

Statement of Basis for Puget Sound Energy (Frederickson)

Administrative Amendment 2

April 4, 2011

I. PURPOSE OF THIS STATEMENT OF BASIS

A. General

This document summarizes the legal and factual bases for the air operating permit conditions for Puget Sound Energy at Frederickson to be issued under the authority of the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington, Chapter 173-401 of the Washington Administrative Code and Puget Sound Clean Air Agency Regulation I, Article 7. Unlike the permit, this document is not legally enforceable. It includes references to the applicable statutory or regulatory provisions that relate to Puget Sound Energy's emissions to the atmosphere. In addition, this Statement of Basis provides a description of Puget Sound Energy's activities and a compliance history.

B. Modifications during the first permitting period

No modifications were made to the air operating permit during the first permitting period, which ran for the continuous year period beginning from March 21, 2000. There was a change to the facility, which was done as an "off-permit change," as allowed under WAC 173-401-724, and is described on page 2.

C. Renewal 1

This document also describes the first renewal to the Puget Sound Energy air operating permit (to run for the five year period beginning from the renewal permit issuance), briefly on page 3 and in greater detail on page 22.

II. SOURCE DESCRIPTION

A combustion turbine generator unit is a compact, self-contained power generating unit characterized by its modular construction. A turbine generator unit is composed of a compressor, turbine and electric generator sections. Combustion turbines operate on the same combustion principle as an aircraft jet engine. Air is compressed to a pressure 10 to 15 times that of atmospheric air by a multistage compressor. The compressed air mixes with atomized fuel and the mixture is ignited in the combustion chamber. Water may be injected into the combustion chambers to control the formation of nitrogen oxide. The resultant high temperature gases (approximately 1,900°F) expand through the power turbine section, driving the turbine, which in turn drives the compressor and the electrical generator. Exhaust gases at approximately 975°F are discharged through the exhaust stack. The configuration described above is known as a "simple-cycle" combustion turbine generator, which only generates electricity and via mechanical energy and does not produce steam.

The Puget Sound Energy Generating Station, located in the Port of Tacoma's Frederickson Industrial Park, Pierce County, Washington, consists of two simple-cycle combustion turbine generators, one distillate oil fuel storage tank, a water treatment system (for water injection NO_x control) and an electric substation. The combustion turbines are started, operated, and shut down either locally, or remotely from Puget Sound Energy's Redmond dispatch center.

The Puget Sound Clean Air Agency permitted the station in 1980 with two natural gas and distillate oil-fired, General Electric (GE) Frame 7, Type 7101E, simple cycle combustion turbine generators (Units 1 and 2). Each turbine has a base load rating of 74.7 megawatt (MW) and a peak cold weather rating of 89.4 MW. The facility, upon permitting, was found to be subject to the EPA New Source Performance Standard (NSPS) for combustion turbines, and a Prevention of Significant Deterioration (PSD) permit issued by EPA Region 10.

Natural gas is supplied from the Northwest Pipeline which runs adjacent to the site. Distillate fuel oil is the alternate fuel for Units 1 and 2. The alternate fuel is stored in Tank 1, which has a capacity of 4.2 million gallons.

Puget Sound Energy's total generating capacity at the site is approximately 150 MW base load and 178 MW peak cold weather rating. Base load rating is the full load continuous output of the turbine unit at 59°F and sea level (ISO) conditions, while the peak cold weather rating, 28°F and sea level, corresponds to the generating capability designed for use during the maximum load period of a designated time interval under specified weather and atmospheric pressure conditions. For the first few years of operation, Puget Sound Energy used the facility only as a peaking unit, but it was used almost continuously at maximum output during the "energy crisis" of the winter of 2000. It has been used only infrequently since the crisis.

III. PERMIT HISTORY

A. Original Permit

The Puget Sound Clean Air Agency received an air operating permit application from Puget Sound Energy (Frederickson) on June 7, 1995. The Puget Sound Clean Air Agency determined the application to be complete on July 28, 1995. The final air operating permit was issued on March 21, 2000.

B. Off-Permit Change under WAC 173-401-724

Puget Sound Energy submitted a Notice of Construction Application for replacement of emission control technology at an existing stationary source in May, 2002. The project was to install new GE Breech-Load Fuel/Water Nozzles rated at 84 gpm of water as control equipment for two existing 75 megawatt, GE Model PG7101E Stationary Gas Turbine Units, No. 1 and No. 2, and ancillary water supply equipment on two "skids." Order of Approval No. 8436 was issued on October 9, 2002, amending the original Order No. 8436, which had been issued on February 5, 2001. The final outcomes of this project are:

reductions in nitrogen oxides, lower emission limits for sulfur dioxide, and to clarify non-PSD applicability.

C. Renewal 1

On February 10, 2004 Puget Sound Energy submitted a Title V renewal application for the Puget Sound Energy Frederickson facility. The application consisted of a cover letter and critical items required under WAC 173-401-710, such as a compliance plan and certification by the responsible official. On September 16, 2005 the Puget Sound Clean Air Agency sent a letter to Puget Sound Energy indicating that the renewal application had been found to be complete. No substantive changes to the permit were requested by Puget Sound Energy or made by the Puget Sound Clean Air Agency, but numerous small items were changed, and those changes are described in detail beginning on page 22. Although the original permit had an expiration date of March 21, 2005, it continued to be in effect as a result a complete renewal permit application on file with this Agency. This permit continuation was a part of the original permit terms (Section VI.A(2)).

IV. COMPLIANCE HISTORY

A. Compliance and Inspection history prior to issuance of the original AOP

Prior to issuance of the original AOP, The Puget Sound Clean Air Agency inspected Puget Sound Energy at Frederickson on April 8, 1986, April 15, 1987, October 25, 1988, August 4, 1989, April 27, 1990, December 6, 1990, March 5, 1992, February 18, 1994, April 25, 1995, June 26 1995, February 12, 1996, July 16, 1996, July 17, 1997, July 14, 1998, October 26, 1998 and November 1, 1999. No notices of violation were issued by the Puget Sound Clean Air Agency to Puget Sound Energy during any of the inspections.

B. Complaint History since issuance of the original AOP

The Puget Sound Clean Air Agency has not received any complaints for this facility over the past five years.

C. Compliance and Inspection history since issuance of the original AOP

During the first five-year permit period, the Puget Sound Clean Air Agency conducted eight compliance inspections of Puget Sound Energy in Frederickson, WA. Inspection dates were: January 23, 2001; July 3, 2001; February 5, 2002; October 23, 2002; October 28, 2002; April 6, 2004; March 13, 2005, and November 22, 2005.

The Puget Sound Clean Air Agency has taken the following enforcement actions against Puget Sound Energy during the last five years:

Table 1 Enforcement Actions over the first AOP Period

Violation Date	NOV/WW #	Issue Date	Closure Date	Reg/AOP Citation	Note
02/01/01	3-000361	06/14/01	09/12/01	II.A.2(b)	Failure to keep required water and fuel flow rate logs as required under 40 CFR 60.334(a)
04/01/00	3-000362	06/14/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
05/01/00	3-000363	06/14/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
05/31/01	3-000364	07/12/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
07/01/00	3-000369	08/22/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
08/01/00	3-000370	09/12/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
09/01/00	3-000374	10/15/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit
10/01/00	3-000375	10/16/01	12/12/02	NOC 6860, Cond. 6/EU-1.3 PSD X80-17/EU-1.7	Exceedance of 580 tpy NO _x limit

V. EMISSION INVENTORY

Emissions at this facility come primarily from the two stationary gas turbines

Table 2 Criteria Pollutant Emissions, ton/yr

	2004	2003	2002	2001
Carbon Monoxide (CO)	1	1	1	79
Nitrogen Oxides (NO _x)	5	11	5	614
Particulate Matter (PM ₁₀)	<0.5	1	<0.5	24
Sulfur Dioxide (SO ₂)	1	3	<0.5	6
Volatile Organic Compounds,(VOC)	<0.5	<0.5	<0.5	8

VI. EXPLANATION OF APPLICABLE REQUIREMENTS

Applicable requirements are listed in several sections of this operating permit as outlined below. The permit only lists the requirements that the Puget Sound Clean Air Agency has determined to be within the scope of the definition of “applicable requirements” under the operating permit program. Puget Sound Energy is legally responsible for complying with all applicable requirements of the operating permit as well as other requirements that do not fit the definition of “applicable requirements” found in Chapter 173-401 of the Washington Administrative Code (Ch. 173-401 WAC). Some of the applicable requirements contain terms or monitoring, maintenance and recordkeeping that require detailed explanation in this Statement of Basis. The specific conditions are listed below, along with any necessary explanations in monitoring, maintenance and recordkeeping requirements.

A. Applicable Requirements in the AOP

1. How the tables in Section I work

Section I in Puget Sound Clean Air Agency air operating permits is set up in tabular form. Section I.A. contains the requirements that are applicable to Puget Sound Energy on a facility-wide basis. Section I.B. contains requirements applicable only to specific emission units within the facility. It should be noted here that all the requirements in Section I.A. apply to the specific emission units as well. If the monitoring, maintenance and recordkeeping method for any requirement in Section I.A. is more extensive for a specific emission unit, that requirement is repeated in Section I.B. with the additional monitoring, maintenance and recordkeeping requirements.

The tables in Section I of the air operating permit list all the local (Puget Sound Clean Air Agency), state (Department of Ecology), and federal (EPA) emission limits and emission limiting operational requirements that apply to the facility and emission units within the

facility. All requirements are federally enforceable unless they are identified in column two by the words “*STATE ONLY*.”

The first column identifies the requirement. I.A.1 is the first facility-wide requirement. EU-1.5 is the fifth requirement for Emission Unit 1.

The second column contains the actual rule citation for each individual requirement. This can be a Puget Sound Clean Air Agency requirement from Regulation I, II, or III, a Washington State Department of Ecology requirement (WAC or RCW), or a federal requirement (generally a PSD permit condition or a New Source Performance Standard requirement).

The third column (Date) contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable, or “SIP¹,” Requirement and the Non-Federally Enforceable, or “State/Local Only,” Requirement are different because either the state has not yet submitted the regulation to the EPA for approval into the State Implementation Plan (SIP) or the EPA has not yet approved it. “*STATE ONLY*” adoption dates are in *italicized* font. When the EPA does approve the new requirement into the SIP, the old requirement will be replaced and superseded by the new requirement. This replacement will take place automatically, with no changes being made to this permit until the permit is renewed. The new requirement will be enforceable by the EPA as well as the Puget Sound Clean Air Agency from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement.

The fourth (Requirement Paraphrase) column paraphrases the requirement. *The first and fourth columns are for information only and are not enforceable conditions of this permit.* The actual enforceable requirement is embodied in the requirement cited in the second and third columns.

The fifth column (Monitoring, Maintenance & Recordkeeping Method) identifies the methods described in Section II of the permit. Following these methods is required to “reasonably assure continuous compliance” with, and is an enforceable requirement of, this air operating permit. Note that all inspections, tests, and other actions must be documented (the specific recordkeeping requirement for this is in paragraph 4 of Subsection V.P of the air operating permit).

The sixth (Emission Standard Period) column identifies the averaging time for the reference test method. The last column (Reference Test Method) identifies the reference method associated with an applicable emission limit that is to be used if and when a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added.

¹ “SIP” is an abbreviation for “state implementation plan” which is a plan for improving or maintaining air quality and complying with the Federal Clean Air Act. The Federal Clean Air Act requires states to submit these plans to the US EPA for its review and approval. This plan must contain the rules and regulations of the state agency or local air authority necessary to implement the programs mandated by Federal law. Once the EPA adopts the plan or elements of it, the plan and its requirements become “federally enforceable” by EPA. New or modified state or local rules are not federally enforceable until they are “adopted into the SIP” by the EPA.

In the event of conflict or omission between the information contained in the fourth and sixth columns and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second and third columns, refer to the actual requirements cited.

2. How monitoring methods in Section II of the AOP were originally determined

These are the basic air operating permit requirements:

- Each air operating permit has to contain all the air quality requirements that apply to the facility.
- The permit has to describe exactly how the source would comply with each of the requirements.
- The “responsible official” for the facility has to certify “continuous compliance” with every applicable requirement.

Puget Sound Clean Air Agency air operating permits have the emissions standards and operating limits in tabular form in Section I of the air operating permit, and the monitoring methods in Section II. An air operating permit is not supposed to add any new requirements, or make any existing requirements more stringent, but sometimes “gap-filling” a monitoring method is necessary:

- All emission limits contained in EPA’s National Emission Standards for Hazardous Air Pollutants have acceptable monitoring methods built in. These may be simply placed in the air operating permit.
- PSD permits and minor new source review permits issued after the launch of the air operating program usually include monitoring methods that are designed to reasonably assure continuous compliance. Those also may be placed in the air operating permit.
- Older minor new source review permits, older federal New Source Performance Standards (NSPS), and state and local emission limits either had very little or no on-going monitoring. Special “gap-filling” monitoring methods had to be developed for these requirements, as provided under WAC 173-401-615(1)(b).

Whenever the Puget Sound Clean Air Agency uses a “gap-filling” monitoring method, we determine the monitoring frequency using criteria contained in EPA’s April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. We consider “the five criteria” in determining how often the facility should perform a monitoring activity: hourly, once per shift, daily, weekly, monthly, quarterly, annually, or once per five-year permitting period. The five criteria are:

- (1) Initial compliance. One source may have never have violated a requirement, but it still applies. The next source, however, may really have to work to stay in compliance with the requirement. Walk-around inspections for fugitive emissions should be done

more frequently at a steel mill than a truck assembly facility, for example.

- (2) Margin of compliance. The monitoring method and frequency are designed so that the source will identify a problem early and take corrective action before a violation occurs. The generic opacity limit on a fabric filter control device might be 20%, but a properly maintained baghouse should not have any visible emissions at all.
- (3) Variability of process and emissions. A highly variable process may need more frequent watching than one that runs only intermittently, or one that runs continuously at an “easy” rate.
- (4) Environmental impacts of problems. More frequent inspections would be required for a process for which a maintenance problem is likely to result in emissions that would have a significant environmental impact.
- (5) Technical considerations. The facility is required to periodically inspect and perform routine maintenance on all equipment in accordance with an acceptable operation and maintenance (O&M) Plan. What technical aspects of the equipment under consideration would influence inspection frequency above and beyond O&M Plan requirements? Usually it is sufficient to operate and maintain (and monitor) equipment in accordance with manufacturer’s instructions.

The statements of basis for all original air operating permits contained analyses of “the five factors” for each monitoring requirement for which a monitoring frequency was not set in an underlying requirement.

B. Section I.A. (Facility-Wide)

1. Requirement I.A.2 (Opacity)

Both WAC 173-400-040(1) and Puget Sound Clean Air Agency Regulation I, Section 9.03 standards are 20% opacity and apply to all stationary sources.

The monitoring method is based on monthly (during months that the facility operates) visual inspections of all emission points at Puget Sound Energy. Puget Sound Energy must take corrective action or use the reference test method, WDOE Method 9A, to determine opacity if any visible emissions are noted. The original permit called for *monthly* monitoring. This has been changed to *monthly during months that the facility operates* because there are many months during which the Puget Sound Energy Frederickson facility does not operate.

- (1) Initial compliance. The Puget Sound Clean Air Agency has not observed visible emissions from the facility during any inspection, nor has Puget Sound Energy during any scheduled monitoring inspection, or at any other time.
- (2) Margin of compliance. The monitoring method is designed so that the source will take corrective action before a violation of the underlying emission standard occurs.
- (3) Variability of process and emissions. With scheduled downtime and production fluctuations, emissions from Puget Sound Energy are intermittent but are relatively

constant on a yearly basis.

- (4) Environmental impacts of problems. A maintenance problem is unlikely to result in emissions that would have a significant environmental impact.
- (5) Technical considerations. Natural gas combustion yields virtually no particulate emissions. Operation on distillate oil almost never occurs, and when it does, emissions of particulate matter are also very low.

2. Requirements I.A.3 and I.A.4 (PM₁₀)

Puget Sound Clean Air Agency Regulation I, Section 9.09 limits particulate emissions to 0.05 grain per dry standard cubic foot (gr/dscf) from equipment used in a manufacturing process. WAC 173-400-060 limits particulate emissions to 0.1 gr/dscf from general process units (i.e., units using a procedure or a combination of procedures for the purpose of causing a change in material by either chemical or physical means, excluding combustion).

The Puget Sound Clean Air Agency has determined that the monitoring should be monthly (during months that the facility operates), employing the same monitoring method at the same frequency as the opacity requirements in Requirement I.A.2. The monitoring method is based on the fact that particulate emissions less than 0.05 gr/dscf usually do not result in visible emissions.

3. Requirement I.A. 5 (PM₁₀ from combustion sources)

WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O₂ from all combustion units, including both internal and external combustion units. There are SIP approved, federally enforceable, and newer, non-SIP-approved, non-federally enforceable versions of WAC 173-400-050(1). The requirements are, for all practical intents and purposes, identical, with identical monitoring methods. Since Puget Sound Energy burns only pipeline grade natural gas and very clean distillate oil, it is incapable of violating this standard while complying with the other requirements in the permit. Therefore, the permit does not contain additional monitoring requirements other than facility-wide monitoring.

4. Requirement I.A. 6 (SO₂)

Both Puget Sound Clean Air Agency Regulation I, Section 9.07 and Ecology's WAC 173-400-040(6) are equivalent requirements (SO₂ emissions not to exceed 1000 ppmv), except for the second paragraph of the WAC, which is not in the Puget Sound Clean Air Agency regulation. That paragraph, which is not federally enforceable, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO₂ concentrations to 1000 ppm. Since the Puget Sound Clean Air Agency rules do not allow the exception, the second paragraph does not apply to Puget Sound Energy.

In the combustion units, Puget Sound Energy can only burn pipeline quality natural gas and distillate oil. "Natural gas" means a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the Washington Utilities and Transportation Commission. Natural gas may also be referred to as "pipeline quality natural gas." Puget Sound Energy receives the same natural gas as all of the other natural gas consumers, private and

industrial, in the Northwest. According to Section 1.4-3 of AP-42, natural gas contains approximately 2000 grains of sulfur per million cubic feet, which is equivalent to approximately 3.4 parts of sulfur per million cubic feet of natural gas, as shown in the following calculation:

$$\frac{2,000 \text{ gr } S}{1,000,000 \text{ ft}^3 \text{ nat. gas}} \times \frac{1 \text{ lb}}{7000 \text{ gr}} \times \frac{385 \frac{\text{ft}^3}{\text{mole } S}}{32 \frac{\text{lb}}{\text{mole } S}} = 3.44 \times 10^{-6} \frac{\text{ft}^3 S}{\text{ft}^3 \text{ nat. gas}} \equiv 3.44 \text{ ppmdv } S$$

According to *Perry's Chemical Engineer's Handbook*, each cubic foot of natural gas requires approximately 10 cubic feet of air for combustion, yielding approximately 11 cubic feet of combustion exhaust gases, consisting mostly of nitrogen, water vapor, and carbon dioxide. The sulfur in the natural gas will almost all be converted to sulfur dioxide, with each cubic foot of sulfur producing the same volume of sulfur dioxide. Since each cubic foot of natural gas contains 3.44×10^{-6} cubic foot of sulfur, each cubic foot of stack exhaust will contain approximately:

$$3.44 \times 10^{-6} \frac{\text{ft}^3 S}{\text{ft}^3 \text{ nat. gas}} \times \frac{1 \text{ ft}^3 \text{ SO}_2}{1 \text{ ft}^3 S} \times \frac{1 \text{ ft}^3 \text{ nat. gas}}{11 \text{ ft}^3 \text{ stack exhaust}} = 3.13 \times 10^{-7} \frac{\text{ft}^3 \text{ SO}_2}{\text{ft}^3 \text{ stack exhaust}}$$

This is equivalent to 0.31 ppmv SO₂. Note that this estimated value is less than one-tenth of one percent of the 1,000 ppm SO₂ standard. Therefore, it is reasonable to assume that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO₂ limits in Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040(6). The other emission units are not capable of generating SO₂ emissions as permitted. Therefore, the permit does not contain monitoring requirements.

In addition, the permit also limits fuel oil to a maximum sulfur content of 0.05% sulfur by weight. This results in emissions of SO₂ less than 25 ppm, 2.5% of the standard and requires monitoring of the sulfur content of the fuel. Because of the direct relationship between sulfur in the fuel and emissions, the permit only requires monitoring of the sulfur content of the fuel.

5. Requirement I.A. 7 (HCl)

Puget Sound Clean Air Agency Regulation I, Section 9.10 specifies that HCl emissions shall not exceed 100 ppm (dry), corrected to 7% O₂ for combustion sources, including both internal and external combustion units. Puget Sound Energy can only burn pipeline grade natural gas and diesel, and neither of these fuels can contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded. Therefore, following the O&M plan assures compliance with this requirement.

6. Requirements I.A.8 and 1.A. 9 (nuisance)

Puget Sound Clean Air Agency Regulation I, Section 9.11(a) and WAC 173-400-040(5) are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. WAC 173-400-040(5) has SIP-approved and non-SIP approved versions that are virtually identical. Puget Sound Clean Air Agency Regulation I, Section 9.11 has not been adopted into the SIP. The monitoring method for all these requirements is based

on responding to complaints and general inspections of the facility to identify any emissions that are likely to be injurious to human health, plant or animal life, or property, or that unreasonably interfere with enjoyment of life and property. Therefore, the Puget Sound Clean Air Agency has determined that complaint response requirements in Section II.A.1(b) and the quarterly facility-wide inspections required in Section II.A.1(c) of the permit are sufficient to monitor for changes that would cause a fugitive emission or unexpected buildup of dust on the roadways and plant grounds.

Puget Sound Clean Air Agency Regulation I, Section 9.11(b) (non-Federally enforceable) and the WAC 173-400-040(4) address odors. The monitoring method is based on responding to complaints, monthly inspections of the facility to identify emissions of odor-bearing contaminants and correcting any problems identified as a result of the inspection or investigation. Receiving complaints does not necessarily mean Puget Sound Energy is in violation of this requirement, since the regulation does not prohibit the emission of odors, but prohibits the emissions of odors if good practices are not employed to control emissions. Puget Sound Energy does not generally emit odors that would cause a complaint. Complaints will trigger action by Puget Sound Energy to investigate and correct problems that could result in a violation.

The Puget Sound Clean Air Agency has determined that the monitoring should be monthly (during months that the facility operates) for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*.

- (1) Initial compliance. The Puget Sound Clean Air Agency has received zero complaints regarding fugitive dust or odor emissions over the past five years, and has not observed visible or odorous emissions from plant activities during any inspection. Therefore, we conclude that it is generally in compliance with the nuisance requirements.
- (2) Margin of compliance. The monitoring method is designed so that the source will take corrective action before a violation of the underlying emission standard occurs.
- (3) Variability of process and emissions. With scheduled downtime and production fluctuations, emissions from Puget Sound Energy are intermittent but are relatively constant on a yearly basis.
- (4) Environmental impacts of problems. A maintenance problem is unlikely to result in emissions that would have a significant environmental impact.
- (5) Technical considerations. There are no storage piles to blow away in the wind. There are no processes that have a significant potential to generate fugitive particulate or gaseous or odor-bearing emissions.

7. Requirements I.A. 10, I.A. 11 (Fugitive emissions)

WAC 173-400-040(3) addresses fugitive dust emissions for some activities, and WAC 173-400-040(8) requires reasonable precautions or reasonably available control technology (RACT) to control fugitive emissions. Puget Sound Clean Air Agency Regulation I, Section 9.15 requires the use of reasonable precautions for fugitive dust and lists some examples of reasonable precautions. Monitoring, maintenance and recordkeeping methods II.A.1(b) (Complaint Response) and II.A.1(c) (Facility-wide Inspections) are sufficient to monitor for changes that would cause a fugitive emission or unexpected buildup of dust on the roadways and parking lots.

8. Requirement I.A.12 (maintain equipment)

Puget Sound Clean Air Agency Regulation I, Section 9.20 requires Puget Sound Energy to maintain equipment in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under Puget Sound Clean Air Agency Regulation I, Article 6. Section 9.20(b) applies to equipment not subject to Section 9.20(a). Section II.A of the permit identifies the minimum monitoring criteria for maintaining equipment in good working order. The section identifies both facility-wide criteria and specific criteria for the emission units and activities. The Puget Sound Clean Air Agency has determined that following the requirements of Section II of the permit provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, the Puget Sound Clean Air Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

9. Requirements I.A.13 and 14 (O&M plan)

In accordance with Puget Sound Clean Air Agency Regulation I, Section 7.09(b), Puget Sound Energy is required to develop and implement an O&M Plan to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III. The requirement specifies that the plan shall reflect good industrial practice, but does not define how to determine good industrial practice. To clarify the requirement, Puget Sound Clean Air Agency added that in most instances following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. This language is consistent with a Washington Department of Ecology requirement in WAC 173-400-101(4). The Puget Sound Clean Air Agency also added language establishing criteria for determining if good industrial practice is being used. These may include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The Puget Sound Clean Air Agency added this wording in response to Washington State court decision, *Longview Fibre Co. v. DOE*, 89, Wn. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct. Puget Sound Clean Air Agency Regulation I, Section 7.09(b) also requires Puget Sound Energy to promptly correct any defective equipment. However the underlying requirement in most instances does not define "promptly"; hence for significant emission units and applicable requirements that Puget Sound Energy has a reasonable possibility of violating or that a violation would cause an air quality problem, the Puget Sound Clean Air

Agency added clarification that “promptly” usually means within 24 hours. For many insignificant emission units and equipment not listed in the permit, the meaning of “promptly” will vary because the emission sources and suitable pollution control techniques vary widely, depending on the contaminant sources and the pollution control technology employed. However, the permit identifies a means by which to identify if Puget Sound Energy is following good industrial practice.

Puget Sound Energy must report to the Puget Sound Clean Air Agency any instances where it failed to promptly repair any defective equipment. Puget Sound Energy has the right to claim certain problems were a result of an emergency (Section V.S) or unavoidable (Section V.T).

Following these requirements demonstrates that Puget Sound Energy has properly implemented the O&M Plan, but it does not prohibit the Puget Sound Clean Air Agency or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

10.Requirement I.A.15

RCW 70.94.040 is similar to Puget Sound Clean Air Agency Regulation I, Section 9.11 and is listed separately here because it is not a federally enforceable requirement.

C. Emission Unit Specific Applicable Requirements

All generally applicable requirements apply to the specific emission units. The Puget Sound Clean Air Agency did not repeat the general requirements for each unit unless a specific monitoring requirement is applied to a general requirement.

Section I. B. 1 Emission Unit #1 (EU-1): Two GE 7101E 75 MW combustion turbines with water injection. These two simple-cycle combustion turbines were installed in 1981. They burn natural gas with distillate oil as “backup,” for times when natural gas is curtailed. The main pollutant of concern for the turbines is NO_x, which is controlled by water injection, which was considered to be best available control technology (BACT) for simple-cycle turbines in 1981.

Federal New Source Performance Standard Subpart GG applies to the turbines.

Because the turbines would have the potential to generate “significant” emissions as defined in 40 CFR 52.21, Puget Sound Energy had to apply for and obtain a Prevention of Significant Deterioration Permit prior to installation of the turbines. Because the PSD Program had not yet been delegated to the Washington Department of Ecology back in 1981, the PSD permit for the turbines was issued by EPA Region X.

The Puget Sound Clean Air Agency has issued several Orders of Approval for the facility over the years. The most recent Order of Approval was issued as a result of Puget Sound Energy operations during the winter 2001 “energy crisis.” Puget Sound Energy ran the turbines at maximum capacity during that time. They also turned the water injection up to maximum as well, in an effort to minimize emissions of NO_x. Despite this effort, increased operations of the turbines caused an exceedance of the NO_x limit of 580 tons per year.

Puget Sound Energy knew that this was going to happen, and they proposed to mitigate the exceedance by increasing water injection rates for all future operations. Puget Sound Energy soon found that the existing water injection system and existing nozzles required much more maintenance at the higher water injection rates, so they proposed to retrofit improved nozzles, and submitted a NOC application for this project. There was some concern on the part of Department of Ecology that the nozzle retrofit project might be subject to PSD, but upon final analysis, the project was determined to be a “pollution prevention project,” exempt from PSD. The project went forward as an “off-permit change,” as per WAC 173-401-724, and resulted in more stringent emission standards.

The monitoring method for all the above approvals is based on continuous monitoring of water-to-fuel ratio whenever the turbines operate. All the monitoring for the turbines is in Section II.A.2(b). The monitoring requirements are essentially the same as required in the federal New Source Performance Standard, with the additional requirement that Puget Sound Energy is required to retest the turbines every five years or 10,000 hours or more of operation. Testing is done to confirm compliance with the tighter NO_x and SO₂ emission standards, and to assure that the water injection-to-fuel combustion rate is sufficient to control NO_x emissions to required levels.

- (6) Initial compliance. Puget Sound Energy has not exceeded NO_x or SO₂ emission limits at any time other than during the winter 2001 “energy crisis,” when the turbines were run at continuously at maximum capacity. The monitoring system that was in place adequately measured the exceedance.
- (7) Margin of compliance. The monitoring method is designed so that the source will take corrective action before a violation of the underlying emission standard occurs. As stated previously, the “corrective action” resulting from the energy crisis was a whole new permit, with retrofitted, higher-capacity water injection nozzles, and permanent lower emission limits.
- (8) Variability of process and emissions. With scheduled downtime and production fluctuations, emissions from Puget Sound Energy are intermittent but are relatively constant on a yearly basis.
- (9) Environmental impacts of problems. A maintenance problem is unlikely to result in emissions that would have a significant environmental impact.
- (10) Technical considerations. NO_x emissions can be predicted using the monitoring method (continuous monitoring of fuel and water flow rates to each turbine).

D. Monitoring, Maintenance and Recordkeeping

Puget Sound Energy must follow the procedures contained in Section II of the permit, Monitoring, Maintenance and Recordkeeping Procedures. Failure to follow a requirement in Section II may not necessarily be a violation of the underlying applicable emission standard in Section I. However, not following a requirement of Section II is a violation of Section II and Puget Sound Energy must report such violations, as well as violations or deviations from any other permit condition, as a deviation under Section V.R.1 of the permit. In addition, all information collected as a result of implementing Section II can be

used as credible evidence under Section V.O.2. of the permit. Reporting a permit deviation and taking corrective action does not relieve Puget Sound Energy from its obligation to comply with the underlying applicable requirement.

A standard Puget Sound Clean Air Agency Notice of Construction Approval condition (NOC Condition No. 1) requires that the equipment, device or process be installed according to plans and specifications submitted to the Puget Sound Clean Air Agency. Once the equipment is installed, the Puget Sound Clean Air Agency requires certification by the applicant that the installation was as approved; this is usually done with a Notice of Completion. Normally within six months to a year after receiving a Notice of Completion, a Puget Sound Clean Air Agency inspector verifies by inspection that the equipment was installed as specified and in accordance with the Approval Order. While the Notice of Completion is a one-time requirement that Puget Sound Energy has complied with, Puget Sound Energy cannot change the approved equipment in such a manner that requires an NOC without first obtaining an NOC approval which is addressed in Section IV.A of the permit. In most cases, once Puget Sound Energy has filed the Notice of Completion and a Puget Sound Clean Air Agency inspector has verified that the equipment was installed according to the Approval Order, the Puget Sound Clean Air Agency considers NOC Condition No. 1 an obsolete condition. However, in some cases in the permit the Puget Sound Clean Air Agency has identified a need to specify that the equipment cannot be altered in such a manner that requires an NOC approval.

The permit requires Puget Sound Energy to conduct quarterly facility-wide inspections. These inspections are to include checking for prohibited activities under Section III of the permit and activities that require additional approval under Section IV of the permit, as well as checking for any “nuisance” odor bearing contaminants. The Puget Sound Clean Air Agency determined the frequency of these inspections after considering the potential for emissions, the lack of federally required monitoring, Puget Sound Energy in-house training practices and similar factors. If problems are identified, Puget Sound Energy has the responsibility to not only correct the specific problem, but also to adjust the work practices and training to prevent future problems.

In determining the appropriate monitoring frequencies for monitoring identified in Section II.A. of the permit, the Puget Sound Clean Air Agency considered “the five factors,” as described in VI.A.2.

E. Prohibited Activities

Some of the requirements Puget Sound Energy identified in the operating permit application are included in Section III as prohibited activities. The Puget Sound Clean Air Agency has listed these activities in this section to highlight that they cannot occur at the facility. Since these activities are prohibited, routine monitoring of parameters is not appropriate; however, the permit does require Puget Sound Energy to look for such activities during a routine facility-wide inspection.

Puget Sound Clean Air Agency Regulation I, Section 9.13 and WAC 173-400-040(7) contain similar requirements addressing concealment and masking of emissions. Although

both requirements apply, the permit language has been simplified by grouping these requirements together.

F. Activities Requiring Additional Approval

Some of the requirements Puget Sound Energy identified in the operating permit application are included in Section IV as activities that require additional approval. For new source review, the permit language has been simplified. Puget Sound Clean Air Agency's new source review program (Regulation I, Article 6) requires approval to construct, install, establish, or modify an air contaminant source. The federal NSPS requires sources to notify the Puget Sound Clean Air Agency and EPA of new sources subject to an NSPS and the modification or reconstruction of an existing source subject to an NSPS. All these requirements apply, but the language in these requirements has been incorporated into one section to simplify the permit language.

G. Standard Terms and Conditions

Some of the requirements Puget Sound Energy identified in the operating permit application are included in Section V, Standard Terms and Conditions. This provided an easier mechanism for describing requirements that are more general in nature. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

Section V.R.2 of the permit requires Puget Sound Energy to report deviations of the permit to the Puget Sound Clean Air Agency, normally within 30 days after the end of the month. Section V.R.1 of the permit requires that a responsible official certify all required reports at least once every six months. Puget Sound Energy may submit the certification with the report or certify all the reports submitted in the previous six months. For example, if Puget Sound Energy detected a deviation in January, it must report the deviation to the Puget Sound Clean Air Agency in February. A responsible official must certify the report according to WAC 173-401-520 at the time the report is submitted or any other time within six months of submitting the report.

If Puget Sound Energy does not detect any deviations to report for a six-month period, then Puget Sound Energy shall report that there were no deviations during the six-month period.

Puget Sound Energy determined that as of the date of permit issuance, it is not required to submit an accidental release plan under 40 CFR Part 68. However, Section V.X of the permit requires Puget Sound Energy to submit an accidental release plan if Puget Sound Energy starts storing substances above the threshold levels or if EPA lists new substances that Puget Sound Energy currently stores in amounts greater than the threshold levels.

VII. BASIS FOR INSIGNIFICANT EMISSION UNITS

Puget Sound Energy has requested that emissions from lube oil operations, space heater, the emissions from the facility operations and maintenance activities and the emissions from roadways be exempt emissions pursuant to WAC 173-401-530(1)(d). These emissions are fugitive in nature and are not subject to applicable requirements other than those listed in the permit.

Puget Sound Energy also has requested that the one MMBtu/hr natural gas space heater and water heaters be listed as insignificant emission units pursuant to WAC 173-401-530(1)(c) and WAC 173-401-533(2)(r). These heaters are rated at less than five MMBtu/hr and are fired exclusively on natural gas. Therefore, they are insignificant on the basis of their size.

Insignificant emission units and activities which are categorically exempt under WAC 173-401-530(1)(b) and WAC 173-401-532 are not required to be listed in the permit. Puget Sound Energy has identified these to be the following:

Unit	Basis for IEU Designation
Lubricating Oil Storage and Handling	WAC-173-401-532(3), (4) and (69)
Glycol Storage and Handling	WAC-173-401-532(4)
Waste Oil Storage and Handling	WAC-173-401-532(4)
Trucks, Fork Lifts, Autos, etc.	WAC 173-401-532(10)
Plant Upkeep/Painting	WAC 173-401-532(33)
Landscaping Activities	WAC 173-401-532(43)
Comfort Air Conditioning	WAC 173-401-532(46)
Natural Draft Hoods/Safety Valves	WAC 173-401-532(47)
Vents/Bathroom Facilities	WAC 173-401-532(48)
Office Activities	WAC 173-401-532(49)
Personal Care Activities	WAC 173-401-532(50)
Personal Cars	WAC 173-401-532(54)
Repair and Maintenance Activities	WAC 173-401-532(74)
Battery Banks	WAC 173-401-532(77)
Air Compressors	WAC 173-401-532(88)

Puget Sound Clean Air Agency Regulation I, Section 7.09(b) requires Puget Sound Energy to develop and implement an O&M Plan for its entire facility that includes sufficient monitoring and recordkeeping to assure continuous compliance with Regulations I, II and

III. This section and Regulation I, Section 9.20(b) also require Puget Sound Energy to promptly correct any defective equipment.

In order for Puget Sound Energy to certify compliance with these requirements, Section II.1. of the permit requires quarterly monitoring of the space heater, water heaters and generator for opacity and quarterly monitoring of the roadways and parking areas for visible fugitive dust emissions. Section V.O. of the permit requires records be kept of these inspections and repairs. However, Puget Sound Energy is not required to certify these (or any other) insignificant emission units and activities are in compliance with generally applicable requirements, such as the opacity and fugitive dust standards.

The Puget Sound Clean Air Agency has determined that monitoring of other insignificant emission units and activities is not necessary to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III.

The requirements listed in Section VIII of Puget Sound Energy’s air operating permit do not apply to the facility, or to the specific emissions units listed in the permit for the reasons listed below. The permit shield applies to all requirements so identified.

VIII. BASIS FOR INAPPLICABLE REQUIREMENTS

The requirements listed in Section VIII of Puget Sound Energy’s air operating permit do not apply to the facility, or to the specific emissions units listed in the permit for the reasons listed below. The permit shield applies to all requirements so identified.

What Puget Sound Energy applied for in their original application	Inapplicable?	What was determined by Puget Sound Clean Air Agency
Puget Sound Clean Air Agency Regulation I, Article 1.	✓	Regulation I, Article I does not meet the definition of an applicable requirement.
Puget Sound Clean Air Agency Regulation I, Article 3.		Much of Regulation I, Article 3 does not meet the definition of an applicable requirement. However, Section 3.07 is incorporated in Section V.N. of the permit. In addition, much of Regulation I, Article 3 deals with administrative issues such as Puget Sound Clean Air Agency orders, penalties and appeals. The Puget Sound Clean Air Agency cannot determine that these are inapplicable because the Puget Sound Clean Air Agency or Puget Sound Energy may want to exercise these sections.
Puget Sound Clean Air Agency Regulation I, Article 5.	✓	The Puget Sound Clean Air Agency agrees because the Washington Clean Air Act prohibits the Puget Sound Clean Air Agency from requiring operating permit sources to register.
Puget Sound Clean Air Agency Regulation I, Article 6.		The Puget Sound Clean Air Agency considers this an activity requiring additional approval and lists it in Section IV.D.
Puget Sound Clean Air Agency Regulation I, Article 8.		The Puget Sound Clean Air Agency considers this a prohibited activity and lists it in Section III.B of the permit.

What Puget Sound Energy applied for in their original application	Inapplicable?	What was determined by Puget Sound Clean Air Agency
Puget Sound Clean Air Agency Regulation I, Article 11.		The Puget Sound Clean Air Agency considers Section 11.01(b) a prohibited activity under Section III.F of the permit.
Puget Sound Clean Air Agency Regulation I, Article 12.	✓	The Puget Sound Clean Air Agency considers Article 12 inapplicable at this time.
Puget Sound Clean Air Agency Regulation I, Article 13.		Puget Sound Energy is not prohibited from installing a solid fuel burning device so the Puget Sound Clean Air Agency could not determine that it is inapplicable.
Puget Sound Clean Air Agency Regulation I, Section 9.05.		Puget Sound Clean Air Agency considers refuse burning a prohibited activity and listed it in Section III.C.
Puget Sound Clean Air Agency Regulation I, Section 9.08.		Puget Sound Energy must meet the fuel oil standards as required in Section I.B. of the permit.
Puget Sound Clean Air Agency Regulation I, Section 9.10.	✓ (9.10)(b) only	The Puget Sound Clean Air Agency has determined that the requirement of Section 9.10(a) for HCl is applicable and included it in Section I.A of the permit. Section 9.10(b) is listed as an inapplicable requirement in Section VIII of the permit.
Puget Sound Clean Air Agency Regulation I, Section 9.16.		The Puget Sound Clean Air Agency considers this an activity requiring additional approval and lists it in Section IV.D.
Puget Sound Clean Air Agency Regulation II, Articles 1, 2 and 3 were identified as inapplicable requirements in the application.	✓	The Puget Sound Clean Air Agency considers these to be inapplicable requirements because Since Puget Sound Energy does not have any equipment that is covered by the article.
Puget Sound Clean Air Agency Regulation III, Article 1.		The Puget Sound Clean Air Agency cannot conclude that the entire article is not applicable. Specifically, Section 1.11. Reporting Requirements is applicable to Puget Sound Energy.
Puget Sound Clean Air Agency Regulation III, Article 2.		The Puget Sound Clean Air Agency cannot conclude that the entire article is not applicable. Specifically, Sections 2.05 and 2.07 may apply.
Puget Sound Clean Air Agency Regulation III, Article 3.	✓	The Puget Sound Clean Air Agency agrees that this article is an inapplicable requirement because Puget Sound Energy does not have any of the listed equipment and must obtain Puget Sound Clean Air Agency approval before installing any such equipment.
WAC 173-400-040.		The Puget Sound Clean Air Agency cannot conclude that the entire article is not applicable and many of the requirements, including WAC 173-400-040(2), are incorporated into the permit.
WAC 173-400-060		This requirement applies to all sources, statewide.
WAC 173-400-070	✓	The Puget Sound Clean Air Agency agrees that this requirement does not apply because the listed source types are not present at the facility, and Puget Sound Energy will need to submit a Notice of Construction and Application for Approval to install any of them.

What Puget Sound Energy applied for in their original application	Inapplicable?	What was determined by Puget Sound Clean Air Agency
WAC 173-400-075		The Puget Sound Clean Air Agency disagrees because the Puget Sound Clean Air Agency cannot determine if Puget Sound Energy has any asbestos that would be subject to the requirement.
WAC 173-400-100 and Puget Sound Clean Air Agency Regulation I, Section 5.03	✓	The Puget Sound Clean Air Agency agrees that these requirements do not apply because RCW 70.94.161(17) exempts operating permit sources from registration. Operating permit sources are regulated under Puget Sound Clean Air Agency Regulation I, Section 7 and Chapter 173-401 WAC.
WAC 173-400-110		The Puget Sound Clean Air Agency has adopted WAC 173-400-110 under Regulation I, Section 6.01. Therefore, WAC 173-400-110 applies, indirectly, and Puget Sound Energy is not exempt from this requirement.
WAC 173-400-115		This does apply and is listed in the permit. Specifically, it adopts 40 CFR 60 subparts A and GG, which do apply to Puget Sound Energy.
WAC 173-400-120, 131, and 136	✓	The Puget Sound Clean Air Agency has determined that these requirements are inapplicable because they do not currently apply, and Puget Sound Energy would need approval from the Puget Sound Clean Air Agency before any of these requirements apply.
WAC 173-400-141		This requirement is not inapplicable, because a PSD permit may be required under Section IV.A. of the permit.
WAC 173-400-151	✓	This is an inapplicable requirement because Ecology has not identified Puget Sound Energy 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 173-400-161		No compliance schedules currently apply, but Puget Sound Energy may need one during the permit term.
WAC 173-400-171		This requirement may become applicable during the permit term for activities such as new source review.
WAC 173-400-190	✓	This is a requirement for Ecology to involve the Puget Sound Clean Air Agency, so it is inapplicable.
WAC 173-400-200		Puget Sound Energy may modify the facility to include a larger stack without a permit modification, hence the Puget Sound Clean Air Agency has determined that it is an applicable requirement.
WAC 173-400-205		This requirement is applicable because it is a prohibited activity under Section III.A. of the permit.
WAC 173-400-210	✓	This requirement deals with emission requirements of a prior jurisdiction, and is inapplicable because Puget Sound Energy Frederickson has always been in Puget Sound Clean Air Agency's jurisdiction.

What Puget Sound Energy applied for in their original application	Inapplicable?	What was determined by Puget Sound Clean Air Agency
WAC 173-400-220 through 260		The Puget Sound Clean Air Agency cannot conclude that all the sections are inapplicable because parts of WAC 173-400-230 may apply, and WAC 173-400-240 and -250 may apply during the permit term.
Chapter 173-425 WAC	✓	This is a prohibited activity under Section III.B.
Chapter 173-433 WAC		The AOP does not prohibit Puget Sound Energy from installing a solid fuel burning device or require Puget Sound Energy to notify the Puget Sound Clean Air Agency if it installed one; therefore, the Puget Sound Clean Air Agency cannot determine that this requirement is inapplicable.
Chapter 173-434 WAC	✓	This requirement does not apply because Puget Sound Energy 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 173-435 through 440 WAC		The application did not contain enough information determine nonapplicability. Specifically, Chapter 173-435 WAC may become applicable during the term of the permit.
Chapter 173-460 WAC.		This regulation is part of new source review under Section IV.A. of the permit, and is an applicable requirement..
Chapters 173-470, 173-474, 173-475, 173-480 and 173-481 WAC	✓	These are ambient air quality standards and by definition are not applicable requirements.
Chapter 173-490 WAC (except 040(2)(c))		The Puget Sound Clean Air Agency agrees that at this time Chapter 173-490 WAC is not applicable; however, it may become applicable if the ozone attainment status of the area changes. Therefore, the Puget Sound Clean Air Agency did not list the requirement as inapplicable. If it becomes applicable, the Puget Sound Clean Air Agency will follow the requirements to amend the permit.
40 CFR part 60 Subparts D, Da, Db, and Dc which regulate fossil fuel fired steam generators	✓	These are not applicable since Puget Sound Energy has simple cycle combustion turbine electrical generators which do not generate steam. If Puget Sound Energy proposed to install equipment subject to 40 CFR 60 Subparts D, Da, Db or Dc, Puget Sound Energy would also have to apply for a permit modification.
40 CFR 60 Subparts K, Ka and Kb, for storage vessels for petroleum liquids, and Puget Sound Clean Air Agency Regulation II, Section 2.04	✓	Subparts K and Ka 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.

What Puget Sound Energy applied for in their original application	Inapplicable?	What was determined by Puget Sound Clean Air Agency
40 CFR Part 75 - acid rain program	✓	Simple cycle combustion turbines which commenced operation before November 15, 1990 are exempt from the acid rain provisions (40 CFR 75.6(b)(1)). Therefore, the requirements of the acid rain program are not applicable to the Puget Sound Energy Generating Station. If the facility is modified in such a way that it becomes subject to the acid rain program, Puget Sound Energy will apply for a permit modification.
Chemical accident prevention provisions of Title III of the Federal Clean Air Act (40 CFR Part 68)		The Puget Sound Clean Air Agency cannot make such a determination. Specifically, Section V.X. of this permit requires Puget Sound Energy to make a determination of rule applicability and program eligibility and certify compliance or exemption by June 20, 1999.
40 CFR Part 63	✓	Proposed or promulgated MACT standards, 40 CFR Part 63, are not applicable to the equipment or operations of Puget Sound Energy at the time of permit issuance because the facility is not major for hazardous air pollutants. The Puget Sound Clean Air Agency will modify the permit if one becomes effective during the permit term.
Transportation Demand Management (TDM) plan, as required by RCW 70.94.531	✓	The Puget Sound Clean Air Agency has determined that a TDM plan does not meet the definition of applicable requirement because it does not apply to stationary sources.

IX. EXPLANATION OF CHANGES MADE DURING MODIFICATIONS TO THE AIR OPERATING PERMIT DURING THE COURSE OF PERMIT RENEWAL

On February 10, 2004 Puget Sound Energy submitted a Title V renewal application for the Puget Sound Energy Frederickson facility. The application consisted of a cover letter and critical items required under WAC 173-401-710, such as a compliance plan and certification by the responsible official. On September 16, 2005 the Puget Sound Clean Air Agency sent a letter to Puget Sound Energy indicating that the renewal application had been found to be complete.

The format of the AOP was changed to the latest Agency form, and numerous regulatory references throughout the AOP were updated due to rule changes since the last time the permit was open. Changes involving decisions by the Agency, or that were otherwise substantive, are described below:

A. Changes throughout Section I (tables of requirements)

- The tables in Section I have been changed. Previously, facility-wide requirements and requirements for each emission unit were expressed in two tables each. The first table contained requirements that were in the State Implementation Plan (SIP) and were therefore “federally enforceable,” immediately followed by a second table with the requirements that were “*STATE ONLY*.” Also, there was a rather lengthy notation below each of the old, federally enforceable requirements stating that the requirement would be superseded by the new requirement, once that new requirement was adopted into the SIP. The new table style consolidates the two-table system into a single table for facility wide requirements and for each emission unit requirements. The notations below each of the “dual” requirements have been replaced with a single explanation of the SIP and *STATE ONLY* adoption process and the display conventions used in all the tables. This one-time explanation is contained in the paragraph between the Section I heading and the requirements tables. The *STATE ONLY* requirements are shown with their federally enforceable counterparts, with the dates *italicized*, as shown below:

<u>Reqmt No.</u>	Enforceable Requirement	Adoption or Effective Date	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method
General				
I.A.1	WAC 173-400-040 WAC 173-400-040 (<i>STATE ONLY</i>)	<i>9/23/93</i> <i>2/10/05</i>	All emission units are required to use RACT.	No monitoring required
Opacity Standards				
I.A.2	Puget Sound Clean Air Agency Reg I: 9.03 (except for 9.03(e)) Puget Sound Clean Air Agency Reg. I: 9.03 (<i>STATE ONLY</i>) WAC 173-400-040(1) WAC 173-400-040(1) (<i>STATE ONLY</i>)	<i>3/11/99</i> <i>3/25/04</i> <i>9/23/93</i> <i>2/10/05</i>	Puget Sound Energy shall not emit any air pollutants which exhibit greater than 20% opacity for a period or periods aggregating more than 3 minutes in any hour	II.A.1(a) Opacity Monitoring

B. Changes in Facility-wide applicable requirements

- I.A.1** The generic requirement from the very beginning of WAC 173-400-040 was inserted here. This requirement states that all emissions units are required to use, at a minimum, reasonably available control technology (RACT). Also, if two emissions units emit into a single stack, and we can’t tell which pollutants are coming from which source, the most restrictive requirements that would apply to the individual emissions units apply to the common stack. The paraphrase of the requirement (column 4 in the table) only discusses the RACT requirement, but the entire requirement applies.

I.A.4 and I.A.5 Puget Sound Energy wanted requirements I.A.4 (WAC 173-400-060) and I.A.5 (WAC 173-400-050(1)) deleted or moved, but the Puget Sound Clean Air Agency determined that those conditions should stay. This is because they apply statewide, throughout all of Puget Sound Clean Air Agency jurisdiction, and therefore throughout the entire Puget Sound Energy facility. These requirements had been previously listed as exempt, but the earlier determination has been overridden. Periodic opacity monitoring (Section II.A.(1)(a) and There is no practical difference in monitoring procedures.

I.A.14 RCW 70.94.152(7) has been moved from EU-1.32 to I.A.14 because this requirement applies throughout the facility.

C. Changes to Emission Unit #1 (EU-1): Two GE 7101E 75 MW combustion turbines with water injection

EU-1.1 This requirement used to contain NOC Order of Approval 6860, Condition No. 4. This condition has been moved to Section II.A.2(b), because it is actually a monitoring requirement. EU-1.1 now contains NOC 6860, Condition 5.

EU-1.2 NO_x and SO₂ emission limits that had been in the original EU-1.6, 1.7, 1.8, and 1.9 were merged with NOC No. 6860 Condition 6. The limits are virtually identical.

EU-1.2 and 1.3 Compliance Assurance Monitoring requirements in Section II.C. have been added to the monitoring, maintenance and recordkeeping requirements.

D. "New" Emission Unit #1 (EU-2): Two Monsanto Brink Fiber Bed Model Chase 56X108es60-E Demisters

NOC No. 6461 has been incorporated into the air operating permit. EU-2.1, 2.2, and 2.3 contain emission standards, and monitoring conditions for these requirements were put in Section II.A.2(c).

E. Changes to Section II

An effort was made to insert the appropriate rule reference at the end of each paragraph of Section II (see example at the end of this paragraph). The example shown here refers to the operating permit rule that requires the permitting authority to impose a "gap-filling requirement" when the underlying requirement does not contain a monitoring method.

[WAC 173-401-615(1)(b), 10/17/02]

Section II.A.1(a) The requirement that Puget Sound Energy inspect facility-wide for opacity was changed from monthly to monthly "during months that the facility operates." This change was made because there are months during which the facility does not operate.

Section II.A.2 This section was overhauled. Some requirements that used to be in the EU-1 table were moved to Section II.A.2 because they are really monitoring requirements.

Subsection II.A.2(a) was modified by removing NSPS fuel requirements and inserting Agency-specific fuel requirements (no used oil, 0.05% sulfur maximum, and recordkeeping of all fuel deliveries).

Section II.A.2(b) was broken into two parts: Section II.A.2(b)(i), which contains Agency-specific requirements, and Section II.A.2(b)(ii), which contains slightly modified copies of the applicable portions of Subparts A and GG of the federal NSPS.

Section II.A.2(c) contains monitoring conditions for EU-2, the demister.

Section II.C. New section on Compliance Assurance Monitoring (CAM) has been inserted.

F. Changes to Section III

A new Section prohibiting circumvention was inserted.

G. Changes to Section IV

Section IV.A This section was broken out into two subsections, one dealing with minor new source review, and another dealing with federal New Source Performance Standards.

Section IV.D This section, which describes Puget Sound Clean Air Agency Regulation I, Section 9.16 was renumbered so match the numbering used in the regulation.

H. Changes to Section V

Section V.M.5 A sentence requiring compliance certification by the responsible official was added. The following sentence was also added, "Submittal of a Puget Sound Clean Air Agency "OPERATING PERMIT – ANNUAL CERTIFICATION FORM," completed in accordance with the instructions on the form, fulfills the requirements of this subsection." This paragraph was inserted because no environmental benefit is gained by making the source submit annual compliance certifications in "long form," in addition to the annual form.

Section V.N. This section was renamed from Compliance determination to Emission testing. The source testing requirements in Section V.N.1 are unchanged from before; only the headers have been changed. A new section, V.N.2, has been added for NSPS source testing requirements. The section in V.N. on credible evidence has been moved to Section V.O.

Section V.O. This section on compliance determination was inserted after Section V.N. It now has two subsections, V.O.1 on credible evidence and V.O.2 on compliance with New Source Performance Standards.

Section V.P. This section on recordkeeping was used to be Section V.O. The section is unchanged from before, other than paragraph (3) which requires maintenance of CAM records.

Section V.Q: The data recovery requirement is now much shorter, but we now expect data recovery to be 100%.

Section V.R: This section has been overhauled. An effort has been made to make the reporting subsection more understandable without losing the legal requirements. Reporting requirements are not changed from those in the original AOP; it's just that those requirements are spelled out more clearly now.

Section V.Z: This section has been revised to include new wording to accommodate the changes in WAC 173-401-530(2) with regard to monitoring of insignificant emissions units. Inclusion of this new wording, which was developed after several meetings with EPA Region X, is mandatory.

X. PUBLIC COMMENTS AND RESPONSES

A. Original comment period

A 30-day public comment period started on April 22, 1999.

No public responses were received during the comment period.

U.S. Environmental Protection Agency Region 10 sent a letter May 24, 1999 stating, “EPA is disinvesting in the review process for the draft Puget Sound Energy, Inc. (Frederickson) Air Operating Permit.”

B. Comment period for first renewal

1. Comment from USDA Forest Service

The first comment was received via a series of e-mails and an attached letter from Rick Graw, Air Resource Management Specialist, USDA Forest Service. The letter is attached below:

December 14, 2006

Steve Van Slyke
Puget Sound Clean Air Agency
110 Unions Street – Suite 500
Seattle, WA 98101

Re: **Puget Sound Energy – Frederickson Generating Facility**

The USDA Forest Service is concerned about air quality impacts from Puget Sound Energy (Frederickson Electric Generating Station) on nearby Federal Class I areas. Specifically, the Forest Service is concerned about the potential for this facility to cause or contribute to adverse impacts on visibility. The basis for this concern arises from a review of their existing permit limits, a review of their compliance history, and a cumulative visibility impact analysis performed in 2002. As a result, the Forest Service is requesting that a Class I area impact analysis be performed for nearby Class I areas, including Alpine Lakes Wilderness and Mount Rainier National Park. The nearest distance to Mount Rainier National Park is approximately 36 km, and the nearest distance to Alpine Lakes Wilderness is approximately 70 km.

The emission limits are identified in the draft renewed operating permit for the facility. Table 1 below identifies the applicable requirements.

Table 1. Emission Limits

Requirement No.	Enforceable Requirement	Requirement Paraphrase
EU-1.2	Order of Approval No. 6860 Condition No. 6 PSD X80-17	Puget Sound Energy shall not exceed the emission rates for: (a) NO _x = 388 lb/hr per turbine and 580 ton/year total for the two turbines; and (b) SO ₂ = 480 lb/hr per turbine and 720 ton/year total for two turbines.
EU-1.3	Order of Approval No. 8436 Condition 5	Emissions of NO _x from Puget Sound Energy shall not exceed: (a) 144 lb/hr from any combustion turbine exhaust stack when fired on natural gas; (b) 246 lb/hr from any combustion turbine exhaust stack when fired on distillate oil; and (c) 530 tons per year from the entire facility.

The Statement of Basis prepared by PSCAA documents the historic emissions and compliance history of this facility. Table 1 of that report identifies that the facility exceeded the 580 tpy NO_x limit on several occasions in 2000 and once in 2001. Table 2 of that report identifies the historic emissions from this facility from 2001 through 2004. In 2001, the facility emitted 614 tpy of NO_x. However, in 2002 through 2004, the facility had substantially reduced emissions (less than 12 tpy of NO_x). The most recent, visibility assessment for this facility was documented in a report dated June 14, 2002, prepared as part of the Frederickson 2 Power Project. The report provides a visibility analysis of cumulative impacts from several power projects in the Frederickson-Sumner area including the existing Frederickson Generating Facility (a.k.a Puget Sound Energy), PG&E Frederickson, Calpine Tahoma, PG&E Sumner, Northwest Electrical Generating, and Frederickson 2. The total visibility-related pollutant emissions are summarized in Table 2.

Table 2. Permitted and Modeled Emission Rates

Facility	Pollutant	Maximum Permitted Emission Rate (lbs/hr)	Modeled Emission Rate (lbs/hr)
Frederickson 1 (Puget Sound Energy)	NO _x	388	22.54
	SO ₂	480	12.42
	PM10	-	19.05
Frederickson 2	NO _x	-	20.14
	SO ₂	-	18.3
	PM10	-	26.43
All Modeled Facilities	NO _x	-	183.65
	SO ₂	-	81.21
	PM10	-	200.98

Two aspects of the modeled emission inventory are of interest. First, the total emissions from all modeled facilities are less than the maximum permitted emission rates in the Puget Sound Energy operating permit. Second, emissions from Puget Sound Energy were modeled at substantially lower rates than the permitted emission rates. The basis for the modeled emission rates from Puget Sound Energy is not identified in the report.

The USDA Forest Service is typically concerned when model-predicted impacts on visibility will cause or contribute to a noticeable change as compared to natural conditions. A noticeable change in light

extinction is interpreted as a change of 10% or more in light extinction. Under such circumstances, a source contributing more than 0.4% of these impacts is considered a contributing source. Additionally, if the source contribution to extinction is greater than 5%, a cumulative impact analysis is warranted.

The 2002 cumulative impact analysis performed for Frederickson 2 Power Project revealed that model-predicted results from all sources would result in a noticeable change in visibility four days a year at Mount Rainier National Park and three days a year at Alpine Lakes Wilderness. Given that the permitted emission rates at Puget Sound Energy are greater than the total modeled emissions, one would expect even greater light extinction than that presented.

Additionally, the model-predicted results, in the existing analysis, are based on meteorological data that is not of sufficient length such that “worst-case” conditions are appropriately characterized. The US EPA provides guidance on what it considers as sufficient length in order that worst case conditions are likely captured (US EPA Guidelines on Air Quality Modeling, 40 CFR 51, Appendix W). Paragraph (d) of section 8.3.1.2 of that document states “*Less than five, but at least three, years of meteorological data (need not be consecutive) may be used if mesoscale meteorological fields are available*”. The existing analysis was performed using slightly less than one year of mesoscale meteorological data (April 1, 1998 through March 15, 1999). The Forest Service recognizes that this was the only readily available mesoscale meteorological data at the time for use in regulatory dispersion modeling, and as such, it was used commonly in PSD permit applications in the Pacific Northwest.

Recently, however, a three year (2003 – 2005) mesoscale meteorological data set was produced for the region, in an effort funded by the Idaho DEQ, Oregon DEQ, and Washington DOE. The data was generated using the MM5 meteorological model run at both 4 km and 12 km horizontal grid resolution. That data set is believed to be of better quality, resolution, and length than used in the 2002 analysis, and could make a substantial difference in model-predicted impacts from the proposed facility.

Given the above information, the USDA Forest Service is requesting an analysis of Class I area impacts for Puget Sound Energy. The analysis should follow US EPA and FLAG Phase I modeling guidelines. The analysis should include an assessment of PSD increment consumption, visibility, and nitrogen and sulfur deposition. Based upon the results of this analysis, further comments may be warranted.

This matter has already been discussed with Alan Butler of your staff and Clint Bowman, Air Quality Modeler with Washington Department of Ecology. Your attention to this matter is greatly appreciated.

Rick Graw
Air Resource Management Specialist
USDA Forest Service
Pacific Northwest Region

Puget Sound Clean Air Agency Response:

This comment was not directed to the air operating permit. Therefore, no changes to the air operating permit were considered as a result of the USDA Forest Service comments.

2. Comment from Puget Sound Energy

Puget Sound Energy commented on the draft air operating permit, in the form of a letter, dated January 12, 2007, from Ben Farrow, Program Manager of CT Compliance.

1. Site Contact. Please change the Site Contact to:

Evan Sorrell, O&M Supervisor
P.O. Box 97034
Bellevue, WA 98004

Telephone: (425) 456-2129
Cell: (206) 396-5950

Puget Sound Clean Air Agency Response:

Change made.

2. AOP Section II.A.2.(b)(i), third paragraph. Please change the paragraph as indicated below.

“Puget Sound Energy shall record data required in 40 CFR 60.334(a), including the date, time, fuel consumption rate (lb/sec), actual water injection rate (lb/sec), , ambient temperature, and corresponding actual and required water-to-fuel ratios. Puget Sound Energy shall take the above readings at least once per minute of operation, and shall compute 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. Puget Sound Energy shall compute annual averages on a monthly basis.”

Because the required water injection rate is derived from the required water-to-fuel ratios, monitoring of this parameter does not provide additional information on turbine operation or compliance with the emission standard. Further, operational practice is based on checks of the required and actual water-to-fuel ratios, which are the direct control system outputs. Monitoring of the required and actual water-to-fuel provides adequate assurance of compliance.

Puget Sound Clean Air Agency Response:

Change made for reason given above.

3. AOP Section II.A.2.(b)(ii), Monitoring of Operations. This section should include all portions of 40 CFR 60.334(g). Please revise Section II.A.2.(b)(ii), Monitoring of Operations (a) as follows:

Puget Sound Energy shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbines. This system shall be accurate to within ± 5.0 percent. Permit Section II.A.2.(b)(i) and the existing compliance curves for water-to-fuel injection ratios constitute the existing parameter monitoring plan. Any changes to these ratios or the parameters monitored shall include clear written documentation of the new parameters monitored, the acceptable ranges and the basis for designating the parameters and ranges, as well any supplemental data supporting the new monitoring plan..

Puget Sound Clean Air Agency Response:

Change made to reflect updated NSPS.

4. AOP Section II.A.2.(b)(ii), Test Methods and Procedures, paragraph (c)(3). What is the basis for the span values required here? These are not included in the specified regulations.

Puget Sound Clean Air Agency Response:

The span values came from a version of 40 CFR 60.335(c)(3) that was published prior to the commencement of construction of the Puget Sound Energy Frederickson facility. The

newer version of 40 CFR 60.335 does not specify span values for NO_x and O₂. The mandatory span values have been removed.

5. PSD X80-17, Condition 3 has not clearly been captured in the permit. It would be appropriate to include the notification requirement in Section II.A.2.(b)(i).

Puget Sound Clean Air Agency Response:

The sentence, “Puget Sound Energy shall notify the Puget Sound Clean Air Agency of any occurrence of any emissions in excess of the limits specified in EU-1.1 or EU-1.2, in writing, no later than ten days after each occurrence.” has been inserted in the reporting paragraph V.R.1.

6. AOP Section II.A.2.(b)(ii), Monitoring of Operations, Paragraph (b) and Section II.A.2.(b)(ii), Test Methods and Procedures, Paragraph (d). It should be noted that Puget Sound Energy has an existing custom monitoring plan for sulfur in natural gas approved by EPA in 2001, which consisted of semi-annual monitoring by the pipeline operator. Please note these requirements in these sections. Further, the sulfur analysis methods listed in this section are different than those in the New Source Performance Standards in 40 CFR 60.334(h) and 40 CFR 60.335(b)(4). Please incorporate the analyses specified in the New Source Performance Standards, including those in 40 CFR 60.334(h), 40 CFR 60.335(b)(4) and 40 CFR 60.17.

Puget Sound Clean Air Agency Response:

Changes made.

7. AOP Section II.A.2.(b)(i). This section defines monitoring requirements sufficient to ensure compliance with the appropriate standard. It should be noted that 40 CFR 60.334(j)(1)(ii)(a) defines excess emissions to include any unit operating hour in which no water or steam is injected into the turbine.

During operation of combustion turbines during startup, shutdown, without load (“Full Speed No Load” or “FSNL”) or at very low loads, water or steam is typically not injected into combustion turbines in order to maintain steady operation. During startup and shutdown or very low load operations, water or steam injection can prevent proper combustion of fuel or even initial ignition. When water or steam injection is configured and tested to ensure compliance with emission limits, the lower end of the range of injection is determined by the mass-based emission limit and ability to operate steadily.

When the water and fuel injection nozzles were upgraded on the Frederickson Units under Order of Approval 8436, the water injection curves were set with these factors in mind and compliance with emission limits demonstrated by testing after installation of the new nozzles. Because of the definition of excess emissions in 40 CFR 60.334(j)(1)(ii)(a) all periods during which water isn’t injected into the turbines, including startup and shutdown, must be considered excess emissions and reported as such, even though they are not truly an exceedence of the emission standard. To incorporate this definition, we propose the following changes:

Section II.A.2.(b)(ii). Monitoring of Operations, paragraph (c).

“Nitrogen oxides. Any one-hour period 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 with 40 CFR 60.332 by the performance test required in 40 CFR 60.8, any hour during which no water is injected into the turbine, or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. 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).”

Section V.R.1.

“Puget Sound Energy shall report in writing to Puget Sound Clean Air Agency Operating Permit Certification any and all instances of deviations from the permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of the deviations, and any corrective actions or preventive measures taken. Deviation means any situation in which an emission unit fails to meet a permit term or condition. Deviations do not include periods of excess emissions by definition during operating conditions during which water injection is not required in order to maintain compliance with the required water-to-fuel ratios, as discussed in Section II.A.2(b)(ii). For each CAM excursion recorded under Section II.C of the permit the report shall include the information described in Condition II.C.8 of the permit, including any required information on implementation of a QIP. Puget Sound Energy shall maintain a contemporaneous record of all deviations. Puget Sound Energy shall report any deviations to the Puget Sound Clean Air Agency that represent a potential threat to human health or safety by FAX (206-343-7522) or via email as soon as possible but no later than 12 hours after such a deviation is discovered. Puget Sound Energy shall report other deviations in writing to Puget Sound Clean Air Agency Operating Permit Certification no later than 30 days after the end of the month during which the deviation is discovered. Excess emissions by definition should be reported with the semi-annual monitoring report.”

Puget Sound Clean Air Agency Response:

Subsection II.A.2(b)(ii)(c) was expanded to not require reporting of exceedances when the excess emission occurs during periods of startup, shutdown and malfunction. A new subsection, V.R.5, was added to require reporting of NSPS exceedances in accordance with 40 CFR 60.7(c). “...or via e-mail...” was added to Section V.R.1. “Periods of operation during which water injection is not required in order to maintain compliance, based upon water injection curves developed in accordance with NOC Order of Approval No. 9436, shall not be reported as deviations, even though these periods are defined as periods of excess emissions under 40 CFR 60.334(j)(1)(ii)(a)” was added to Section V.R.1.

8. AOP Section I.B.1, EU-1.10. The existing paraphrasing does not encompass the requirement. We propose to change the requirement to match the regulation. Proposed language is:

“Puget Sound Energy 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 this 40 CFR 60.7(f) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

Section V.P of this permit requires that records be maintained for five years.”

Puget Sound Clean Air Agency Response:

The wording requested above was inserted into a new paragraph (6) in Section V.P.

9. AOP Section II.A.2.(c). It appears that the intent of this section is to monitor the demisters at a similar frequency to the rest of the facility. We propose the following change to better align this monitoring:

“Puget Sound Energy shall perform inspections during operations, as described below, of the Brinks demisters at least once each month that the facility operates..”

Puget Sound Clean Air Agency Response:

Change made.

10. AOP Section II.C.3. This section imposes additional requirements beyond the cited rules that do not provide additional protection above the cited rules. The control system and operational practices at the facility will show operators if there is a suspected inaccuracy of any monitoring equipment. Following the manufacturer’s recommendations for calibration is sufficient to ensure accurate equipment. We propose the following change:

“Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer’s specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately, and shall be accurate to within \pm 5%.”

Puget Sound Clean Air Agency Response:

Change made.

11. AOP Section V.N.1(c). This section specifies 21 days advance notice for emissions testing. We propose to increase this notification timeframe to 30 days to provide consistency with the requirement for 30 day notification prior to NSPS emission testing, as outlined in Section V.N.2(d).

Puget Sound Clean Air Agency Response:

Change not made. The periodic testing requirement in the AOP is a “gap-filling” requirement (imposed in accordance with WAC 173-401-615(1)(b)) for demonstrating compliance with conditions in NOC Orders of Approval 6860 and 8436, both issued by the Puget Sound Clean Air Agency. Compliance testing done for compliance with state or local requirements, including these Orders of Approval, must be done in accordance with Puget Sound Clean Air Agency Regulation I, Section 3.07. Paragraph (b) of Puget Sound Clean Air Agency Regulation I, Section 3.07 requires a written notification at least 21 days prior to any compliance test. Puget Sound Energy can notify the Agency by further in advance of the anticipated test date if they wish.

12. Section VIII. The process by which regulations were determined to be applicable or inapplicable is not always clear. For example, WAC 173-490 was noted as not applicable at this time but was determined to be applicable, while 40 CFR 61 was noted as not applicable at this time but was determined inapplicable. Where regulations are not currently applicable, they should be found inapplicable and the permit modified should the situation change and the regulation become applicable. Please make these changes

In addition, we believe that the following regulations are not applicable, and should be listed as such in the permit. Please add them as inapplicable requirements.

- 40 CFR 61. Frederickson Generating Station is not a source for any of these pollutants.
- 40 CFR 60, Subpart KKKK. Frederickson Generating Station was constructed before February 18, 2005.
- WAC 173-406. The Acid Rain Program does not apply to the Frederickson Generating Station.
- 40 CFR 72-75. The Acid Rain Program does not apply to the Frederickson Generating Station.
- 40 CFR 60 Subpart Kb. This was noted as inapplicable in the detailed explanation, but not in the table.

Puget Sound Clean Air Agency Response:

Changes made.

XI. ADMINISTRATIVE AMENDMENT 1 TO OPERATING PERMIT (2/18/09)

Puget Sound Energy, Frederickson requested an Administrative Amendment (received November 17, 2008) to the operating permit to change the Responsible Official to L.E. Odom. The Operating Permit was updated.

XII. ADMINISTRATIVE AMENDMENT 2 (4/4/11)

Puget Sound Energy, Frederickson requested an Administrative Amendment (received March 25, 2011) to the operating permit to change the Responsible Official to Wayne Gould. The Operating Permit was updated.