that has been approved by the EPA and is*

*part of the current federally-approved, state implementation plan (SIP). A more current version of the regulation may have been adopted by the Agency, but was either not submitted to EPA for approval into the SIP, or it has been submitted and EPA has not approved it yet. The table below lists state and local regulations that apply to the permittee. There are additional requirements in the WAC that may apply to other air operating permit sources, but do not apply to this permittee based on the information submitted by the permittee in their application. These rules are not included in this table. The "Rule Description" column includes the effective date of the version of the regulation that is approved in the SIP. This version of the rule is identified as "Federally Enforceable" in the third column of the table.. The version of a rule that is not currently approved in the SIP is identified as "State Only." If and when EPA approves a new version of the regulation into the SIP, the old version of the regulation will be replaced and superseded by the new version automatically. This table does not include the federally enforceable requirements of the SIP that are incorporated by reference into the Agency's Regulation I, Section 6.01. The entirety of Regulation I, Section 6.01.applies to the permittee.*

**Table 5. WAC Requirements in State Implementation Plan**

| Washington Administrative Code (WAC) | | |
|---|---|---|
| **Regulation** | **Rule Description (Effective Date)** | **Federal Enforceability** |
| WAC 173-400-020 | Applicability of WAC 173-400 (12/19/12) | Federally Enforceable |
| WAC 173-400-040 | General Standards for Maximum Emissions (916/18) | Federally Enforceable, sections (1)(a) & (b); (4); and (9)(b) only |
| WAC 173-400-091 | Voluntary Limits on Emissions (9/20/93) | Federally Enforceable with respect to Section 112 hazardous air pollutants |
| WAC 173-400-091 | Voluntary Limits on Emissions (4/1/11) | Federally Enforceable |
| WAC 173-400-105 | Records, monitoring, and reporting (11/25/18) | Federally Enforceable, except for section (7) |
| WAC 173-400-107 | Excess Emissions (9/20/93) | Federally Enforceable |
| WAC 173-400-107 | Excess Emissions (9/16/18) | State Only, not in SIP |
| WAC 173-400-108 | Excess Emissions Reporting (9/16/18) | State Only, not in SIP |
| WAC 173-400-109 | Unavoidable Excess Emissions (9/16/18) | State Only, not in SIP |
| WAC 173-400-114 | Replacement or substantial alteration of emission control technology (12/29/12) | State Only, not in SIP |
| WAC 173-400-205 | Adjustment for Atmospheric Conditions (3/22/91) | Federally Enforceable |
| WAC 173-400-700 through -750 | Review of major stationary sources of air pollution (4/1/11) | Federally Enforceable (Ecology) |
| WAC 173-400-720 through 173-400-750 | Prevention of Significant Deterioration (7/1/16) | Federally Enforceable (Ecology), except: 173-400-720(4)(a)(I through iv), (b)(iii)(C),and 173-400-750(2) second sentence |
| WAC 173-441 | Reporting of Emissions of Greenhouse Gases (various dates | State Only, not in SIP |

| Washington Administrative Code (WAC) | | |
|---|---|---|
| **Regulation** | **Rule Description (Effective Date)** | **Federal Enforceability** |
| RCW 70A.60 , recodified from 70.94.970 in 2020 and again in 2021 | Hydrofluorocarbons – Emissions Reductions | State Only, not in SIP |

**Table 6. PSCAA Requirements in State Implementation Plan**

| Puget Sound Clean Air Agency Regulation | | |
|---|---|---|
| **Regulation** | **Rule Description** | **Federally Enforceability** |
| Regulation I: Section 3.04 | Reasonably Available Control Technology (7/1/12) | Federally Enforceable, except (e) |
| Regulation I: Section 3.05 | Investigations by the Control Officer (3/17/94) | Federally Enforceable |
| Regulation I: Section 3.06 | Credible Evidence (11/14/98) | Federally Enforceable |
| Regulation I: Section 3.07 | Compliance Tests (5/1/06) | Federally Enforceable |
| Regulation I: Section 3.23 | Alternative Means of Compliance (11/1/96) | State Only, not in SIP |
| Regulation I: Section 6.01 | Components of New Source Review Program (8/1/18) | Federally Enforceable, except the parenthetical in 6.01(b) which states "as delegated by agreement with the US Environmental Protection Agency, Region 10." |
| Regulation I: Section 6.03 | New Source Review (11/1/15) | Federally Enforceable, except section (b)(10) |
| Regulation I: Section 6.09 | Notice of Completion (5/1/04) | Federally Enforceable |
| Regulation I: Section 6.10 | Work Done without an Approval (9/1/01) | Federally Enforceable |
| Regulation I: Section 7.09 | General Reporting Requirements for Operating Permits (2/1/17) | Federally Enforceable |
| Regulation I: Section 8.04 | General Conditions for Outdoor Burning (1/1/01) | Federally Enforceable |
| Regulation I: Section 8.04 | General Conditions for Outdoor Burning (11/1/08) | State Only, not in SIP |
| Regulation I: Section 8.07 | Fire Extinguisher Training (11/1/99) | State Only, not in SIP |
| Regulation I: Section 9.03 | Visual Standard (5/1/04) | Federally Enforceable, except (e) |
| Regulation I: Section 9.04 | Opacity Standards for Equipment with COM (5/1/04) | Federally Enforceable, except (d)(2) & (f) |
| Regulation I: Section 9.05 | Refuse Burning (1/13/94) | Federally Enforceable |
| Regulation I: Section 9.07 | Sulfur Dioxide Emission Standard (5/19/94) | Federally Enforceable |
| Regulation I: Section 9.08 | Fuel Oil Standards (5/1/04) | Federally Enforceable |
| Regulation I: Section 9.09 | Particulate Matter Emission Standards (6/1/98) | Federally Enforceable |
| Regulation I: Section 9.10 | Emission of HCl (6/9/88) | State Only, not in SIP |
| Regulation I: Section 9.11(a) | Detriment to Person or Property (4/17/99) | Federally Enforceable |
| Regulation I: Section 9.13 | Concealment and Masking Restricted (6/9/88) | Federally Enforceable |

| Puget Sound Clean Air Agency Regulation | | |
|---|---|---|
| **Regulation** | **Rule Description** | **Federally Enforceability** |
| Regulation I: Section 9.15 | Fugitive Dust Control Measures (4/17/99) | Federally Enforceable |
| Regulation I: Section 9.16 | Spray Coating Operations (12/2/10) | Federally Enforceable |
| Regulation I: Section 9.18 | Crushing Operations (3/2/12) | Federally Enforceable |
| Regulation I: Section 9.20 | Maintenance of Equipment (6/9/88) | Federally Enforceable |
| Regulation I: Section 15 | Nonroad Engines (2/1/12) | State Only, not in SIP |
| Regulation II, Section 1.04 | General Definitions (12/11/80) | Federally Enforceable |
| Regulation II, Section 1.05 | Specialty Definitions (9/1/03) | Federally Enforceable |
| Regulation II, Section 3.04 | Motor Vehicle and Mobile Equipment Coating Operations (9/1/03) | Federally Enforceable |
| Regulation III: Section 4.02 | Asbestos Survey Requirements (7/31/95) | State Only, not in SIP |
| Regulation III: Section 4.03 | Asbestos Notification Requirements (7/1/11) | State Only, not in SIP |
| Regulation III: Section 4.04 | Asbestos Removal Requirements (9/1/00) | State Only, not in SIP |
| Regulation III: Section 4.05 | Procedures for Asbestos Project (4/3/03) | State Only, not in SIP |
| Regulation III: Section 4.07 | Disposal of Asbestos Material (7/31/95) | State Only, not in SIP |

# Section 6: General Applicable Requirements

### Definitions

6.1 Unless otherwise defined in this permit, the terms used in this permit shall have the same meaning ascribed to them in the referenced regulation.

[WAC 173-401-200]

### General Recordkeeping Requirements

6.2 Upon notification by the Agency, the permittee shall maintain records on the type and quantity of emissions from the source and other information deemed necessary by the Agency to determine whether the source is in compliance with applicable emissions limitations and control measures.

[WAC 173-400-105]

### Retention of Records

6.3 The permittee shall retain records of all required monitoring data and support information for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[WAC 173-401-615(2)(c)]

### Asbestos

6.4 The permittee shall comply with 40 CFR Sections 61.145, 61.148 and 61.150 when conducting any renovation or demolition at the facility.

[40 CFR 61.145 and 150]

6.5 The permittee shall comply with Puget Sound Clean Air Agency Regulation III, Article 4 when conducting any asbestos project, renovation or demolition activities at the facility.

[PSCAA Regulation III, Article 4]

### Open Burning

6.6 It shall be unlawful for any person to cause or allow any outdoor burning unless the burning is in compliance with WAC 173-425.

[PSCAA Regulation I, Section 8.04]

6.7 No person shall conduct outdoor burning during an air pollution episode or a declared period of impaired air quality.

[WAC 173-425-050(3)]

6.8 Hand-held fire extinguishers training shall be conducted in accordance with PSCAA's Regulation I, Section 8.07.

[PSCAA Regulation I, Section 8.07]

### Stratospheric Ozone and Climate Protection

6.9 The permittee shall comply with the following standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

6.10 The permittee may switch from any ozone-depleting substance to any alternative approved pursuant to the Significant New Alternatives Program (SNAP), 40 CFR Part 82, Subpart G, without a permit revision but shall not switch to a substitute listed as unacceptable pursuant to such program.

[40 CFR 82.174]

6.11 Any certified technician employed by the permittee shall keep a copy of their certification at their place of employment.

[40 CFR 82.166(1)

6.12 The permittee shall not willfully release any regulated refrigerants and substitutes and shall use refrigerant extraction equipment to recover regulated refrigerants and substitutes when servicing, repairing or disposing of commercial or industrial air conditioning, heating, or refrigeration systems.

[RCW 70A.60.070(1) and (3), State Only]

**Chemical Accident Prevention Program**

6.13 This stationary source, as defined in 40 CFR 68.3, is subject to 40 CFR Part 68, the Chemical Accident Prevention Provisions. This stationary source shall comply with the requirements of Part 68 by the dates specified in §68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification required by Condition 5.3.

[40 CFR 68.10]

**Concealment or Masking**

6.14 It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminant which would otherwise violate this article.

[PSCAA Regulation I, Section 9.13(a)]

6.15 It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

[PSCAA Regulation I, Section 9.13(b)]

**False Statement**

6.16 No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70A.15 or 70A.25 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.

[WAC 173-400-105(6)]

[RCW 70A.15 and 70A.25]

**Tampering**

6.17 No person shall render inaccurate any monitoring device or method required under chapter 70A.15 or 70A.25 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

[WAC 173-400-105(8)]

[RCW 70A.15 and 70A.25]

**Adjustment for Atmospheric Conditions**

6.18 The permittee shall not vary the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant except as directed according to air pollution episode regulations.

[WAC 173-400-205]

**Reasonably Available Control Technology (RACT)**

6.19 Emission standards and other requirements contained in rules or regulatory orders in effect at the time of operating permit issuance or renewal shall be considered RACT for purposes of permit issuance or renewal.

[WAC 173-401-605(3)]

**Annual Emission Report**

6.20 The permittee shall report annually to the Puget Sound Clean Air Agency listing those air contaminants emitted during the previous calendar year that equal or exceed the following in tons per year:

| | |
|---|---|
| Carbon monoxide (CO) | 25 |
| Facility combined total of all toxic air contaminants (TAC) | 6 |
| Any single toxic air contaminant (TAC) | 2 |
| Nitrogen oxide (NOX) | 25 |
| Particulate matter (PM10) | 25 |
| Particulate matter (PM2.5) | 25 |
| Sulfur oxide (SOX) | 25 |
| Volatile organic compounds (VOC) | 25 |

| | |
|---|---|
| Lead | 0.5 |

Annual emission rates shall be reported to the nearest whole ton per year for only those air contaminants that equal or exceed the thresholds above, except lead which must be reported to the nearest tenth of a ton. The permittee shall maintain records of information necessary to document any reported emissions or demonstrate that the emissions were less than the above amounts. The permittee shall submit to the Puget Sound Clean Air Agency any additional information required by WAC 173-400-105(1) and Puget Sound Clean Air Agency Regulation III, Section 1.11.

[Puget Sound Clean Air Agency Regulation I, Section 7.09(a)]
[WAC 173-400-105(1)]
[Puget Sound Clean Air Agency Regulation III, Section 1.11]

**Washington State Program for Reporting of Emissions of Greenhouse Gases**

6.21 Greenhouse gases emission reporting is mandatory for the permittee of any facility that emits ten thousand metric tons CO2e or more per calendar year in total GHG emissions from all applicable source categories listed in WAC 173-441-120. If subject to mandatory reporting requirements, the permittee shall follow all applicable procedures specified in WAC 173-441, including those for emission calculation, monitoring, quality assurance, missing data, recordkeeping, and reporting.

[WAC 173-441]

**Non-road Engines**

6.22 The permittee shall file a Notice of Intent to Operate for non-road engine(s) that are subject to the requirements of Puget Sound Clean Air Agency Regulation I, Article 15.

a. For nonroad engine with cumulative maximum rated brake horsepower > 2000 BHP, the notification of intent to operate and approval is required before operations begin.

b. For nonroad engine with cumulative maximum rated brake horsepower > 500 and ≤ 2000 BHP, the notification of intent to operate is required before operations begin.

[PSCAA Regulation I, Section 15.03 (b)(1) & (c)(1)]

6.23 The permittee must record the following information for each nonroad engine:

a. Site address or location;

b. Date of equipment arrival at the site;

c. Date of equipment departure from the site;

d. Engine function or purpose;

e. Identification of each component as follows:

i. Equipment manufacturer, model number and its unique serial number;

ii. Engine model year;

iii. Type of fuel used with fuel specifications (sulfur content, cetane number, etc.).

The permittee must keep the records of the current engine and equipment activity in hard copy or electronic form. These records can be maintained on-site or off-site for at least five years and must be readily available to the Puget Sound Clean Air Agency on request.

[PSCAA Regulation I, Section 15.03 (b)(2), (b)(3) & (c)(3)]

6.24 All nonroad engines must use ultra-low sulfur diesel or ultra-low sulfur bio-diesel (a sulfur content of 15 ppm or 0.0015% sulfur by weight or less), gasoline, natural gas, propane, liquefied petroleum gas (LPG), hydrogen, ethanol, methanol, or liquefied/compressed natural gas (LNG/CNG). A facility that receives deliveries of only ultra-low sulfur diesel or ultra-low sulfur bio-diesel is deemed to be compliant with this fuel standard.

[PSCAA Regulation I, Section 15.05(a)]

# Section 7: Test Methods and Averaging Periods

Unless otherwise specified in the rules or approval conditions, compliance shall be determined based on the averaging periods as described in the table below. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of circumstances beyond the operator's control, compliance may, upon EPA or Puget Sound Clean Air Agency approval, be determined from the arithmetic average of the two other runs.

**Table 7. Summary of Test Methods**

| Test Method | Title | Averaging Period |
|---|---|---|
| Puget Sound Clean Air Agency Method 5<br>Puget Sound Clean Air Agency Board Resolution 540, August 11, 1983 | Determination of Particulate Emissions from Stationary Sources | The test shall consist of 3 runs and at least 1-hour per run.<br>Determine the PM emission from the arithmetic average of the three runs. |
| EPA Method 5<br>40 CFR 60, Appendix A | Determination of Particulate Emissions from Stationary Sources | The test shall consist of 3 runs and at least 1-hour per run.<br>Determine the PM emission from the arithmetic average of the three runs. |
| EPA Method 6<br>40 CFR 60, Appendix A | Determination Of Sulfur Dioxide Emissions From Stationary Sources | The test shall consist of 3 runs and at least 1-hour per run. |
| EPA Method 6C<br>40 CFR 60, Appendix A | Determination of Sulfur Dioxide Emissions from Stationary Sources | The test shall consist of 3 runs and at least 1-hour per run. |
| EPA Method 7<br>40 CFR 60, Appendix A | Determination of Nitrogen Oxide Emissions from Stationary Sources | The test shall consist of 3 runs and at least 1-hour per run.<br>Determine the NOx emission from the arithmetic average of the three runs. |
| EPA Method 10<br>40 CFR 60, Appendix A | Determination of Carbon Monoxide | The test shall consist of 3 runs and at least 1-hour per run.<br>Determine the CO emission from the arithmetic average of the three runs. |
| EPA Method 20<br>40 CFR 60, Appendix A | Determination Of Nitrogen Oxides, Sulfur Dioxide, And Diluent Emissions From Stationary Gas Turbines | The test shall consist of 3 runs and at least 1-hour per run. |
| Ecology Method 9A, "Source Test Manual – Procedures for Compliance Testing", July 12, 1990 | Visual Determination of the Opacity of Emissions from Stationary Sources - for State and Puget Sound Clean Air Agency requirements | Any 13 opacity readings above standard in one hour, opacity readings taken in 15-second intervals. |
| EPA Method 25A<br>40 CFR Part 60, Appendix A, July 1, 2012 | Determination of total gaseous organic concentration using a flame ionization analyzer | The test shall consist of 3 runs and at least 1-hour per run.<br>Determine the emission from the arithmetic average of the three runs. |
| EPA Method 26 A<br>40 CFR 60, Appendix A | Determinations of HCl | The test shall consist of 1 run and at least 1-hour per run. |

| Test Method | Title | Averaging Period |
|---|---|---|
| Ash-ASTM D482<br>Sulfur –ASTM D3120<br>Halogens – EPA SW846,9076<br>PCB – EPA SW846, 8080<br>Lead – EPA 600/4-81-045,200.7<br>Flash Point – EPA SW846, 1020 | Fuel Oil Analysis | None applicable |

## Section 8: Inapplicable Requirements

Pursuant to WAC 173-401-640(2), the Puget Sound Clean Air Agency has determined that the requirements listed in the table do not apply to the facility, as of the date of permit issuance, for the reasons specified. The permit shield applies to all requirements so identified.

**Table 8. Inapplicable Requirements**

| Regulation | Description | Basis for Inapplicability |
|---|---|---|
| Puget Sound Clean Air Agency Reg I, Section 9.10(b) | Emission of Hydrochloric Acid for Refusing Burning Equipment | HCl shall not exceed 30 ppm corrected to 7% O2 from refuse burning equipment greater than 12 tons per day. The permittee does not operate refuse burning equipment. |
| Puget Sound Clean Air Agency Reg I, Article 5 | Registration Requirements | Operating permit sources are exempt from registration under RCW 70.94.161(17). |
| Puget Sound Clean Air Agency Reg I, Article 12 | Continuous Emission Monitoring System Requirements | The permittee does not have any requirements for continuous emission monitoring under Puget Sound Clean Air Agency Regulation I, Article 12. |
| Puget Sound Clean Air Agency Reg II, Articles 1, 2, & 3 | VOC Standards | The permittee does not have any equipment covered by the articles and would have to obtain approval to install any such equipment. |
| Puget Sound Clean Air Agency Reg III: Article 3 | Source-Specific Emission Standards | The permittee does not have any of the listed equipment and must obtain Puget Sound Clean Air Agency approval before installing any such equipment. Existing diesel tank contains distillate fuel with true vapor pressure <1.5 kPa. |
| WAC 173-400-070 | Emission Standards for Certain Source Categories | The listed source types are not present at the facility, and the permittee will need to submit a Notice of Construction and Application for Approval to install any of them. |
| WAC 173-400-105(5) | Continuous Monitoring and Recording | The rule applies only to fossil-fuel fired steam generators, sulfuric acid plants, fluid bed cat cracking units at refineries, and wood residue fuel-fired steam generators |
| WAC 173-400-120<br>WAC 173-400-131<br>WAC 173-400-136 | Bubbles Rules and Emission Reduction Credits | The permittee would need approval from the Puget Sound Clean Air Agency before any of these requirements apply. |
| WAC 173-400-151 | Retrofit Requirements for Visibility Protection. | Ecology has not identified the permittee as a source that can cause or contribute to impaired visibility in a Class I area. If Ecology makes such a determination, the Puget Sound Clean Air Agency will reopen the permit. |
| WAC 173-400-190 | Requirements for Nonattainment Areas | This is a requirement for Ecology to involve the Puget Sound Clean Air Agency and as such does not apply to the permittee. |
| WAC 173-400-210 | Emission Requirements of Prior Jurisdictions | WAC 173-400-210 is inapplicable because the permittee has always been in Puget Sound Clean Air Agency's jurisdiction. |
| Chapter 173-434 WAC | Solid Waste Incinerator Facilties | Chapter 173-434 WAC does not apply because the permittee is not a "solid waste incinerator facility" as defined under WAC 173-434-030 and would need to obtain an Order of Approval if it became a solid waste incinerator facility. |
| Chapters 173-476 WAC | Ambient Air Quality Standards | These are ambient air quality standards and by definition are not applicable requirements. |

| | | |
|---|---|---|
| Chapter 173-490 WAC | Emission Standards and Controls for Sources Emitting VOC | The permittee does not have any of the processes listed in WAC 173-490-030. |
| 40 CFR 60 Subparts D, Da, Db & Dc | Standards of Performance for Steam-Generating Units | Regulates fossil fuel fired steam generators but are not applicable since the permittee has simple cycle combustion turbine electrical generators that do not generate steam. |
| 40 CFR 60 Subparts K, Ka and Kb<br>Puget Sound Clean Air Agency Reg II: 2.04 | Standards Of Performance For Storage Vessels For Petroleum Liquids | 40 CFR 60 Subparts K and Ka, for storage vessels for petroleum liquids, and Puget Sound Clean Air Agency Regulation II, Section 2.04 are not applicable to tanks storing distillate with a true vapor pressure less than 1.5 psia. Subpart Kb is not applicable to the tanks currently on site because they were constructed before 1984 and have not been modified since. Puget Sound Clean Air Agency Regulation II, Section 2.04 is not applicable because the fuel has a true vapor pressure less than 1.5 psia. |
| 40 CFR 60 Subpart IIII | Standards of Performance for Compression Ignition Internal Combustion Engines | The blackstart engine was manufactured prior to April 1, 2006. Therefore, Subpart IIII does not apply. |
| 40 CFR 60 Subpart KKKK | Standards Of Performance For Stationary Combustion Turbines | The Puget Sound Energy Frederickson facility was constructed before the Subpart KKKK applicability date of February 18, 2005. |
| 40 CFR Part 72 through 78<br>Chapter 173-406 WAC | Acid Rain Provisions | Simple cycle combustion turbines which commenced operation before November 15, 1990 are exempt from the acid rain provisions (40 CFR 72.6(b)(1) and WAC 173-406-103(2)(a)). Therefore, the requirements of the acid rain program are not applicable. |
| RCW 70.94.531 | Transportation Demand Management | The Puget Sound Clean Air Agency has determined that a Transportation Demand Management (TDM) plan, as required by RCW 70.94.531, does not meet the definition of applicable requirement because it does not refer to stationary sources. |

# Section 9: Insignificant Emission Units and Activities

## General

9.1 For the purpose of this permit, an emission unit or activity is insignificant based on one or more of the following:

a. Actual emissions of all regulated air pollutants from a unit or activity are less than the emission thresholds established in WAC 173-401-530(4).

b. The emission unit or activity is listed in WAC 173-401-532 as categorically exempt.

c. The emission unit or activity is listed in WAC 173-401-533 and is considered insignificant if its size or production rate based on maximum rated capacity is below the specified level.

d. The emission unit or activity generates only fugitive emissions as defined in WAC 173-400-030(41).

[WAC 173-401-530(1)]

9.2 No emissions unit or activity subject to a federally enforceable applicable requirement (other than generally applicable requirements of the state implementation plan) shall qualify as an insignificant emissions unit or activity. Generally applicable requirements of the state implementation plan are those federally enforceable requirements that apply universally to all emission units or activities without reference to specific types of emission units or activities.

[WAC 173-401-530(2)(a)]

9.3 This permit does not require testing, monitoring, recordkeeping or reporting or for insignificant emission units or activities, except as required by Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20 and their incorporation into this permit. Compliance with Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20 as defined in the terms of this permit, shall be deemed to satisfy the requirements of WAC 173-401-615 and 173-401-630(1).

[WAC 173-401-530(2)(c)]

9.4 Insignificant emission units and activities are subject to all General Applicable Requirements set forth in Section 6 of this permit. Where this permit does not require testing, monitoring, recordkeeping and reporting for insignificant emissions units or activities, the permittee may certify continuous compliance if there were no observed, documented, or known instances of noncompliance during the reporting period. Where this permit requires testing, monitoring, recordkeeping and reporting for insignificant emission units or activities, the permittee may certify continuous compliance when the testing, monitoring, and recordkeeping required by the permit revealed no violations during the period, and there were no observed, documented, or known instances of noncompliance during the reporting period.

[WAC 173-401-530(2)(d)]

## Documentation

9.5 Upon request from the PSCAA the permittee must provide sufficient documentation to enable the PSCAA to determine that the emission unit or activity has been appropriately listed as insignificant.

[WAC 173-401-530(5)(a)]

a. Upon request from the PSCAA, at any time during the term of the permit, if the permittee lists an activity or emissions unit as insignificant under condition No.9.1(a) of this section then upon request from the PSCAA the permittee shall demonstrate to the PSCAA that the actual emissions of the unit or activity are below the emission thresholds listed in WAC 173-401-530(4).

[WAC 173-401-530(5)(b)]

**Permit Revision**

9.6 An activity or emissions unit that qualifies as insignificant solely on the basis of Condition 9.1(a) of this section shall not exceed the emissions thresholds specified in WAC 173-401-530(4), until the permit is modified pursuant to WAC 173-401-725.

[WAC 173-401-530(6)]

**Table 9. Insignificant Emission Units Based on Maximum Rated Capacity**

| **The following units and activities are listed as insignificant based on maximum rated capacity per WAC 173-401-533.** | |
|---|---|
| **Description** | **WAC 173-401-533(2)** |
| Space heaters and hot water heaters using natural gas, propane or kerosene and generating less than five million Btu/hr. | WAC 173-401-533(2)(r) |
| | |

# Attachment 1. PSCAA Method 5 for Particulate

RESOLUTION NO. 540

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE PUGET SOUND AIR POLLUTION
CONTROL AGENCY ADOPTING MODIFIED
PARTICULATE SOURCE TEST PROCEDURES

WHEREAS, Regulation I Section 9.09(f) requires procedures for source sampling performed in connection with standards of Regulation I and II for particulate and gases to be done using current Environmental Protection Agency requirements or procedures and definitions adopted by the Board; and

WHEREAS, to conform to current safe and less toxic chemical storage, the particulate measurement procedures currently used by the Agency have been proposed for modification; and

WHEREAS, the Expanded Advisory Council reviewed and approved said source test laboratory procedure modifications; and

WHEREAS, a public hearing was held by the Puget Sound Air Pollution Control Agency Board of Directors on August 11, 1983, to allow public input and critique on the proposal; and

WHEREAS, the Board deems it necessary to adopt said modification to source test procedures; now therefore,

BE IT RESOLVED BY THE BOARD OF PUGET SOUND AIR POLLUTION CONTROL AGENCY:

The Board of Directors does hereby adopt the modifications to the source test procedures, a copy of which is attached hereto and made a part hereof.

PASSED AND APPROVED by the Board of Directors of the Puget Sound Air Pollution Control Agency held this 11th day of August, 1983.

PUGET SOUND AIR POLLUTION CONTROL AGENCY

By _____
Chairman

Attest:

_____
Air Pollution Control Officer

Approved as to form:

_____
Agency Attorney

# Proposed Revised PSAPCA

# Particulate Source Test Procedures

Engineering Division

Puget Sound Air Pollution Control Agency
200 West Mercer Street, Room 205
P.O. Box 9863
Seattle, Washington 98109

June 9, 1983

I. Procedures for Particulate Source Sampling

Unless otherwise authorized by the Control Officer, all particulate source sampling performed to demonstrate compliance with the emission standards of Regulation I shall be done using current Environmental Protection Agency Methods 1-5 contained in 40 CFR Part 60, Appendix A, as modified in Section II of this document.

II. Procedure for Determining Particulate Matter in the Impinger Catch (Back Half)

The analysis and calculations for Method 5 shall conform to that described by EPA in the current 40 CFR Part 60, Appendix A, except that the back half catch shall be included as particulate matter. The back half weight is the sum of the impinger catch (organic and inorganic) and the back half acetone rinse weights.

A. Sample Recovery of the Back Half

1. Purging

Whenever $SO_2$ interference is suspected, purge the impingers immediately after the test run is complete with $N_2$ or clean air for a minimum of one-half the sample volume.

2. Impinger Liquid

Measure the volume of water collected in all impingers and place the water from the first three impingers in a container. Thoroughly rinse all sample-exposed surfaces between the filter and fourth impinger with water and place in above container.

3. Acetone Rinse

Thoroughly rinse all sample-exposed surfaces between the filter and the fourth impinger with acetone and place the washings in a tared beaker to dry.

B. Analysis of the Back Half

1. Impinger Liquid Extraction

a. Add 50-100 mℓ of dichloromethane to the impinger liquid.

b. Spin for at least ten minutes.

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c. Pour the liquid into a separatory funnel and drain the organic phase into a tared beaker (organic fraction).

d. Drain the remaining liquid into a beaker and repeat Steps a, b, and c. Perform the extraction several times with fresh dichloromethane until the organic fraction is clear. Keep each organic extraction in a separate beaker.

e. Following the last extraction, drain the remaining liquid from the separatory funnel into a tared beaker (inorganic fraction).

f. Allow the organic fraction beakers to dry under a hood at room temperature.

g. Evaporate the inorganic fraction in such a manner that the beaker contents do not become exposed to temperatures greater then 212°F.

h. Dry weighed beakers containing a sample of the acetone, dichloromethane and a sample of distilled deionized water to check for blank weight.

i. Desiccate organic, inorganic and blank beakers for at least 24 hours at room temperature in a disiccator containing silica gel. Weigh to a constant weight and report the results to the nearest 0.1 mg. Constant weight is defined in Section 4.3 of Method 5.

2. Back Half Acetone Rinse

a. Dry the acetone rinse in a hood at room temperature.

b. Desiccate and weigh the beaker to constant weight and record.

C. Reagents

1. Water

Use distilled deionized water in the impingers and to rinse all glassware.

2. Acetone

Use reagent grade, $\leq$ 0.001 percent residue in glass bottles.

3. Dichloromethane

Use reagent grade, $\leq$ 0.001 percent residue in glass bottles.

## Attachment 2. Ecology Method 9A

Revised July 12, 1990

**STATE OF WASHINGTON**
**DEPARTMENT OF ECOLOGY**

**SOURCE TEST METHOD 9A**

**VISUAL DETERMINATION OF OPACITY FOR A THREE MINUTE STANDARD**

1. Principle

The opacity of emissions from stationary sources is determined visually by a qualified observer.

2. Procedure

The observer must be certified in accordance with the provisions of Section 3 of 40 *CFR* Part 60, Appendix A, Method 9, as in effect on July 1, 1990, which are hereby adopted by reference.

The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with -he sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume.direction, and when observing opacity of emissions from rectangular outlets (e. g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case, the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

The observer shall record the name of the plant, emission location, type of facility, observer's name and affiliation, and the date on a field data sheet. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.

The observer should make note of the ambient relative humidity, ambient temperature, the point in the plume that the observations were made, the estimated depth of the plume at the point of observation, and the color and condition of the plume. It is also helpful if pictures of the plume are taken.

Visual Determination of Opacity for a Three Minute Standard
Ecology Source Test Method 9A
Revised July 12, 1990 .
Page 2

Opacity observations wall be made at the point of greatest opacity in the portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15-second intervals.

When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible.

When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

3. Analysis

The opacity of the plume is determined by individual visual observations. Opacity shall be reported as the range of values observed during a specified time period, not to exceed 60 consecutive minutes. The opacity standard is exceeded if there are more than 12 observations, during any consecutive 60-minute period, for which an opacity greater than the standard is recorded.

4. References

Federal Register, Vol. 36, No. 247, page 24895, Dec. 23, 1971.

"Criteria for Smoke and Opacity Training School 1970-1971" Oregon-Washington Air Quality Committee.

"Guidelines for Evaluation of Visible Emissions" EPA 340/1-75-007.