pscleanair.org
Puget Sound Clean Air Agency

# AIR OPERATING PERMIT

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

Issued in accordance with the provisions of Puget Sound Clean Air Agency (previously known as Puget Sound Air Pollution Control Agency (PSAPCA)) 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, University of Washington is authorized to operate subject to the terms and conditions in this permit.

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| **PERMIT NO.: 21320** | **DATE OF ISSUANCE:** November 27, 2001<br>Administrative Amendment: February 6, 2008<br>Administrative Amendment: July 24, 2018<br>Administrative Amendment: May 6, 2019<br>Administrative Amendment: August 11, 2021 |
| **ISSUED TO: University of Washington Seattle Campus** | |
| **PERMIT EXPIRATION DATE:** November 27, 2006 | |

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Puget Sound Clean Air Agency Approval:

for Brian Renninger, P.E.
Permit Engineer

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## Tables

# I. EMISSION LIMITS AND PERFORMANCE STANDARDS

The following tables list the citation for the "applicable requirement" in the second column. The third column (Date) contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable Requirement and the State Only Requirement are different because only rules approved by EPA through Sections 110, 111, and 112 of the federal Clean Air Act are federally enforceable, and either the state has not submitted the regulation to the EPA or the EPA has not approved it. State only requirements are identified by a brief explanatory phrase, always including the *"STATE ONLY"* descriptor in the second column and by italicized adoption date in the third column.

The first column is used as an identifier for the requirement, and 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 requirements and adoption dates of those requirements are respectively identified 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 an enforceable requirement of this 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 a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added.

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.

## A. CAMPUS-WIDE EMISSIONS LIMITS

The requirements in this section apply campus-wide to all the emission units regulated by this permit except that monitoring methods specified elsewhere in the permit for specific applicable requirements for specific emission units or activities supersede the general monitoring requirements listed in Section I.A.

**Table 1 Campus-wide Applicable Requirements**

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.1 | WAC 173-400-040 | 8/20/1993 | When two or more emissions units are connected to a common stack and the operator elects not to provide the means or facilities to sample emissions from the individual units, and the relative contributions of the individual emission units to the common discharge are not readily distinguishable, then the emissions of the common stack must meet the most restrictive standard of any of the connected emissions units. All emission units are required to use RACT. | N/A | N/A | N/A |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.2 | Puget Sound Clean Air Agency Reg I: 9.03 *This requirement will be superseded upon adoption of the 3/11/99 version of Reg I: 9.03 into the SIP*<br>WAC 173-400-040(1)<br>*Puget Sound Clean Air Agency Reg. I: 9.03 (STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 9/08/94 version of Reg I: 9.03* | 9/08/1994<br>8/20/1993<br>*3/11/1999* | Shall not emit air contaminants in excess of 20% opacity for more than 3 minutes per hour | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | More than 3 min. in any 1 hr | Ecology Method 9A (See Section IX) |
| IA.3 | Puget Sound Clean Air Agency Reg I: 9.07<br>WAC 173-400-040(6) first paragraph only | 4/14/1994<br>8/20/1993 | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment | N/A | 1-hr tests | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.4 | Puget Sound Clean Air Agency Reg I: 9.09(a) *This requirement will be superseded upon adoption of the 4/9/98 version of Reg I: 9.09 into the SIP*<br><br>Puget Sound Clean Air Agency Reg I: 9.09 *(STATE ONLY) This requirement will become federally enforceable and will be effective in this table upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP* | 2/10/1994<br><br>*4/09/1998* | Equipment used in a manufacturing process shall not emit particulate matter in excess of 0.05 gr/dscf | II.A.1(a) Opacity monitoring<br><br>II.A.1(c) Campus-wide inspections | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.5 | Puget Sound Clean Air Agency Reg I: 9.11(a) *This requirement will be superseded upon adoption of the 3/11/99 version of Reg I: 9.11(a) into the SIP*<br><br>WAC 173-400-040(5)<br><br>Puget Sound Clean Air Agency Reg I: 9.11(a) *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 6/9/1983 version of Reg I: 9.11(a).* | 6/9/1983<br><br>8/20/1993<br><br>*3/11/1999* | Shall not emit air contaminants 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 | II.A.1(b) Complaint response<br><br>II.A.1(c) Campus-wide inspections | N/A | N/A |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.6 | Puget Sound Clean Air Agency Reg I: 9.15<br>*This requirement will be superseded upon adoption of the 3/11/1999 version of Reg I: 9.15 into the SIP* | 8/10/1989 | (a) Shall not emit visible dust unless BACT is employed to control the emissions<br>(b) Unlawful to operate a vehicle on paved public roads unless:<br>(1) The vehicle is constructed or loaded to prevent load from escaping or spilling;<br>(2) The vehicle is covered to prevent load from escaping or spilling if loaded with gravel or dirt; and<br>(3) Mud, dirt, and other debris is cleaned from the chassis and tires of the vehicle.<br>(c) Unlawful to allow emission of fugitive dust from any refuse or fuel burning, manufacturing, or emissions control equipment<br>(d) Unlawful to allow emission of fugitive dust in such quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or which unreasonably interferes with enjoyment of life and property | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.7 | Puget Sound Clean Air Agency Reg I: 9.15(a) *(STATE ONLY) This requirement shall become federally enforceable upon adoption of the 3/11/1999 version of Reg I: 9.15 into the SIP* | *3/11/1999* | It shall be unlawful for any person to 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 | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |
| IA.8 | WAC 173-400-040(3)<br>WAC 173-400-040(8) | 8/20/1993<br>8/20/1993 | Shall not emit visible dust unless reasonable precautions are employed to minimize the emissions | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.9 | Puget Sound Clean Air Agency Reg I: 9.20(b) | 6/09/1988 | Must maintain equipment not subject to Puget Sound Clean Air Agency Reg. I, Section 9.20(a) in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements<br>II.A.1(c) Campus-wide inspections | N/A | N/A |
| IA.10 | Puget Sound Clean Air Agency Reg I: 7.09(b) | 9/12/1996 | Must develop and implement an O&M Plan to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II, III | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections<br>II.B Operation and Maintenance (O&M) Plan Requirements | N/A | N/A |
| IA.11 | WAC 173-400-040(4) *(STATE ONLY)* | *8/20/1993* | Must use recognized good practice and procedures to reduce odors which may unreasonably interfere with any other property owners' use and enjoyment of their property | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |
| IA.12 | WAC 173-400-040(2) *(STATE ONLY)* | *8/20/1993* | Shall not deposit particulate matter beyond property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of the property | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |

| Reqmt. No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Reference Test Method |
|---|---|---|---|---|---|---|
| IA.13 | RCW 70.94.040 *(STATE ONLY)* | *1996* | Shall not emit air contaminants 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 or cause a violation of RCW 70.94 or any regulation adopted hereunder | II.A.1(b) Complaint response<br>II.A.1(c) Campus-wide inspections | N/A | N/A |
| IA.14 | RCW 70.94.610 *(STATE ONLY)* | *1991* | A person may not cause or allow combustion of oil that exceeds any of the following maximum limits:<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 | II.A.1(d) Fuels, trace compound and flashpoint | N/A | Ash ASTM D482-00a, Sulfur ASTM D3120-96, Halogens EPA SW846, 9076, PCB EPA SW846, 8080, Lead EPA 600/4-81-045, 200.7 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

## *B. EMISSION UNIT SPECIFIC APPLICABLE REQUIREMENTS*

The requirements in Section I.B. only apply to the specific emission units cited; however, the requirements in Section I.A. also apply.

### 1. Emission Unit #1 (EU-1): Boiler No. 6

This emission unit consists of activities and equipment associated with an Erie City #97849 Power Plant bent tube boiler, equipped to fire "very low sulfur (≤ 0.5% sulfur by weight)" or "distillate (≤0.05% sulfur by weight)" fuel oil and natural gas to a rated capacity of 250,000 pounds of steam per hour.

**Table 2 Emission Unit #1 (EU-1): Boiler No. 6**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-1.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-1.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, fuel** | | | | | | |
| EU-1.3 | Puget Sound Clean Air Agency Reg I: 9.08(a) | 4/14/1994 | It shall be unlawful for any person to cause or allow combustion of oil that exceeds any of the following maximum limits unless allowed by a Puget Sound Clean Air Agency Order of Approval issued under Reg I: 6.07:<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 | II.A.2(a) Fuels that are permitted to be fired at the boilers | N/A | Ash ASTM D482-00A, Sulfur ASTM D3120-96, Halogens EPA SW846, 9076, PCB EPA SW846, 8080, Lead EPA 600/4-81-045, 200.7 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, Opacity** | | | | | | |
| EU-1.4 | Puget Sound Clean Air Agency Reg I: 9.03 *This requirement will be superseded upon adoption of the 3/11/99 version of Reg I: 9.04(c) into the SIP*<br>WAC 173-400-040(1) | 9/08/1994<br>8/20/1993 | Boiler No. 6 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.2(e)(4) Opacity, Boiler No. 6 | N/A | Ecology Reference Method 9A, 7/12/1990 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-1.5 | Puget Sound Clean Air Agency Reg I: 9.09(a) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP*<br><br>Puget Sound Clean Air Agency Reg I: 9.09 *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09* | 2/10/1994<br><br>*4/9/1998* | Boiler No. 6 shall not emit particulate matter in excess of 0.05 gr/dscf @ 7% $O_2$ | II.A.2(e)(4) Opacity, Boiler No. 6 | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |
| EU-1.6 | WAC 173-400-050(1)<br><br>WAC 173-400-050(3) | 8/20/1993<br><br>8/20/1993 | Boiler No. 6 must meet all conditions of WAC 173-400-040 and shall not emit particulate matter in excess of 0.10 gr/dscf corrected to 7% $O_2$ | II.A.2(e)(4) Opacity, Boiler No. 6 | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5, 10/17/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, $SO_2$** | | | | | | |
| EU-1.7 | Puget Sound Clean Air Agency Reg I: 9.07<br>WAC 173-400-040(6) first paragraph only | 4/14/1994<br>8/20/1993 | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment | N/A | 1-hr tests | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |
| **Standards, HCl** | | | | | | |
| EU-1.8 | Puget Sound Clean Air Agency Reg I: 9.10(a) *(STATE ONLY)* | *6/09/1988* | Shall not emit HCl in excess of 100 ppm (dry) corrected to 7% $O_2$ for combustion sources | II.A.2(a) Fuels that are permitted to be fired at the boilers | 1-hour average | 40 CFR 60, Appendix A, Reference Methods 26 or 26A, 10/17/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### 2. Emission Unit #2 (EU-2): Boiler No. 4

This emission unit consists of activities and equipment associated with a Foster Wheeler AG-5165 boiler, equipped to fire natural gas and "very low sulfur" oil to a rated capacity of 236 MMBtu/hr, generating up to 200,000 pounds of steam per hour.

**Table 3 Emission Unit #2 (EU-2): Boiler No. 4**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-2.1 | 40 CFR 60.11(d) | 10/17/2000 | At all times, including during startup, shutdown, and periods of malfunction, shall operate and maintain the emission unit and control equipment in a manner consistent with good engineering practice for minimizing emissions | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-2.2 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 06/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-2.3 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, fuel** | | | | | | |
| EU-2.4 | Puget Sound Clean Air Agency Reg I: 9.08(a) | 4/14/1994 | It shall be unlawful for any person to cause or allow combustion of oil that exceeds any of the following maximum limits unless allowed by a Puget Sound Clean Air Agency Order of Approval issued under Reg I: 6.07:<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 | II.A.2(a) Fuels that are permitted to be fired at the boilers | N/A | Ash ASTM D482-00A, Sulfur ASTM D3120-96, Halogens EPA SW846, 9076, PCB EPA SW846, 8080, Lead EPA 600/4-81-045, 200.7 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, Opacity** | | | | | | |
| EU-2.5 | Puget Sound Clean Air Agency Reg I: 9.09(b) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP.* | 2/10/1994 | Boiler No. 4 stack 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 or greater than 5% opacity for a 1-hour average | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(2) Opacity, Boiler No. 4<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | Ecology Reference Method 9A, 7/12/1990 |
| EU-2.6 | WAC 173-400-040(1) | 8/20/1993 | Boiler No. 4 stack 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.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(2) Opacity, Boiler No. 4<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | Ecology Reference Method 9A, 7/12/1990 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-2.7 | Puget Sound Clean Air Agency Reg I: 9.04(c) *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09(b)* | *04/9/1998* | Boiler No. 4 stack shall not emit any air pollutants which exhibit greater than 20% opacity for any consecutive 6-minute period or greater than 5% opacity for a 1-hour average | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(2) Opacity, Boiler No. 4<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000 |
| EU-2.8 | 40 CFR 60.11(c)<br>40 CFR 60.43b(g) | 02/24/1997<br>10/17/2000 | Emissions standards for opacity in 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction | N/A | N/A | N/A |
| EU-2.9 | 40 CFR 60.43b(f) | 10/17/2000 | Boiler No. 4 stack shall not emit any air pollutants, which exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(2) Opacity, Boiler No. 4<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7<br>II.A.3(a) Federally enforceable QA Requirements | 6-minute average | 40 CFR 60, Appendix A, Reference Method 9, 7/01/2000<br>40 CFR 60.11(d), 10/17/2000<br>40 CFR 60.46b(d)(7), 4/10/2001<br>40 CFR 60.48b(a), 4/10/2001 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-2.10 | Puget Sound Clean Air Agency Reg I: 9.09(a) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP*<br><br>Puget Sound Clean Air Agency Reg I: 9.09 *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09(a)* | 2/10/1994<br><br>*4/09/1998* | Boiler No. 4 stack shall not emit particulate matter in excess of 0.05 gr/dscf @ 7% $O_2$ | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br><br>II.A.2(e)(2) Opacity, Boiler No. 4<br><br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br><br>II.A.3(b) Non-federally enforceable QA requirements | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-2.11 | WAC 173-400-050(1)<br>WAC 173-400-050(3) | 8/20/1993<br>8/20/1993 | Must meet all conditions of WAC 173-400-040 and shall not emit particulate matter in excess of 0.10 gr/dscf corrected to 7% $O_2$ | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(2) Opacity, Boiler No. 4<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 |
| **Standards, $SO_2$** | | | | | | |
| EU-2.12 | Order of Approval No. 6206(5)(a)<br>*Note: This condition has been superseded by Order of Approval No. 7061(7)(a), 8/09/2001, Condition EU-3.18* | 9/26/1995 | The Power Plant combined stack shall not emit $SO_2$ in excess of 790 tons per year | II.A.2(c) Distillate oil sulfur content, Boiler No. 4<br>II.A.2(e)(6) $SO_2$, Boiler No. 4 and Boiler No. 7 stacks<br>V.P.2(d)(1) $SO_2$ Reporting Requirements<br>V.P.2(e)(1) Emission Rate Reporting<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Any 12-consecutive month period | 40 CFR 60, Appendix A, Reference Methods 6C and 19, 7/01/2000<br>ASTM Methods D129-00, D1552-95, D2622-98, or D1266-98 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-2.13 | Puget Sound Clean Air Agency Reg I: 9.07<br>WAC 173-400-040(6) first paragraph only | 04/14/1994<br>08/20/1993 | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment | N/A | 1-hr tests | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |
| EU-2.14 | 40 CFR 60.42b(g) | 10/17/2000 | Emission standards for $SO_2$ in 40 CFR 60.42b apply at all times including periods of startup, shutdown, and malfunction | N/A | N/A | N/A |
| EU-2.15 | 40 CFR 60.42b(j) | 10/17/2000 | Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by:<br>(1) Following the performance testing procedures as described in 40 CFR 60.45b(c) or 40 CFR 60.45b(d), and following the monitoring procedures as described in 40 CFR 60.47b(a) or 40 CFR 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or<br>(2) Maintaining fuel receipts as described in 40 CFR 60.49b(r) | II.A.2(c) Distillate oil sulfur content, Boiler No. 4<br>V.P.3(c) SO2 Reporting Requirement for Boilers No. 4 and No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | N/A | 40 CFR 60, Appendix A, Reference Methods 6C and 19, 7/1/2000<br>ASTM Methods D129-64, D1552-83, D2622-87, or D1266-87 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, HCl** | | | | | | |
| EU-2.16 | Puget Sound Clean Air Agency Reg I: 9.10(a) *(STATE ONLY)* | *6/09/1988* | Shall not emit HCl in excess of 100 ppm (dry) corrected to 7% $O_2$ for combustion sources | II.A.2(a) Fuels that are permitted to be fired at the boilers | 1-hour average | 40 CFR 60, Appendix A, Reference Methods 26 or 26A, 10/17/2000 |
| **Standards, NOx** | | | | | | |
| EU-2.17 | Order of Approval No. 6206(5)(b)<br>*Note: This condition has been superseded by Order of Approval No. 7061(7)(b), 8/09/2001, Condition EU-3.21* | 9/26/1995 | The Power Plant combined stack shall not emit $NO_X$ in excess of 498 tons per year | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br>V.P.2(e)(1) Emission Rate Reporting<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | 12-month rolling average | 40 CFR 60, Appendix A, Reference Methods 7E, and 19, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-2.18 | Order of Approval No. 6206(6) | 9/26/1995 | Boiler No. 4 shall not emit $NO_X$ in excess of:<br>(a) 0.10 pound per million Btu (lb/MM Btu) when firing on natural gas with a single burner;<br>(b) 0.13 lb/MMBtu when firing on natural gas with two burners; and<br>(c) 0.20 lb/MMBtu when firing on No. 2 distillate oil | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | 1-hour average | 40 CFR 60, Appendix A, Reference Methods 7E, and 19, 7/1/2000 |
| EU-2.19 | 40 CFR 60.44b(h)<br>40 CFR 60.46b(a) | 9/16/1998<br>4/10/2001 | Emissions standards for $NO_X$ in 40 CFR 60.44b apply at all times, including periods of startup, shutdown or malfunction | N/A | N/A | N/A |
| EU-2.20 | 40 CFR 60.44b(a) | 9/16/1998 | Boiler No. 4 shall not emit $NO_X$ in excess of 0.20 lb/MMBtu heat input when firing natural gas or distillate oil | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>II.A.2(g) NSPS Subpart Db NOX recordkeeping requirements (Boilers No. 4 and No. 7)<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | 30-day rolling average | 40 CFR 60, Appendix A, Reference Methods 7E, and 19, 7/1/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### 3. Emission Unit #3 (EU-3): Boiler No. 7

This emission unit consists of activities and equipment associated with a Foster Wheeler Model 5200 Fw 'D' boiler with Todd Low-$NO_X$ burners and flue gas recirculation, equipped to fire distillate oil and natural gas to a rated capacity of 266 MMBtu/hr, exhausting out the existing main stack at 56,000 scfm and 275 °F.

**Table 4 Emission Unit #3 (EU-3): Boiler No. 7**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Pre-startup** | | | | | | |
| EU-3.1 | 40 CFR 60.7(a) | 2/12/1999 | Submit notification of construction start date no later than 30 days after commencement and initial startup date within 15 days of startup | V.P.3(a) Initial Notifications for Boiler No. 7 | N/A | N/A |
| **Operation** | | | | | | |
| EU-3.2 | 40 CFR 60.11(d) | 10/17/2000 | At all times, including during startup, shutdown, and periods of malfunction, shall operate and maintain the emission unit and control equipment in a manner consistent with good engineering practice for minimizing emissions | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-3.3 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-3.4 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, fuel** | | | | | | |
| EU-3.5 | Order of Approval No. 7061(11) | 8/09/2001 | Shall add only fuel oil with a sulfur content of 0.05% or less by weight to the Power Plant underground storage tank | II.A.2(d) Distillate oil sulfur content, Boiler No. 7<br>V.P.3(c) SO2 Reporting Requirement for Boilers No. 4 and No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | N/A | N/A |
| EU-3.6 | Order of Approval No. 7061(12) | 8/09/2001 | After December 31, 2005, shall burn only fuel oil with a sulfur content of 0.05% or less in Boiler No. 7 | II.A.2(d) Distillate oil sulfur content, Boiler No. 7<br>V.P.3(c) SO2 Reporting Requirement for Boilers No. 4 and No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | N/A | ASTM Methods D129-00, D1552-95, D2622-98, or D1266-98 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.7 | Puget Sound Clean Air Agency Reg I: 9.08(a) | 4/14/1994 | It shall be unlawful for any person to cause or allow combustion of oil that exceeds any of the following maximum limits unless allowed by a Puget Sound Clean Air Agency Order of Approval issued under Reg I: 6.07:<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 | II.A.2(a) Fuels that are permitted to be fired at the boilers | N/A | Ash ASTM D482-00A, Sulfur ASTM D3120-96, Halogens EPA SW846, 9076, PCB EPA SW846, 8080, Lead EPA 600/4-81-045, 200.7 |
| **Standards, Opacity** | | | | | | |
| EU-3.8 | Puget Sound Clean Air Agency Reg I: 9.09(b) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP* | 2/10/1994 | Boiler No. 7 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 or greater than 5% opacity for a 1-hour average | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(3) Opacity, Boiler No. 7<br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br>II.A.3(a) Federally enforceable QA Requirements | N/A | Ecology Reference Method 9A, 7/12/1990 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.9 | WAC 173-400-040(1) | 8/20/1993 | Boiler No. 7 stack 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.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(3) Opacity, Boiler No. 7<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | Ecology Reference Method 9A, 7/12/1990 |
| EU-3.10 | Puget Sound Clean Air Agency Reg I: 9.04(c) *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09(b)* | *4/09/1998* | Boiler No. 7 stack shall not emit any air pollutants which exhibit greater than 20% opacity for any consecutive 6-minute period or greater than 5% opacity for a 1-hour average | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.11 | Order of Approval No. 7061(14) | 8/09/2001 | Boiler No. 7 stack shall not emit any air pollutants which exhibit greater than 10% opacity for any consecutive 6-minute period | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br>II.A.3(b) Non-federally enforceable QA requirements | N/A | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000 |
| EU-3.12 | 40 CFR 60.11(c)<br>40 CFR 60.43b(g) | 02/24/1997<br>10/17/2000 | Emissions standards for opacity in 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction | N/A | N/A | N/A |
| EU-3.13 | 40 CFR 60.43b(f) | 10/17/2000 | Boiler No. 7 shall not emit any air pollutants, which exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(3) Opacity, Boiler No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7<br>II.A.3(a) Federally enforceable QA Requirements | 6-minute average | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000<br>40 CFR 60.11(d), 10/17/2000<br>40 CFR 60.46b(d)(7), 4/10/2001<br>40 CFR 60.48b(a), 4/10/2001 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-3.14 | Order of Approval No. 7061(7)(d) | 8/09/2001 | The Power Plant combined stack shall not emit $PM_{10}$ in excess of 18 tons per year | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>V.P.2(e)(1) Emission Rate Reporting<br>II.A.3(b) Non-federally enforceable QA requirements | Any 12-consecutive month period | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 or Reference Method 201A or 202 |
| EU-3.15 | Order of Approval No. 7061(13) | 8/09/2001 | Boiler No. 7 shall not emit particulate matter in excess of 0.02 gr/dscf @ 7% $O_2$ | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br>II.A.2(e)(3) Opacity, Boiler No. 7<br>II.A.3(a) Federally enforceable QA Requirements | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.16 | Puget Sound Clean Air Agency Reg I: 9.09(a) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP*<br><br>Puget Sound Clean Air Agency Reg I: 9.09 *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09(a)* | 2/10/1994<br><br>*4/09/1998* | Boiler No. 7 shall not emit particulate matter in excess of 0.05 gr/dscf @ 7% $O_2$ | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br><br>II.A.2(e)(3) Opacity, Boiler No. 7<br><br>V.P.2(c) Non-federally enforceable CEMS Reporting Requirements<br><br>II.A.3(b) Non-federally enforceable QA requirements | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |
| EU-3.17 | WAC 173-400-050(1)<br><br>WAC 173-400-050(3) | 8/20/1993<br><br>8/20/1993 | Boiler No. 7 shall meet all conditions of WAC 173-400-040 and shall not emit particulate matter in excess of 0.10 gr/dscf corrected to 7% $O_2$ | II.A.2(e)(1) Opacity, Boiler No. 4 and Boiler No. 7 stacks<br><br>II.A.2(e)(3) Opacity, Boiler No. 7<br><br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br><br>II.A.3(b) Non-federally enforceable QA requirements | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, $SO_2$** | | | | | | |
| EU-3.18 | Order of Approval No. 7061(7)(a) | 8/09/2001 | The Power Plant combined stack shall not emit $SO_2$ in excess of 48 tons per year | II.A.2(d) Distillate oil sulfur content, Boiler No. 7<br>II.A.2(e)(6) SO2, Boiler No. 4 and Boiler No. 7 stacks<br>V.P.3(c) SO2 Reporting Requirement for Boilers No. 4 and No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Any 12-consecu-tive month period | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |
| EU-3.19 | Puget Sound Clean Air Agency Reg I: 9.07<br>WAC 173-400-040(6) first paragraph only | 4/14/1994<br>8/20/1993 | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment | N/A | 1-hr tests | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.20 | 40 CFR 60.42b(j) | 10/17/2000 | Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by:<br>(1) Following the performance testing procedures as described in 40 CFR 60.45b(c) or 40 CFR 60.45b(d), and following the monitoring procedures as described in 40 CFR 60.47b(a) or 40 CFR 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or<br>(2) Maintaining fuel receipts as described in 40 CFR 60.49b(r) | II.A.2(c) Distillate oil sulfur content, Boiler No. 4<br>V.P.3(c) SO2 Reporting Requirement for Boilers No. 4 and No. 7<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | N/A | 40 CFR 60, Appendix A, Reference Methods 6C and 19, 7/1/2000<br>ASTM Methods D129-64, D1552-83, D2622-87, or D1266-87 |
| **Standards, $NO_X$** | | | | | | |
| EU-3.21 | Order of Approval No. 7061(7)(b) | 8/09/2001 | The Power Plant combined stack shall not emit $NO_X$ in excess of 384 tons per year | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Any 12-consecu-tive month period | 40 CFR 60, Appendix A, Reference Methods 7E and 19, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.22 | Order of Approval No. 7061(9)(a)<br>Order of Approval No. 7061(9)(c) | 8/09/2001 | Boiler No. 7 shall not emit $NO_X$ in excess of the following rates on a dry basis, while operating at 25% of capacity or greater, not including startup or shut-down periods:<br>▪ 0.05 lb/MMBtu when firing on natural gas;<br>▪ 0.12 lb/MMBtu when firing on distillate oil | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Hourly average | 40 CFR 60, Appendix A, Reference Methods 7E and 19, 7/1/2000 |
| EU-3.23 | Order of Approval No. 7061(10)(a)<br>Order of Approval No. 7061(10)(c) | 8/09/2001 | Boiler No. 7 stack shall not emit $NO_X$ in excess of the following rates on a dry basis, while operating at less than 25% and greater than 12.5% of capacity, not including startup or shut-down periods:<br>▪ 0.07 lb/MMBtu when firing on natural gas;<br>▪ 0.16 lb/MMBtu when firing on distillate oil | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>V.P.2(b) Federally Enforceable CEMS Reporting Requirements<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Hourly average | 40 CFR 60, Appendix A, Reference Methods 7E and 19, 7/1/2000 |
| EU-3.24 | 40 CFR 60.44b(h)<br>40 CFR 60.46b(a) | 9/16/1998<br>4/10/2001 | Emissions standards for $NO_X$ in 40 CFR 60.44b apply at all times, including periods of startup, shutdown or malfunction | N/A | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-3.25 | 40 CFR 60.44b(a) | 09/16/1998 | Boiler No. 7 shall not emit $NO_X$ in excess of 0.20 lb/MMBtu heat input when firing natural gas or distillate oil | II.A.2(e)(7) NOX, Boilers No 4 and No. 7<br>II.A.2(g) NSPS Subpart Db NOX recordkeeping requirements (Boilers No. 4 and No. 7)<br>II.A.3(a) Federally enforceable QA Requirements<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | 30-day rolling average | 40 CFR 60, Appendix A, Reference Methods 7E, and 19, 7/1/2000 |
| **Standards, CO** | | | | | | |
| EU-3.26 | Order of Approval No. 7061(7)(c) | 8/09/2001 | The Power Plant combined stack shall not emit CO in excess of 148 tons per year | II.A.2(e)(8) CO, Boiler No. 7 stack<br>V.P.2(e)(1) Emission Rate Reporting<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Any 12-consecutive month period | 40 CFR 60, Appendix A, Reference Method 10 or 10A, 7/1/2000 |
| EU-3.27 | Order of Approval No. 7061(9)(b) & No. 7061(9)(d) | 8/09/2001 | Boiler No. 7 stack shall not emit CO in excess of 0.10 lb/MMBtu on a dry basis, while operating at 25% of capacity or greater, not including startup or shut-down periods | II.A.2(e)(8) CO, Boiler No. 7 stack<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Hourly average | 40 CFR 60, Appendix A, Reference Method 10 or 10A, 7/1/2000 |
| EU-3.28 | Order of Approval No. 7061(10)(b) & No. 7061(10)(d) | 8/09/2001 | Boiler No. 7 stack shall not emit CO in excess of 0.25 lb/MMBtu on a dry basis, while operating at less than 25% and greater than 12.5% of capacity, not including startup or shut-down periods | II.A.2(e)(8) CO, Boiler No. 7 stack<br>II.A.2(f) Recordkeeping for Boilers No. 4 and No. 7 | Hourly average | 40 CFR 60, Appendix A, Reference Method 10 or 10A, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, HCl** | | | | | | |
| EU-3.29 | Puget Sound Clean Air Agency Reg I: 9.10(a) *(STATE ONLY)* | *6/09/1988* | Shall not emit HCl in excess of 100 ppm (dry) corrected to 7% $O_2$ for combustion sources | II.A.2(a) Fuels that are permitted to be fired at the boilers | 1-hour average | 40 CFR 60, Appendix A, Reference Methods 26 or 26A, 10/17/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### 4. Emission Unit #4 (EU-4): Crematory

This emission unit consists of activities and equipment associated with an IE Eng. Co. Model IE43-ET 200 pound-per-hour crematory exhausting vertically from a stack 98 feet above the ground.

**Table 5 Emission Unit #4 (EU-4): Crematory**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-4.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-4.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-4.3 | Order of Approval No. 5602(4) | 9/2/1994 | May operate the crematory during non-daylight hours | II.A.2(e)(5) Opacity, Crematory | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-4.4 | Puget Sound Clean Air Agency Reg I: 9.05 | 12/9/1993 | Unlawful to burn combustible refuse except in a multiple chamber incinerator with emission control equipment. Unlawful to operate refuse-burning equipment at any time other than daylight hours. | II.A.2(e)(5) Opacity, Crematory | N/A | N/A |
| | Puget Sound Clean Air Agency Reg I: 3.23 | 12/9/1993 | Other emission control methods may be employed to achieve compliance if they are demonstrated to be just as effective and are included in a Puget Sound Clean Air Agency Regulatory Order or permit | | | |
| | Order of Approval No. 5602(4) | 9/21/1994 | Puget Sound Clean Air Agency has determined that the University of Washington crematory is at least as effective as multiple chambered incinerators required for burning combustible refuse by Reg I: 9.05 and constitutes an alternate means of compliance under Reg I: 3.23, and also has determined that University of Washington's continuous emissions monitoring system constitutes an alternate means of compliance under Reg I: 3.23, allowing operation of this facility under the terms and conditions of this Order of Approval during other than the daylight hours required by Reg I: 9.05 and WAC 173-400-050(2) | | | |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, Opacity** | | | | | | |
| EU-4.5 | WAC 173-400-040(1) | 8/20/1993 | Crematory stack 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.2(e)(5) Opacity, Crematory | N/A | Ecology Reference Method 9A, 7/12/1990 |
| EU-4.6 | Order of Approval No. 5602(5) | 9/2/1994 | Crematory stack shall not emit any air pollutants which exhibit greater than 10% opacity for a period or periods aggregating more than 3 minutes in any hour | II.A.2(e)(5) Opacity, Crematory | N/A | Ecology Reference Method 9A, 7/12/1990 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-4.7 | Puget Sound Clean Air Agency Reg I: 9.09(a) *This requirement will be superseded upon adoption of the 4/9/1998 version of Reg I: 9.09 into the SIP*<br>Puget Sound Clean Air Agency Reg I: 9.09 *(STATE ONLY) This requirement will become federally enforceable upon adoption into the SIP and will replace the 2/10/94 version of Reg I: 9.09(a)* | 2/10/1994<br>*4/09/1998* | Crematory stack shall not emit particulate matter in excess of 0.10 gr/dscf @ 7% $O_2$ | II.A.2(e)(5) Opacity, Crematory | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 as modified by Puget Sound Clean Air Agency Resolution dated 8/11/1983 |
| EU-4.8 | WAC 173-400-050(1)<br>WAC 173-400-050(3) | 8/20/1993<br>8/20/1993 | Must meet all conditions of WAC 173-400-040 and shall not emit particulate matter in excess of 0.10 gr/dscf corrected to 7% $O_2$ from combustion and incineration sources | II.A.2(e)(5) Opacity, Crematory | 1-hr tests | 40 CFR 60, Appendix A, Reference Method 5 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, $SO_2$** | | | | | | |
| EU-4.9 | Puget Sound Clean Air Agency Reg I: 9.07<br>WAC 173-400-040(6) first paragraph only | 4/14/1994<br>8/20/1993 | Shall not emit $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment | N/A | 1-hr tests | 40 CFR 60, Appendix A, Reference Methods 6C, 7/1/2000 |
| **Standards, HCl** | | | | | | |
| EU-4.10 | Puget Sound Clean Air Agency Reg I: 9.10(a) | 6/09/1988 | Shall not emit HCl in excess of 100 ppm (dry) corrected to 7% $O_2$ for combustion sources | II.A.2(b) Fuel permitted to be fired at the crematory | 1-hour average | 40 CFR 60, Appendix A, Reference Methods 26 or 26A, 10/17/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### 5. Emission Unit #5 (EU-5): Ethylene Oxide Sterilizer

This emission unit consists of activities and equipment associated with an ethylene oxide (EtO) sterilizer located in the hospital. The control device is an AMSCO/Donaldson EtO catalytic afterburner, venting to the atmosphere through a stack at 110 cubic feet per minute and 500 °F.

**Table 6 Emission Unit #5 (EU-5): Ethylene Oxide Sterilizer**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-5.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-5.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| **Standards, Ethylene Oxide** | | | | | | |
| EU-5.3 | Puget Sound Clean Air Agency Reg III: 3.07(b) | 1/09/1992 | Shall maintain a control efficiency for EtO exhaust from the sterilizer or aerator of at least:<br>EtO usage, lb/yr — Control efficiency<br>>5,000 — Sterilizer 99.9; Aerator 99.0<br>>600 and ≤5,000 — Sterilizer 99.0; Aerator 95.0<br>≥25 and ≤600 — Sterilizer 99.0; Aerator 90.0 | II.B Operation and Maintenance (O&M) Plan Requirements<br>V.N.1(c) Annual Testing of Ethylene Oxide Sterilizer | N/A | NIOSH Method 1614, 8/15/1994 or NIOSH Method 3702, 8/15/1994 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-5.4 | Puget Sound Clean Air Agency Reg III: 3.07(c) | 1/09/1992 | EtO emission concentration shall not exceed 10 ppm as measured 1 cm away from any portion of the sterilizer other than the exhaust | II.B Operation and Maintenance (O&M) Plan Requirements<br>V.N.1(c) Annual Testing of Ethylene Oxide Sterilizer | N/A | NIOSH Method 3702 |
| EU-5.5 | Puget Sound Clean Air Agency Reg III: 3.07(d)<br>Order of Approval No. 4578(4) | 1/09/1992<br>8/13/1992 | EtO in the sterilizer exhaust vacuum pump working fluid shall not be discharged to the wastewater stream | II.B Operation and Maintenance (O&M) Plan Requirements | N/A | |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

## 6. Emission Unit #6 (EU-6): Dust Collector and Baghouse for Woodworking Equipment, Gould Hall

This emission unit consists of activities and equipment associated with woodworking equipment located at Gould Hall, Room 132. The control device is a Torit Model 30 FB cyclone dust collector and baghouse rated at 3,750 cfm.

**Table 7 Emission Unit #6 (EU-6): Dust Collector and Baghouse for Woodworking Equipment, Gould Hall**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-6.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-6.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| **Standards, Opacity** | | | | | | |
| EU-6.3 | Puget Sound Clean Air Agency Reg I: 9.03<br>WAC 173-400-040(1) | 9/08/1994<br>8/20/1993 | The Gould Hall baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 20% opacity for a period or periods aggregating more than 3 minutes per hour | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | Ecology Reference Method 9A, 7/12/1990 |
| EU-6.4 | Order of Approval No. 6081(4) | 8/23/1995 | The Gould Hall baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 5% opacity for any consecutive 6-minute period | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-6.5 | Order of Approval No. 6081(5) | 8/23/1995 | The Gould Hall baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 0.02 gr/DSCF | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | 40 CFR 60, Appendix A, Reference Method 5, 10/17/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### 7. Emission Unit #7 (EU-7): Dust Collector and Baghouse for Woodworking Equipment, Plant Services Carpentry Shop

This emission unit consists of activities and equipment associated with woodworking equipment located at Plant Services Carpentry Shop. The control device is a Mikro-Puls baghouse rated at 13,500 cfm.

**Table 8 Emission Unit #7 (EU-7): Dust Collector and Baghouse for Woodworking Equipment, Plant Services Carpentry Shop**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Operation** | | | | | | |
| EU-7.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Reg. I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-7.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| **Standards, Opacity** | | | | | | |
| EU-7.3 | Puget Sound Clean Air Agency Reg I: 9.03<br>WAC 173-400-040(1) | 9/08/1994<br>8/20/1993 | The Plant Services Carpentry Shop baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 20% opacity for more than 3 minutes per hour | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | Ecology Method 9A (See Section IX) |
| EU-7.4 | Order of Approval No. 6083(4) | 8/23/1995 | The Plant Services Carpentry Shop baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 5% opacity for any consecutive 6-minute period | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | 40 CFR 60, Appendix A, Reference Method 9, 7/1/2000 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Standards, PM** | | | | | | |
| EU-7.5 | Order of Approval No. 6083(5) | 8/23/1995 | The Plant Services Carpentry Shop baghouse exhaust and related dust collection equipment shall not emit air contaminants in excess of 0.02 gr/DSCF | II.A.1(a) Opacity monitoring<br>II.A.1(c) Campus-wide inspections | N/A | 40 CFR 60, Appendix A, Reference Method 5, 10/17/2000 |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### Emission Unit #8 (EU-8): Gasoline Fueling Operations at Newer, Stage I and Stage 2 Vapor Recovery System

This gasoline fueling activity, located at 4549 – 25th Avenue NE in Seattle, consists of a Stage 1 and 2 dual-point vapor recovery system on one 15,000 gallon, one 10,000 gallon, and one 5,000 gallon underground gasoline storage tanks.

**Table 9 Emission Unit #8 (EU-8): Gasoline Fueling Operations at Newer, Stage I and Stage 2 Vapor Recovery System**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-8.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Regulation I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-8.2 | Puget Sound Clean Air Agency Reg. II: 2.07(b) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 2/10/1994 | Shall not cause or allow the transfer of gasoline from a transport tank into a stationary storage tank unless<br>▪ The tank is CARB Stage 1 certified with submerged fill pipe;<br>▪ The transport tank is equipped to balance vapors; and<br>▪ All vapor lines are connected between the transport tank and the stationary storage tank, and the Stage 1 vapor recovery system is operating | II.A.2(e)(11) Gasoline Station Monitoring | N/A | CARB Test Procedures: TP-201.3 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-8.3 | Puget Sound Clean Air Agency Reg. II: 2.07(b) *(STATE ONLY) This requirement shall become federally enforceable upon adoption into the SIP* | *12/9/1999* | Shall not cause or allow the transfer of gasoline from a transport tank into a stationary storage tank unless<br>• The tank is CARB Stage 1 certified with submerged fill pipe; and<br>• The Stage 1 system is visually inspected after each product delivery and any equipment found to be defective shall be repaired or replaced as soon as possible but no later than 7 days after the inspection | II.A.2(e)(11) Gasoline Station Monitoring | N/A | CARB Test Procedures: TP-201.3 |
| EU-8.4 | Puget Sound Clean Air Agency Reg. II: 2.07(a)(2) and (b)(1) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 2/10/1994 | Tanks over 1000 gallons must be equipped with CARB certified Stage 1 vapor recovery system with submerged fill pipe | II.A.2(e)(11) Gasoline Station Monitoring | N/A | CARB Test Procedures: TP-201.3 |
| EU-8.5 | Puget Sound Clean Air Agency Reg. II: 2.07(b)(2) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 2/10/1994 | Transport tank must be equipped to balance vapors for Stage 1 tanks | II.A.2(e)(11) Gasoline Station Monitoring | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-8.6 | Puget Sound Clean Air Agency Reg. II: 2.07(b)(3) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 2/10/1994 | Stage 1 system must be operating with the vapor return lines connected between stationary and transport tanks | II.A.2(e)(11) Gasoline Station Monitoring | N/A | N/A |
| EU-8.7 | Puget Sound Clean Air Agency Reg II: 2.07(c) *(STATE ONLY) This requirement shall become federally enforceable upon adoption into the SIP* | *12/9/1999* | Shall not allow the transfer of gasoline from any storage tank into any motor vehicle fuel tank (except motorcycles) unless:<br>• The dispenser system is CARB Stage 2 certified,<br>• Operating instructions for Stage 2 equipment to include warning against topping off, and Dept of Ecology's toll-free telephone number for complaints about the system, are posted, and<br>• Stage 2 vapor recovery equipment shall be visually inspected for equipment defects once per week. Any defective equipment shall be taken out of service until repaired | II.A.2(e)(11) Gasoline Station Monitoring | N/A | CARB Test Procedures: TP-201.3; TP-201.4; and TP-201.5 |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-8.8 | Puget Sound Clean Air Agency Reg. II: 2.08(b) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 7/8/1999 | Current inspection sticker must be displayed on transport tank vehicle or current leak test certification for transport tank must be on file prior to filling storage tank | II.A.2(e)(11) Gasoline Station Monitoring | N/A | N/A |
| EU-8.9 | Puget Sound Clean Air Agency Reg. II: 2.08(d)(1) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 7/8/1999 | Vapor recovery system operated during transfer so gasoline vapor < LEL | II.A.2(e)(11) Gasoline Station Monitoring | N/A | N/A |
| EU-8.10 | Puget Sound Clean Air Agency Reg. II: 2.08(d)(2) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(b) into the SIP* | 7/8/1999 | No liquid leaks > 3 drops/minute during transfer and no more than 10 ml of liquid drainage per disconnect | II.A.2(e)(11) Gasoline Station Monitoring | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-8.11 | Puget Sound Clean Air Agency Reg II: 2.07(e) *This requirement will be superseded upon adoption of the 12/9/99 version of Reg. II: 2.07(c) into the SIP* | 02/10/1994 | Shall not allow the transfer of gasoline from any storage tank into any motor vehicle fuel tank (except motorcycles) unless:<br>• The dispenser system is CARB Stage 2 certified,<br>• The vapor return line is connected between the storage tank and the motor vehicle,<br>• All bellows-type nozzles are inspected daily. Any defective equipment shall be taken out of service until repaired, and<br>• Operating instructions for Stage 2 equipment to include warning against topping off, and Dept of Ecology's toll-free telephone number for complaints about the system, are posted | II.A.2(e)(11) Gasoline Station Monitoring | N/A | CARB Test Procedures: TP-201.3; TP-201.4; and TP-201.5 |
| EU-8.12 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

## 8. Emission Unit #9 (EU-9): Dry Filter Spray Coating Booth at the Oceanography Building

This emission unit consists of activities and equipment associated with one Paint Spray Booth in the Oceanography Building, with 18,000 cfm air circulation capacity, with a dry air filter system.

**Table 10 Emission Unit #9 (EU-9): Dry Filter Spray Coating Booth at the Oceanography Building**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-9.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 06/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Regulation I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-9.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-9.3 | Order of Approval No. 7588(3) | 11/24/1998 | Shall install and maintain a gauge to measure pressure drop across the spray booth exhaust filters. Within 90 days after beginning operations, the acceptable range for the gauge shall be clearly marked on or nearby the gauge | II.A.2(e)(9) Spray Coating Booth | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-9.4 | Order of Approval No. 7588(6) | 11/24/1998 | Shall use best management practices at its Oceanography Building spray coating operation, including the collection of VOC containing materials used for cleanup of equipment to minimize evaporation to the atmosphere, keeping containers used for storage and disposal of VOC containing materials closed except when materials are being added mixed, or removed; and storing solvent rags and paper for disposal in closed containers | N/A | N/A | N/A |
| EU-9.5 | Order of Approval No. 7588(7) | 11/24/1998 | Shall use only high volume, low pressure (HVLP) spray equipment at its Oceanography Building spray coating operation (0.1 to 10 psig for atomization) | N/A | N/A | N/A |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### Emission Unit #10 (EU-10): Fume Scrubber and Mist Eliminator at Fluke Hall

This emission unit consists of activities and equipment associated with one Harrington Model ECH horizontal fume scrubber located in Fluke Hall.

**Table 11 Emission Unit #10 (EU-10): Fume Scrubber and Mist Eliminator at Fluke Hall**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| EU-10.1 | Puget Sound Clean Air Agency Reg I: 9.20(a) | 6/09/1988 | Must maintain sources approved under Puget Sound Clean Air Agency Regulation I, Article 6 in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-10.2 | RCW 70.94.152(7) *(STATE ONLY)* | *1996* | Must maintain and operate equipment requiring an NOC in good working order | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| EU-10.3 | Order of Approval No. 5924(4) | 11/8/1995 | Shall install pressure differential indicator and operate the system in the range of 0.5 to 2.5 inches of water pressure | II.A.2(e)(10) ECH Horizontal Fume Scrubber | N/A | N/A |
| EU-10.4 | Order of Approval No. 5924(5) | 11/8/1995 | Shall install a pH indicator and operate the system such that the scrubber liquor pH stays within the range of 6.5 to 11.0 | II.A.2(e)(10) ECH Horizontal Fume Scrubber | N/A | N/A |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

## *C. EMISSION UNITS THAT HAVE NO SPECIFIC REQUIREMENTS*

The following emission units have no emission-unit specific requirements. Some units, such as Boilers No. 3 and No. 5, were built before Notice of Construction (NOC) Orders of Approval were required. Other units have NOC Orders of Approval that are in effect as of the date of issue of this air operating permit, but they do not have any emission unit specific emission limits or monitoring

requirements. **These emission units are not insignificant emission units. These emission units must comply with the general requirements of Section I.A. University of Washington shall conduct inspections and take corrective actions as required under II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements.**

### 1. Emission Unit #11 (EU-11): Boilers No. 3 and No. 5

Boiler No. 3 is a Riley P-92-27-Ww #2561 boiler rated at 90,000 pounds of steam per hour that was constructed in 1948.

Boiler No. 5 is a Riley #3356 boiler rated at 125,000 pounds of steam per hour that was constructed in 1958.

### 2. Emission Unit #12 (EU-12): Cyclones and Baghouse Controlled Processes

- This emission unit and controls include two cyclones on a shop exhaust system at University's Plant Services.

University of Washington shall conduct inspections and take corrective actions as required under II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements and II.A.1(c) Campus-wide inspections. University of Washington shall follow Operation and Maintenance requirements in II.B.2 Dust Collection Equipment and Baghouse O&M Plan.

### 3. Emission Unit #13 (EU-13): Spray Coating Booths

These emission units and controls include:

- Paint spray booth in the Plant Services Building, with 22,600 cfm air circulation capacity.
- Paint spray booth in the Ceramic/Metal Art Building, with 7,355 cfm air circulation capacity. This emission unit was approved under NOC Order of Approval No. 5419, issued on May 20, 1994.
- Paint spray booth in the Health Sciences Center, Room F-106, with 8,800 cfm air circulation capacity, modified by replacing an existing water curtain with a dry air filter system. The modification to this emission unit was approved under NOC Order of Approval No. 5437, issued on May 20, 1994.
- Paint spray booth in the Art Building, Room 115B, rated at 7,000 cfm. This emission unit was approved under NOC Order of

Approval No. 6082, issued on August 23, 1995.

The monitoring, reporting and recordkeeping methods in II.A.2(e)(9) Spray Coating Booths apply to these units in addition to the general monitoring, maintenance, and recordkeeping methods of Section II.A

**Table 12 Emission Units #11, 12 & 13 (EU-11, EU-12 & EU-13): Emission Units That Have No Specific Requirements**

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Emission Unit #11 (EU-11): Boilers No. 3 and No. 5** | | | | | | |
| EU-11.1 | All requirements of Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | 6/09/1988 | Must comply with all requirements in Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements | N/A | N/A |
| **Emission Unit #12 (EU-12): Cyclones and Baghouse Controlled Processes** | | | | | | |
| EU-12.1 | All requirements of Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | 6/09/1988 | Must comply with all requirements in Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements<br>II.A.1(c) Campus-wide inspections<br>II.B.2 Dust Collection Equipment and Baghouse O&M Plan | N/A | N/A |

| Reqmt No. | Requirement | Adoption or Effective Date | Requirement Paraphrase (Information Only) | Monitoring, Maintenance & Recordkeeping Method (See Section II) | Emission Standard Period | Emission Standard Reference Test Method |
|---|---|---|---|---|---|---|
| **Emission Unit #13 (EU-13): Spray Coating Booths** | | | | | | |
| EU-13.1 | All requirements of Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | 6/09/1988 | Must comply with all requirements in Section I.A, CAMPUS-WIDE EMISSIONS LIMITS | II.A Minimum Monitoring, Maintenance & Recordkeeping Requirements<br>II.A.2(e)(9) Spray Coating Booths | N/A | N/A |

N/A = Not Applicable. A specific reference test method and/or emission standard period is specified in the requirement. A test method is neither needed nor appropriate.

### *D. Radioactive Air Emissions License*

September 29, 2000

# Radioactive Air Emissions License For The University of Washington

## The State of Washington Department of Health

The following are state only applicable requirements from the Washington Administrative Code Chapter 246-247.

### 1. EMISSION STANDARDS

The emission of radionuclides to the ambient air from the University of Washington as set forth in 40 CFR 61.92 shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem per year. **[WAC 246-247-040(1)]**

All existing emission units and nonsignificant modifications shall utilize ALARACT. **[WAC 246-247-040(4)]**

### 2. APPLICABLE REQUIREMENT TERMS

A Notice of Construction (NOC) is written information submitted under WAC 246-247-060(1) and (2) that provides information listed in WAC 246-247-110 "Appendix A - Application information requirements." This information must include the effective dose equivalent (EDE). The EDE is calculated using the source term derived from the COMPLY CODE, or other EPA, or State of Washington, Department of Health (Health) approved method.

**WAC 246-247-060(1)** requirements for new construction or modification of emission units are as follows:

Early in the design phase, the applicant shall submit a NOC containing the information required in Appendix A of WAC 246-247.

Within thirty days of receipt of the NOC, Health shall inform the applicant if additional information is required. The department may determine, on the basis of the information submitted, that the requirements of BARCT or ALARACT have been met, or may require the applicant to submit a BARCT or ALARACT demonstration compatible with Appendix B or C of WAC 246-247, respectively.

Within sixty days of receipt of all required information, Health shall issue an approval or denial to construct. The department may require changes to the final proposed control technology.

The applicant may request a phased approval process by so stating and submitting a limited application. Health may grant a conditional approval to construct for such activities as would not preclude the construction or installation of any control or monitoring equipment required after review of the completed application.

Health shall issue a license, or amend an existing license, authorizing operation of the emission unit(s) when the proposed new construction or modification is complete. For facilities subject to the air operating permit requirements of chapter 173-401, the license shall become part of the air operating permit issued by the Department of Ecology or a local air pollution control authority. For new construction, this action shall constitute registration of the emission unit(s).

**WAC 246-247-060(2)** requirements for modification of unregistered emission units that are not exempt from the regulations are as follows:

The applicant shall submit an application containing the information required in Appendix A of WAC 246-247.

Within thirty days of receipt of the application, Health shall inform the applicant if additional information is required. The department may determine, on the basis of the information submitted, that the requirements of BARCT or ALARACT have been met, or may require the applicant to submit a BARCT or ALARACT demonstration compatible with Appendix B or C of WAC 246-247, respectively.

Within sixty days of receipt of all required information, Health shall issue or amend the license. For facilities subject to the air operating permit requirements of Chapter 173-401, the license shall become part of the air operating permit issued by the department of ecology or a local air pollution control authority. This action shall constitute registration of the emission unit(s). A determination of non-compliance may result in the issuance of a Notice of Violation.

Health reserves the right to require the owner of an existing, unregistered emission unit to make modifications necessary to comply with the applicable standards of WAC 246-247-040.

The University of Washington shall notify the department of Health at least seven calendar days before any planned pre-operational tests of new or modified emission units that involve emissions control, monitoring, or containment systems of the emission unit(s). The department reserves the right to witness these tests under WAC 246-247-060 (4).

The ALARACT requirement means the use of radionuclide emission control technology that achieves emission levels that are consistent with ALARA. ALARACT compliance is demonstrated by evaluating the existing control system and proposed nonsignificant modification in relation to applicable technology standards and other control technologies operated successfully in similar applications. An ALARACT compliance demonstration is used for inspection or audit purposes, and to demonstrate compliance with the substantive ALARACT technology standard. **[WAC 246-247 030(4)] [WAC 246-247 130(Appendix C)]**

## 3. MONITORING, TESTING, QUALITY ASSURANCE, RECORD KEEPING AND REPORTING

Unless otherwise noted, monitoring, testing and quality assurance must be performed under the requirements of **WAC 246-247-075.**

Reporting and record keeping must be performed under the requirements of **WAC 246-247-080.**

## 4. EMISSION UNITS SPECIFIC APPLICABLE REQUIREMENTS TABLES

The following table lists the regulatory requirements for monitoring, emission abatement and specific limits and conditions in approved Notice of Construction applications.

In lieu of effluent monitoring at the stack, compliance with emission limits shall be demonstrated using the COMPLY code and by limiting radionuclide possession quantities to that listed in Table 4.1. **[WAC 246-247-040(5)]**

**Table 4.1**

| Building | Radionuclide | Release Form* | Possession Quantity in Curies | Unabated Release Rates in Curies/Year |
|---|---|---|---|---|
| New Fisheries Building | C-14 | Liquid | 4.74E-04 | Combined Forms |
| | C-14 | Volatile | 5.00E-05 | 1.01E-04 |
| | H-3 | Liquid | 1.42E-03 | Combined Forms |
| | H-3 | Volatile | 2.95E-04 | 5.92E-04 |
| | P-32 | Liquid | 5.89E-09 | 1.18E-11 |
| | P-33 | Volatile | 4.00E-07 | 8.00E-07 |
| New Oceanography Building | Ac-227 | Liquid | 1.91E-08 | 3.82E-11 |
| | C-14 | Solid | 2.45E-04 | Combined Forms |
| | C-14 | Liquid | 1.79E-01 | 1.26E-02 |
| | C-14 | Volatile | 3.57E-03 | " |
| | C-14 | Gas | 2.57E-03 | " |
| | Ca-45 | Solid | 9.91E-13 | 1.98E-18 |
| | H-3 | Liquid | 6.23E-02 | Combined Forms |
| | H-3 | Volatile | 1.38E-02 | 8.44E-01 |
| | H-3 | Gas | 4.08E-01 | " |
| | Pb-210 | Volatile | 1.50E-07 | 3.00E-07 |
| | Po-208 | Liquid | 3.52E-11 | 7.05E-14 |
| | P0-209 | Liquid | 8.91E-10 | 1.78E-12 |
| | Pu-236 | Liquid | 7.01E-11 | 1.40E-13 |
| | Pu-242 | Liquid | 1.50E-10 | 3.00E-13 |
| | S-35 | Liquid | 3.28E-04 | 6.57E-07 |
| | Th-230 | Liquid | 5.00E-08 | Combined Forms |
| | Th-230 | Volatile | 3.45E-08 | 6.90E-08 |
| | U-232 | Liquid | 2.66E-09 | 5.32E-12 |
| Seattle Life Sciences Center Annex | C-14 | Volatile | 1.75E-04 | 1.75E-04 |
| | H-3 | Volatile | 1.21E-02 | 1.21E-02 |
| | I-125 | Liquid | 7.81E-02 | 7.81E-02 |
| | P-32 | Liquid | 2.08E-02 | 2.08E-02 |
| | S-35 | Liquid | 7.96E-03 | 7.96E-03 |

*Materials indicated as "Volatile" are liquids which boil at less than 100° C, or are heated above their boiling point during processing.

The following Conditions and Limitations are associated with the use of At-211 in the Cochran Building.

1. After the experimental run, the glove box is allowed to decay for approximately one week. It is then opened and surveyed. Residual chemicals (liquid reagents) can be removed and the apparatus can be cleaned.

2. The abatement technology to be used for the At-211 is to include three levels of enclosures.

- Outside Enclosure: Radionuclide hood, exhausting through charcoal filter to a standard laboratory fume hood.
- Intermediate Enclosure: Glove box with ventilation exhaust through a HEPA and charcoal filters to the radioiodine hood.
- Experimental Enclosure: The distillation/reaction apparatus is contained inside the glove box, and contains a charcoal filter downstream of the reaction and upstream of the outlet (inside glove box).

3. A post usage survey of the At-211 glove box is required.

# II. MONITORING, MAINTENANCE AND RECORDKEEPING METHODS DESCRIPTION

## *A. Minimum Monitoring, Maintenance & Recordkeeping Requirements*

### 1. Campus-wide Monitoring, Maintenance & Recordkeeping Requirements

#### *(a) Opacity monitoring*

University of Washington shall conduct monthly inspections of the facility for visible emissions. Inspections are to be performed while the equipment is in operation during daylight hours. If, during the scheduled inspection or at any other time, visible emissions other than uncombined water are observed, University of Washington shall, as soon as possible, but no later than within 24 hours of the initial observation, take corrective action until there are no visible emissions or, alternatively, record the opacity using the reference test method or shut down the unit or activity until it can be repaired.

#### *(b) Complaint response*

University of Washington shall record and investigate air pollution complaints as soon as possible, but no later than three days after receipt. University of Washington shall identify the cause(s) of complaints based upon the following types of air pollutant emission circumstances:

1) 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

2) Any fugitive dust emissions, or

3) Any track-out onto paved roads open to the public, or

4) Any emissions of odor-bearing air contaminants, or

5) Complaints regarding other applicable requirements.

University of Washington shall investigate the complaint and determine if there was noncompliance with an applicable requirement of this permit. University of Washington shall correct any such compliance problems as soon as possible. University of Washington shall shut down the unit or activity if the unit or activity is not returned to a compliant status within 24 hours of identification.

### *(c) Campus-wide inspections*

University of Washington shall conduct a roof-top[1] inspection and a campus-wide inspection at least once per calendar quarter. These inspections shall include checking for prohibited activities under Section III of the permit and activities that require additional approval under Section IV of the permit. The inspections shall also examine the general state of compliance with the generally applicable requirements and the general effectiveness of the Operation & Maintenance (O&M) Plan.

Both the roof-top and campus-wide inspections shall include an inspection 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. Whenever engaging in construction or other activities that are likely to generate fugitive dust or track-out, University of Washington shall conduct inspections at least once each calendar quarter for fugitive dust and track-out.

University of Washington shall inspect the spray coating booth exhausts, cyclones and baghouses monthly for the following:

- Check for proper fan operation;
- Check for visible emissions while the emission generating equipment is operating, and
- Check for evidence of fugitive dust or fallout, such as particulate matter, visible inside and near the exit of the exhaust duct.

University of Washington shall correct any problems, such as excessive corrosion or damage to production or air pollution control equipment, that cause or are likely to cause violations of any of the terms or conditions of this permit as soon as possible, but not later than within 24 working hours. University of Washington shall shut down the unit or activity if the problem cannot be corrected within 24 working hours of identification.

### *(d) Fuels, trace compound and flashpoint*

University of Washington shall measure, record, and maintain records of contents of RCW 70.94.610 and Regulation I, Section 9.08(a)-listed trace compounds and flashpoint of all used oil received by the facility for the purpose of combustion in fuel burning equipment other than space heaters with maximum heat output of not greater than 0.5 MMBtu/hr. University of Washington

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1 *A "roof-top inspection" is a periodic look at the overall operation of the facility, taken from a viewpoint of sufficient height that so that the inspector can get a wide view of the overall facility, and get some idea of the point(s) of origin and possibly the cause(s) of any observed opacity.*

may use fuel supplier certification to demonstrate compliance instead of direct on-site measurement of used fuel oil trace compound content and flash point.

If the University of Washington uses fuel supplier certification to demonstrate compliance instead of direct on-site measurement of used fuel oil trace compound content and flashpoint, fuel supplier certification shall contain the following information:

- The name of the fuel supplier;
- Location of the oil when the sample was drawn for analysis, specifically including whether the oil was sampled as delivered to the University of Washington, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
- Results of the analysis for the compounds and flashpoint listed in Requirement IA.14;
- Method(s) used to determine the fuel oil trace compound content and flashpoint; and
- Signature of the fuel supplier.

### *(e) Maintenance and repair of insignificant emission units*

University of Washington shall use good industrial practices to maintain insignificant emission units and equipment[2] not listed in this permit. For such equipment, University of Washington shall also promptly repair defective equipment. Good industrial practices may include, but are not limited to, 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.

### *(f) Recordkeeping, campus-wide general requirements*

University of Washington shall maintain the following:

1. Records of required monitoring information that include the following if applicable:
    i) The date, place as defined in the permit, and time of sampling or measurements;
    ii) The date(s) analyses were performed;
    iii) The company or entity that performed the analyses;

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2 *Puget Sound Clean Air Agency Regulation I, Section 1.07(s) states, "EQUIPMENT means any stationary or portable device or any part thereof that emits or may emit any air contaminant into the atmosphere."*

iv) The analytical techniques or methods used;

v) The results of such analyses; and

vi) The operating conditions existing at the time of sampling or measurement.

2. Records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. [WAC 173-401-615(2)(b), 11/4/1993]

3. Records of all monitoring data and support information required by this permit shall be retained by University of Washington for a period of five years from the date of the monitoring, sample, measurement, record, 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), 11/4/1993]

4. University of Washington shall document all inspections, tests and other actions required by the O&M Plan and Section II.A of this permit, including who conducted the inspection, tests or other actions; and the date and the results of the inspection, tests or other actions including corrective actions. All such records shall be signed and dated. University of Washington 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)(6), 9/10/1998]

5. Records for all complaints received concerning odor, fugitive emissions or nuisance relating to Section II of this permit must also contain the following information:

i) Date and time of the complaint,

ii) Name of the person complaining, if known,

iii) Nature of the complaint, and

iv) Date, time and nature of any corrective action taken.

[WAC 173-401-615(2)(a), 11/4/1993], [Puget Sound Clean Air Agency Regulation I, Section 7.09(b)(6), 9/10/1998]

### 2. Monitoring, Maintenance & Recordkeeping Requirements for Emission Units

#### *(a) Fuels that are permitted to be fired at the boilers*

University of Washington shall fire, in the Power Plant boilers, only natural gas or low sulfur oil that meets the definition for "very low sulfur" or "distillate" oil (40 CFR 60.41b), with boiler

specific fuel conditions specified below in II.A.2(c) and (d).

University of Washington shall receive, for use in the boilers, only new (unused), very low sulfur, distillate fuel oil, or other fuels that comply with the requirements of No. 2 diesel fuel but contain less than 0.05% sulfur, and shall maintain records of the type of all fuel oil received by the facility. University of Washington shall obtain and maintain fuel oil specifications from each fuel oil supplier that shall certify the fuel oil delivered by that supplier contains no used oil.

### *(b) Fuel permitted to be fired at the crematory*

University of Washington shall fire only pipeline quality natural gas to facilitate combustion of remains in the crematory.

### *(c) Distillate oil sulfur content, Boiler No. 4*

University of Washington shall receive no fuel oil with sulfur content greater than 0.5% to any tank that can supply fuel to Boiler No. 4. University of Washington shall maintain a copy of the current fuel supply contract that shall specify no greater than 0.5% maximum sulfur content, along with fuel receipts, at the Facilities Services Department. University of Washington is only required to insure sulfur content of fuel is no greater than 0.5%, but may elect to assure that fuel oil content is no greater than 0.05%. Depending upon sulfur content of fuel oil, University of Washington shall utilize one of the following monitoring procedures for sulfur dioxide:

***If sulfur content is greater than 0.05 but no greater than 0.5% (very low sulfur oil as defined in 40 CFR 60.41b):*** Whenever fuel oil is delivered to Boiler No. 4, University of Washington shall collect a sample of the new fuel oil in an as-fired condition at the inlet to Boiler No. 4 and analyze the fuel oil for sulfur and heat content according to Method 19. Method 19 specifies methods and procedures in ASTM D129-64, D1552-83, or D4057-81 for determination of sulfur content of each "lot" of fuel oil, and specifies a "lot size" of one shipment. [40 CFR 60.47b(b), 5/7/1990]

***If oil sulfur content is no greater than 0.05% (distillate oil as defined in 40 CFR 60.41b):*** University of Washington shall obtain and maintain at the Facilities Services Department receipts from the fuel supplier that certify that the oil meets the definition of distillate oil (maximum sulfur content 0.05%). For the purposes of this section, the oil does not need to meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Puget Sound Clean Air Agency and the EPA Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the reporting period [40 CFR 60.47b(b), 5/7/1990], [40 CFR Part 60.49b(r), 3/13/2000].

### *(d) Distillate oil sulfur content, Boiler No. 7*

University of Washington shall receive no fuel oil with sulfur content greater than 0.05% to any tank that can supply fuel to Boiler No. 7. University of Washington shall obtain and maintain at the Facilities Services Department receipts from the fuel supplier that certify that the oil meets

the definition of distillate oil (maximum sulfur content 0.05%). For the purposes of this section, the oil does not need to meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Puget Sound Clean Air Agency and the EPA Administrator certifying that only distillate oil meeting this definition was combusted in the affected facility during the reporting period [40 CFR Part 60.49b(r), 3/13/2000].

### *(e) Emissions*

Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined in accordance with performance tests established by 40 CFR 60.8, unless otherwise specified in 40CFR 60 subpart Db. [40 CFR 60.11(a), 2/24/1997]

Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e), 2/6/2001].

#### (1) Opacity, Boiler No. 4 and Boiler No. 7 stacks

COMS shall complete a minimum of one cycle of sampling and analyzing each successive 10-second period and one cycle of data recording for each successive 6-minute period [40 CFR 60.13(e)(1), 2/6/2001].

University of Washington shall check zero (0% to 20% of span value) and span (50% to 100% span value unless a different span value is required in a specific NSPS subpart) calibration drifts of continuous opacity monitoring systems (COMS) at least once daily in accordance with the O&M Plan. All maintenance and calibration procedures shall be recorded in a log that shall be available for inspection. Zero and span shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds 4%. Optical surfaces shall be cleaned whenever the cumulative automatic zero compensation exceeds 4% opacity. COMS shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter to produce a known obscuration of the light beam and a method for a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo-detector assembly. [40 CFR 60.13(d)(1), 2/6/2001]

COMS shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments, and shall complete a minimum of one cycle of sampling and analyzing each successive 10-second period and one cycle of data recording for each successive 6-minute period. [40 CFR 60.13(e)(1), 2/6/2001]

**(2) Opacity, Boiler No. 4**

University of Washington shall install, calibrate and maintain a continuous opacity monitoring system (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system [40 CFR 60.48b(a), 4/10/2001]. University of Washington may utilize the opacity meter that is currently installed on the main stack breeching provided that unit is calibrated and maintained in accordance with the requirements of Puget Sound Clean Air Agency Regulation I, Article 12 and 40 CFR 60.13.

**(3) Opacity, Boiler No. 7**

University of Washington shall install, calibrate, maintain and operate a continuous opacity monitoring system (COMS) for measuring the opacity of emissions on the No. 7 Boiler stack that complies with Puget Sound Clean Air Agency Regulation I, Article 12 and 40 CFR 60.13 [40 CFR 60.48b(a), 4/10/2001], [Order of Approval No. 7061(5), 8/09/2001].

**(4) Opacity, Boiler No. 6**

The University of Washington shall utilize the opacity meter on the breeching to the Power Plant combined stack to investigate and take necessary corrective action with Boiler No. 6. Whenever opacity from the Power Plant combined stack as measured by the opacity meter exceeds 10%, University of Washington shall, as soon as possible, but no later than within 24 hours of the initial observation, investigate operating conditions of Boiler No. 6 and, if the opacity increase is found to be due to Boiler No. 6, take any necessary corrective action until the visible emissions are reduced to 10% or less or, alternatively, shut down Boiler No. 6 until it can be repaired. If University of Washington elects to calibrate and maintain the opacity meter that is currently installed on the main stack breeching in accordance with the requirements of 40 CFR 60.13 and Puget Sound Clean Air Agency Regulation I, Section 12.03, the 10% corrective action level may be increased to 20%.

**(5) Opacity, Crematory**

The University of Washington shall measure and record the opacity of emissions discharged to the atmosphere from the crematory stack using an opacity meter whenever that unit is in operation. The opacity meter used at the crematory does not have to meet the requirements of Puget Sound Clean Air Agency Regulation I, Article 12, but maintenance and operation shall be in accordance with manufacturer's requirements and good engineering practice for minimizing emissions. The opacity meter shall be equipped with an audible and visible alarm that alerts the operator whenever opacity measurements exceed 5%. Whenever the opacity from the crematory

stack as measured by the opacity meter exceeds 5%, University of Washington shall, as soon as possible, but not later than within 24 working hours, take corrective action until the visible emissions are reduced to 5% or less or, alternatively, record the opacity using Department of Ecology Reference Method 9A or a COMS meeting the requirements of Puget Sound Clean Air Agency Regulation I, Article 12. University of Washington shall shut down the crematory if the problem cannot be corrected within 24 working hours of identification.

### (6) $SO_2$, Boiler No. 4 and Boiler No. 7 stacks

University of Washington shall calculate total $SO_2$ emissions from the Power Plant for the previous 12 calendar months, based on the sulfur content of the fuels burned.

For natural gas, $SO_2$ emission rate for each month shall be calculated for each boiler by the following formula[3]:

$$\_\_\_\_\_ \frac{ft^3}{month} n.g. \times \frac{2000\,gr\,S}{1{,}000{,}000\,ft^3\,n.g.} \times \frac{1\,lb}{7{,}000\,gr} \times \frac{1\,mole\,SO_2}{1\,mole\,S} \times \frac{64.06\,\frac{lb}{mole\,SO_2}}{32.07\,\frac{lb}{mole\,S}} \times \frac{1\,ton}{2{,}000\,lb} = \_\_\_\_\_ \frac{ton}{month} SO_2$$

$$\_\_\_\_\_ \frac{ft^3}{month} n.g. \times 2.85 \times 10^{-10}\,\frac{ton\,SO_2}{ft^3\,n.g.} = \_\_\_\_\_ \frac{ton}{month} SO_2$$

For distillate oil, $SO_2$ emission rate for each month shall be calculated by the following formula[4]:

$$\_\_\_\_\_ \frac{gallons}{month} oil \times 157\,\frac{lb\,SO_2}{1{,}000\,gallons\,oil} \times \%S \times \frac{1\,ton}{2{,}000\,lb} = \_\_\_\_\_ \frac{ton}{month} SO_2$$

*note: if fuel oil contains* 0.05 *percent sulfur, use* 0.05 *for %S in formula*

Add the results from the above formulas, if oil and natural gas are burned on any given month.

### (7) NOx, Boilers No 4 and No. 7

University of Washington shall install and have operational all required CEMS prior to conducting performance tests under 40 CFR 60.8 at all NSPS facilities. Verification of operational status shall, at a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device [40 CFR 60.13(b), 2/6/2001].

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3 *According to Section 1.4-3 of AP-42* (Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I: Stationary Point and Area Sources, US Environmental Protection Agency, Research Triangle Park, NC, January, 1995, EPA), *natural gas contains approximately 2000 grains of sulfur per million cubic feet*

4 *Emission factor taken from Table 1.3-1 of Section 1.3-11 of AP-42*

All CEMS other than COMS shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period [40 CFR 60.13(e)(2), 2/12/199].

University of Washington shall reduce all CEMS data to one-hour averages calculated from four or more data points equally spaced over each one-hour period. Data recorded during periods of CEMS breakdown, repair, calibration checks and zero and span adjustments shall not be included in the data averages. An arithmetic or integrated average of all data may be used to calculate average emission rates. All excess emissions[5,6] shall be converted into lb/MMBtu using the procedure at the bottom of this section. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit. [40 CFR 60.13(h), 2/6/2001].

University of Washington shall check zero (0% to 20% of the 500 ppm span value) and span (50% to 100% of 500 ppm span value) calibration drifts of CEMS at least once daily in accordance with the O&M Plan. All maintenance and calibration procedures shall be recorded in a log that shall be available for inspection. Zero and span for all CEMS other than COMS shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds 5% [40 CFR 60.13(d)(1), 2/6/2001].

University of Washington shall employ CEMS emitted by Boilers No. 4 and No. 7 for determining compliance with $NO_X$ emission limits [40 CFR 60.48b(a), 4/10/2001]. The CEMS measuring $NO_X$ emitted by Boiler No. 7 shall comply with Puget Sound Clean Air Agency Regulation I, Article 12 and 40 CFR 60.13 [Order of Approval No. 7106(5), 9/26/1995].

University of Washington shall employ and record the output of CEMS on the Boiler No. 4 stack for measurement of $NO_X$ and $O_2$ [Order of Approval No. 6206(7), 9/26/1995], [Puget Sound Clean Air Agency Reg I: 12.02(c), 12.03, 12.04, all 8/10/1989], [40 CFR 60.48b(b), 4/10/2001]. Each CEMS shall meet the requirements of 40 CFR 60, Appendix B and Article 12 of Puget Sound Clean Air Agency Regulation I [Order of Approval No. 6206(8), 9/26/1995]. University of Washington shall employ and record the output CEMS on the Boiler No. 7 stack for measurement of $NO_X$ and $O_2$ [Order of Approval No. 7061(5), 8/09/2001], [Puget Sound Clean Air Agency Reg I: 12.02(c), 12.03, 12.04, all 8/10/1989]. Each CEMS shall meet the requirements of 40 CFR 60, Appendix B and Article 12 of Puget Sound Clean Air Agency

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5 *For the purposes of 40 CFR 60.48b(g)(1), which applies to Boiler No. 4, excess emissions are defined as any calculated 30-day rolling average $NO_X$ emission rate, as determined under 40 CFR 60.46b(e), which exceeds the applicable emission limit in 40 CFR 60.44b(a) and (i).*

6 *For the purposes of 40 CFR 60.46(g)(3), which applies to Boiler No. 7, excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the standards under 40 CFR 60.44(a)(1) & (2).*

Regulation I [Order of Approval No. 7061(6), 8/09/2001].

University of Washington shall operate required CEMS and shall record data during all periods of operation except for during CEMS breakdowns and repairs. Data is to be recorded during calibration checks and zero and span adjustments [40 CFR 60.48b(c), 4/10/2001].

University of Washington shall follow the procedures under 40 CFR 60.13 for installation, evaluation, and operation of the CEMS [40 CFR 60.48b(e), 4/10/2001].

The span value for the CEMS measuring $NO_X$ shall be 500 ppm [40 CFR 60.48b(e)(2) & (3), 4/10/2001].

When $NO_X$ data are not obtained due to CEMS breakdowns, repairs, calibration checks and zero and span adjustments, University of Washington shall use Method 7E or other approved reference methods to provide emissions data for a minimum of 75% of the operating hours in each steam generating unit operational day, in at least 22 out of 30 successive steam unit generating unit operating days [40 CFR 60.48b(f), 4/10/2001].

Annual relative accuracy test audits (RATA) shall include emission measurements to verify compliance with $NO_X$ in Order of Approval No. 7061(9) [EU-3.22] and (10) [EU-3.23], and, results of the RATA shall be calculated in pounds per million Btu on a dry basis, corrected to 3% $O_2$ [Order of Approval No. 7061(6), 8/09/2001].

University of Washington shall compute ton/yr and lb/MMBtu $NO_X$, emission rates using procedures from 40 CFR 60 Appendix A Reference Method 19. There are several alternative procedures in Method 19 by which to do this, to provide for instances whereupon the pollutant and/or oxygen content of the exhaust stream has been measured on a wet basis. University of Washington shall use the method that applies when all gases have been measured on a dry volumetric basis. The calculations may be automated as part of the CEMS software if the formulas and procedures are kept on record available for review by Puget Sound Clean Air Agency. The basic procedure is listed below:

1) Begin with emissions of $NO_X$ in parts per million (ppmdv) and $O_2$ content in percent, on a dry volumetric basis, of the exhaust stream on an hourly average.

2) Refer to the "Conversion Factors for Concentration" table in Section 2 of Reference Method 19 to compute value for $C_d$. Multiply $NO_X$ ppmdv by $1.194\times10^{-7}$ to obtain $NO_X$ lb/dscf on an hourly average. *Note that this factor is equal to molecular weight of the pollutant divided by* $10^6$*, and then divided by* 385.3 $ft^3$ *per mole.*

3) Refer to Table 19-1 of Reference Method 19, "F-Factors for various fuels" to obtain the appropriate $F_d$ factor in dscf/MMBtu for each fuel burned during the hours corresponding to the lb/dscf values calculated above. For natural gas, $F_d$ is equal to 8,710 dscf/MMBtu. For oil, $F_d$ is equal to 9,190 dscf/MMBtu.

4) Use equation 19-16 of Reference Method 19 to compute the $F_d$ Factor if a combination of fuels is burned.

5) Obtain the value $E$ in pounds of $NO_X$ per million Btu of heat input for each hour of Boiler No. 4 operation by the use of Equation 19-1 of Method 19 as follows:

$$E = C_d F_{dng} \left[ \frac{20.9}{20.9 - \%O_{2d}} \right]$$

Check each hourly value $E$ for compliance with hourly lb/MMBtu emission limits.

6) Multiply each hourly $E$ for $NO_X$ by the cumulative heat input to Boiler No. 4 in MMBtu/hr for each corresponding hour of combustor operation to get pounds of $NO_X$ for each hour of boiler operation.

7) Add up pounds of $NO_X$ for the previous 12 months, divide by 2,000, and check against Order of Approval No. 7061 Condition No. 7(b) ton-per-year emission limits.

8) Include all measurements and calculations in annual RATA.

**(8) CO, Boiler No. 7 stack**

University of Washington shall compute lb/hr CO emission rates using CO ppm concentrations from the most recent Reference Method 10 or 10A source test and procedures from 40 CFR 60 Appendix A Reference Method 19 as described above in Section II.A.2(e)(7), except that the molecular weight of CO shall be substituted for that of $NO_X$ as follows:

1) Begin with emissions of CO in parts per million (ppmdv) and $O_2$ content in percent, on a dry volumetric basis, of the exhaust stream on an hourly average.

2) Refer to the "Conversion Factors for Concentration" table in Section 2 of Reference Method 19 to compute value for $C_d$. Multiply CO ppmdv by $7.269 \times 10^{-8}$ to obtain CO pounds per standard cubic feet (lb/dscf) on an hourly average. *Note that this factor is equal to molecular weight of the pollutant divided by* $10^6$*, and then divided by* 385.3 $ft^3$ *per mole.*

3) Follow the procedure in Section II.A.2(e)(7) above, $NO_X$, Boilers No 4 and No. 7, down to step 6), substituting Boiler No. 7 CO in place of $NO_X$, then calculate tons per year by adding up the pounds of CO emitted for the previous calendar year, then check against Order of Approval No. 7061(7)(c) [EU-3.26].

### (9) Spray Coating Booths

University of Washington shall install and maintain a pressure differential gauge on each spray coating booth dry filter exhaust system. The gauge shall be mounted where it is readily viewable by the spray booth operator, and the range of the gauge shall be established using the manufacturer's recommendations, or the low end of the range will be no less than 50 percent of the clean filter pressure drop and the high end based on the operational experience at a pressure drop value below that at which the filters will fail. University of Washington shall inspect spray coating booth, exhaust system, and emission controls once each work shift that painting is taking place in that booth as follows:

- Check dry exhaust filters and water curtain for full coverage (no gaps in water curtain; no gaps, openings, or tears in filters),
- Check for dry filter clogging,
- Check dry filtration systems for proper operation of the pressure differential gauge and for acceptable range marking,
- Check to ensure that all VOC-containing material storage containers and tanks are kept closed except for when materials are being added, mixed or removed.
- Check to ensure that any containers used for solvent and paint wiping material disposal are closed except for when such material is being added or removed.

University of Washington shall correct any problems identified during scheduled inspections or at any other time as soon as possible, but not later than the start of the next work shift after identification or shut down the unit or activity until it can be repaired.

Prior to applying surface coatings, University of Washington shall check to ensure that the spray coating operation is operated and maintained in accordance with IV.D below.

### (10) ECH Horizontal Fume Scrubber

University of Washington shall perform inspections, as described below, of the ECH horizontal fume scrubber with mist eliminator exhaust system once each work shift that the fume scrubber is operated:

- Check system ductwork for signs of cracking or holes,
- Check for scrubber liquid flow,
- 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 0.5 to 2.5 inches water [Order of Approval No. 5924(4), 11/8/1995].

- Inspect pH gauge reading for operation in the proper range, acceptable ranges that shall be clearly marked on or nearby the gauge. The acceptable pH range shall be 6.5 to 11 [Order of Approval No. 5924(5), 11/8/1995].

- Check for proper fan operation, and

- Check for evidence of particulate emissions.

University of Washington shall correct any problems identified during scheduled inspections or at any other time as soon as possible, but not later than the start of the next work shift after identification or shut down the unit or activity until it can be repaired.

### (11) Gasoline Station Monitoring

University of Washington shall visually inspect the Stage 1 system after each product delivery. Any equipment found to be defective (e.g., loose caps or adapters, stuck poppet valves, damaged gaskets) shall be repaired or replaced as soon as possible, but no later than seven days after the inspection. [Puget Sound Clean Air Agency Regulation II, Section 2.07(b)(2), 12/09/1999]

Stage 2 vapor recovery compliance certification testing shall occur at frequencies specified in CARB executive orders. Notification to the Puget Sound Clean Air Agency shall be submitted at least five days in advance of the test. Results shall be kept for two years on site. If, as a result of compliance testing, repairs to still operating Stage 2 vapor recovery systems are required, they must take place within 30 days of compliance certification testing, unless the Control Officer grants an extension. [Puget Sound Clean Air Agency Regulation II, Section 2.07(c)(4) & (d), 12/09/1999].

## *(f) Recordkeeping for Boilers No. 4 and No. 7*

University of Washington shall maintain records of occurrence and duration of any startup, shutdown, or malfunction at the facility; any malfunction of control equipment; and any periods a monitoring device or system is inoperative [40 CFR 60.7(b), 2/12/1999].

University of Washington shall maintain, these records for at least two years in permanent form, suitable for inspection of all measurements (including manual source tests, CEMS for gaseous emissions and opacity); all monitoring system evaluations, calibration checks, and maintenance; and all other information required by an NSPS [40 CFR 60.7(f), 2/12/1999], [40 CFR 60.49b(f), 3/13/2000], [40 CFR 60.49b(o), 3/13/2000].

University of Washington shall record and maintain records of the amounts of each fuel combusted during each day. Calculate the annual capacity factor[7] individually for distillate oil

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[7] *Annual capacity factor is the ratio between actual heat input to a steam generating unit from the fuels listed 40 CFR 60.42b(a), 60.43b(a), or 60.44b(a) as applicable, during a calendar year and the potential heat input to the generating unit had it been operating*

No. 2 and natural gas. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month [40 CFR Part 60.49b(d), 3/13/2000].

University of Washington shall maintain fuel supplier receipts required under II.A.2(c) at the Facilities Services Department [40 CFR Part 60.49b(r), 3/13/2000].

When changing fuels or operating modes, University of Washington shall maintain separate monitoring records to demonstrate compliance with appropriate limits of Order of Approval No. 7061(9) and (10) [Order of Approval No. 7061(9 and 10), 8/09/2001].

***(g) NSPS Subpart Db $NO_X$ recordkeeping requirements (Boilers No. 4 and No. 7)***

Maintain records of the following information for Boiler No. 4 and Boiler No. 7 for each day that the respective boiler generates steam:

(a) Calendar date.

(b) The measured average hourly nitrogen oxides emission rates (expressed as $NO_2$) in lb/million Btu heat input.

(c) The 30-day average nitrogen oxides emission rates (lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(d) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of 0.20 lb/MMBtu heat input, with the reasons for such excess emissions as well as a description of corrective actions taken.

(e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(g) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(h) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

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*for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.*

(i) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

[40 CFR 60.49b(g), 3/13/2000], [40 CFR 60.49b(i), 3/13/2000]

Quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter [40 CFR 60.49b(w), 3/13/2000].

University of Washington is still required to report all excess emissions and other deviations to the Puget Sound Clean Air Agency on a monthly basis, as required under V.P.1 below.

[Order of Approval No. 7061(3), 8/09/2001]

### 3. Quality Assurance Requirements for Continuous Monitors

#### *(a) Federally enforceable QA Requirements*

University of Washington shall meet the following quality assurance requirements until such time that the EPA adopts the April 9, 1998 version of Regulation I, Article 12 into the SIP:

(a) All continuous monitors shall meet the performance specifications contained in 40 CFR Part 60 Appendix B [40 CFR 60.13(a), 2/6/2001] [Puget Sound Clean Air Agency Reg I: 12.03(a), 4/9/1998]. Where there is no EPA performance specification, the monitor shall meet a performance specification established by the Puget Sound Clean Air Agency [Puget Sound Clean Air Agency Reg I: 12.03(a), 4/9/1998].

(b) University of Washington shall install CEMS such that representative measurements or emissions or process parameters are obtained [40 CFR 60.13(f), 2/6/2001].

(c) All temperature monitors shall be accurate to within 5° F.

(d) All devices for monitoring pressure loss through a scrubber shall be accurate within one inch of water.

(e) All devices for monitoring scrubber liquid supply rate shall be accurate within 5 percent of the design liquid supply rate.

(f) All gaseous continuous emission monitors shall be maintained in accordance with the requirements of 40 CFR Part 60, Appendix F, or alternate requirements approved by the Puget Sound Clean Air Agency [40 CFR 60.13(a), 2/6/2001] [Puget Sound Clean Air Agency Reg I: 12.03(e), 4/9/1998].

(g) All continuous opacity monitors shall be maintained in accordance with the EPA "Recommended Quality Assurance Procedures for Opacity Continuous Emission Monitoring Systems" (EPA 340/1-86-010).

(h) All temperature, scrubber pressure drop and liquid supply rate monitors shall be maintained in accordance with the manufacturer's recommendations.

(i) Continuous monitoring data shall be considered invalid if any of the following conditions occur:

1) The monitor is not operated in accordance with the requirements of Sections 12.03(a) through (g);

2) The monitor is being zeroed, spanned, or is otherwise inoperative;

3) An hour contains less than 75 percent valid data readings; or

4) A day contains less than 90 percent valid hours when the source is in operation.

[Puget Sound Clean Air Agency Reg I: 12.03, 8/10/1989] *See V.O Data recovery for the additional requirement of 90 percent valid hours in a month.*

***(b) Non-federally enforceable QA requirements***

*(until such time that the EPA adopts the 4/9/1998 version of Regulation I, Article 12 into the SIP)*

University of Washington shall meet the following quality assurance requirements:

University of Washington shall install a continuous emission monitoring system that meets the performance specification in 40 CFR 60, Appendix B in effect at the time of its installation, and shall operate this monitoring system in accordance with the quality assurance procedures in Appendix F of 40 CFR Part 60 in effect July 1, 1997 [40 CFR 60.13(a), 2/6/2001], and the U.S. Environmental Protection Agency's "Recommended Quality Assurance Procedures for Opacity Continuous Emission Monitoring Systems" (EPA 340/1-86-010). All relative accuracy tests shall be subject to the provisions of Puget Sound Clean Air Agency Regulation I, Section 3.07 [Puget Sound Clean Air Agency Reg I: 12.03(c) & (g), 4/9/1998].

All continuous monitoring systems shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used [40 CFR 60.13(f), 2/6/2001].

## *B. Operation and Maintenance (O&M) Plan Requirements*

### 1. General Campus-Wide O&M Plan

University of Washington's O&M Plan shall include procedures specifying how University of Washington will assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II and III and how University of Washington will carry out the Minimum Monitoring and Maintenance provisions specified in Section II.A 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 the repairs can be completed and taking measures to prevent 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. University of Washington shall use the results of the inspections required by this permit in its quarterly review of the O&M Plan. The specific provisions of the O&M Plan, other than those required by specific requirements in this permit and monitoring activities required under Section II.A, shall not be deemed part of this permit.

### 2. Dust Collection Equipment and Baghouse O&M Plan

University of Washington's O&M Plan shall include specific procedures for assuring continuous compliance of dust collection and control equipment (hoods, ducting, cyclones and baghouses) with Puget Sound Clean Air Agency Regulations. The O&M Plan shall describe monthly inspection procedures required under II.A.1(c), as well as specific corrective actions. All dust collection and baghouse systems on the University of Washington Seattle campus shall be covered in this O&M Plan including, but not limited to, those located in the following buildings and areas:

- Gould Hall woodworking area;
- Plant Services Carpentry Shop; and
- Plant Services area cyclones and shop exhaust system.

### 3. Insignificant Emission Units

For insignificant emission units, refer to the requirements stated in Section. II.A.1(e) above of this permit.

## *C. Reporting*

All reporting requirements are provided in Section V.P below.

# III. PROHIBITED ACTIVITIES

University of Washington is prohibited from conducting, causing, or allowing the following activities:

### *A. Adjustment for Atmospheric Conditions*

Varying the rate of emissions of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations. [WAC 173-400-205, 8/20/1993]

### *B. Open Burning*

University of Washington shall not conduct open burning during any stage of an air pollution episode or period of impaired air quality and shall not conduct any open burning other than the following types:

1. Fires consisting solely of charcoal, propane, natural gas, or wood used solely for the preparation of food, and

2. Fires for instruction in the methods of fighting fires, provided that the person conducting the training fire complies with Puget Sound Clean Air Agency Regulation I, Section 8.07.

[Puget Sound Clean Air Agency Regulation I, Sections 8.02(a) and 8.06, 10/8/1998] [WAC 173-425-020(1), 1/1/1993; WAC 173-425-050(1), 1/1/1993; RCW 70.94.743, 1998 c68 p1 and RCW 70.94.775(2), 1995 c362 p2 State/Puget Sound Clean Air Agency only]

University of Washington shall not cause or allow the setting of open fires other than in the course of weed abatement, fire fighting instruction or agricultural activities, after first obtaining a fire permit from the Puget Sound Clean Air Agency or a local delegated permitting authority [RCW 70.94.650, 1998 c43 p1 State/Puget Sound Clean Air Agency only].

University of Washington shall not cause or allow any outdoor fire:

1. To contain any of the following: garbage, treated wood, plastics, rubber products, animals, asphaltic products, waste petroleum products; paints, or any substance, other than natural vegetation which normally emits dense smoke or obnoxious odors.

2. During a forecast, alert, warning or emergency condition as defined in RCW 70.94.715 or impaired air quality condition as defined in RCW 70.94.473.

[RCW 70.94.775, 1998 c199 p101 State/Puget Sound Clean Air Agency only].

### C. Solid Fuel Burning Devices

University of Washington shall not burn in any residential solid fuel burning device any of the following: garbage, treated wood, plastics, rubber products, animals, asphaltic products, waste petroleum products; paints, or any substance, other than properly seasoned fuel wood, which normally emits dense smoke or obnoxious odors. [WAC 173-433-120, 9/17/1990], RCW 70.94.477, 1995 c 205p2 State/Puget Sound Clean Air Agency only]

University of Washington shall not operate a residential solid fuel burning device in any building which has an adequate source of heat (other than the solid fuel burning device) during an air pollution episode or period of impaired air quality, unless the solid fuel burning device is certified in accordance with RCW 70.94.457 or is a certified or exempt pellet stove and the period of impaired air quality is "first stage." [Puget Sound Clean Air Agency Regulation I, Section 13.05, 9/26/1991; and WAC 173-433-150, 9/17/1990], [RCW 70.94.473, 1998 c 342p8 State/Puget Sound Clean Air Agency only]

### D. Concealment

University of Washington shall not 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 an air contaminant that would otherwise violate Puget Sound Clean Air Agency Regulation I, Article 9 or Chapter 173-400 WAC. [Puget Sound Clean Air Agency Regulation I, Section 9.13(a), 6/9/1988; WAC 173-400-040(7), 8/20/1993; and 40 CFR 60.12]

### E. Masking

University of Washington shall not cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant that causes detriment to health, safety or welfare of any person or conceals or masks an emission of an air contaminant that would otherwise violate Regulation I, Article 9 or Chapter 173-400 WAC. [Puget Sound Clean Air Agency Regulation I, Section 9.13(b), 6/9/1988; and WAC 173-400-040(7), 8/20/1993]

### F. Ambient Standards

University of Washington shall not cause or allow the emission of air contaminants in sufficient quantity as to exceed any ambient air quality standard in Puget Sound Clean Air Agency Regulation I Section 11.01. [Puget Sound Clean Air Agency Regulation I, Section 11.01(b), 4/14/1994]

### G. New Source Performance Standards

University of Washington shall not cause or allow the operation of any source in violation of any provisions of Title 40, Part 60, of the Code of Federal Regulations in effect July 1, 1999. [Puget Sound Clean Air Agency Regulation I, Section 6.11, 7/13/2000], [WAC 173-400-115, 11/23/1998]

# IV. ACTIVITIES REQUIRING ADDITIONAL APPROVAL

University of Washington shall file notification and obtain the necessary approval from the Puget Sound Clean Air Agency before conducting any of the following:

### *A. New Source Review.*

University of Washington shall not construct, install, establish, or modify an air contaminant source, except those sources that are excluded by Puget Sound Clean Air Agency Regulation I, Section 6.03(b), unless a "Notice of Construction and Application for Approval" has been filed with and approved by the Puget Sound Clean Air Agency. [Puget Sound Clean Air Agency Regulation I, Section 6.03, 7/8/1999] [WAC 173-460-110, 8/20/1993; RCW 70.94.152, 1996 c 67p1, 1996 c 29p1 State/Puget Sound Clean Air Agency only].

University of Washington shall, within 30 days of completion of installation or modification of an air contaminant source required to go through new source review, file a Notice of Completion with the Puget Sound Clean Air Agency. Each notice of completion shall be submitted on a form provided by the Puget Sound Clean Air Agency and shall specify the date upon which the operation of the source has commenced or will commence [Puget Sound Clean Air Agency Regulation I, Section 6.09, 4/14/1994].

### *B. Replacement or Substantial Alteration of Emission Control Technology.*

University of Washington shall file a Notice of Construction and Application for Approval according to WAC 173-400-114 with the Puget Sound Clean Air Agency before replacing or substantially altering any emission control technology installed at the facility. [Puget Sound Clean Air Agency Regulation I, Section 6.03, 7/8/1999] [WAC 173-400-114, RCW 70.94.153, 1991 c 199p303 State/Puget Sound Clean Air Agency only]

### *C. Asbestos.*

(a) University of Washington shall comply with 40 CFR 61.145 and 61.150 when conducting renovation or demolition activities at the facility. [40 CFR 61.145 and 61.150]

(b) University of Washington shall comply with Puget Sound Clean Air Agency Regulation III, Article 4 when conducting any asbestos project, renovation or demolition activities at the facility. [Puget Sound Clean Air Agency Regulation III, Article 4, 7/13/2000]

### *D. Spray Coating.*

University of Washington shall comply with Puget Sound Clean Air Agency Regulation I, Section 9.16 as follows:

(a) **Applicability**. This section applies to spray-coating operations at facilities subject to Article 5 (Registration), Article 6 (New Source Review), or Article 7 (Operating Permits) of this regulation, where a coating that protects or beautifies a surface is applied with spray-coating equipment.

(b) **Exemptions**. The following activities are exempt from the provisions of Sections 9.16(c) and (d) of this regulation. Persons claiming any of the following spray-coating exemptions shall have the burden of demonstrating compliance with the claimed exemption.

1) Application of architectural or maintenance coatings to stationary structures (e.g., bridges, water towers, buildings, stationary machinery, or similar structures);

2) Aerospace coating operations subject to 40 CFR Part 63, Subpart GG. This includes all activities and materials listed in 40 CFR 63.741(f);

3) Use of high-volume, low-pressure (HVLP) spray guns when:

(A) spray-coating operations do not involve motor vehicles or motor vehicle components;

(B) the gun cup capacity is 8 fluid ounces or less;

(C) the spray gun is used to spray-coat less than 9 square feet per day per facility;

(D) coatings are purchased in containers of 1 quart or less; and

(E) spray-coating is allowed by fire department, fire marshal, or other government agency requirements.

4) Use of air-brush spray equipment with 0.5 to 2.0 CFM airflow and a maximum cup capacity of 2 fluid ounces;

5) Use of hand-held aerosol spray cans with a capacity of 1 quart or less; or

6) Indoor application of automotive undercoating materials using organic solvents having a flash point in excess of 100°F.

(c) **General Requirements for Indoor Spray-Coating Operations**. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating inside a structure, or spray-coating of any motor vehicles or motor vehicle components, unless the spray-coating is conducted inside an enclosed spray area. The enclosed spray area shall

employ either properly seated paint arresters, or water-wash curtains with a continuous water curtain to control the overspray. All emissions from the spray-coating operation shall be vented to the atmosphere through an unobstructed vertical exhaust vent.

(d) **General Requirements for Outdoor Spray-Coating Operations**. After January 1, 2000, it shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating outside an enclosed structure unless such spray-coating operations are approved in a notice of construction permit issued in accordance with Article 6 of this regulation. The following minimum requirements for outdoor spray-coating operations will be included in all such notice of construction permits:

1) Reasonable methods to confine overspray to the property where the spray-coating is being conducted shall be used (e.g., tarps, shrink wrap, mobile enclosure, or similar methods for control of overspray); and

2) High-transfer efficiency spray equipment that minimizes overspray shall be used (e.g., HVLP, low-volume, low-pressure (LVLP), electrostatic, or air-assisted airless). Airless spray equipment may be used where low viscosity and high solid coatings preclude the use of higher-transfer efficiency spray equipment.

[Puget Sound Clean Air Agency Regulation I, Section 9.16, 6/13/1991]

[Puget Sound Clean Air Agency Regulation I, Section 9.16, 7/8/1999] *State/Puget Sound Clean Air Agency only*

# V. STANDARD TERMS AND CONDITIONS

### *A. Duty to comply.*

University of Washington shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 70.94 RCW and, for federally enforceable provisions, a violation of the Federal Clean Air Act (FCAA). Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [Puget Sound Clean Air Agency Regulation I, Section 7.05, 10/28/1993, WAC 173-401-620(2)(a), 11/4/1993]

### *B. Permit actions.*

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by University of Washington 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), 11/4/1993]

### *C. Property rights.*

This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d), 11/4/1993]

### *D. Duty to provide information.*

University of Washington shall furnish to the Puget Sound Clean Air Agency, within a reasonable time, any information that the Puget Sound Clean Air Agency 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, University of Washington 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, University of Washington may furnish such records directly to EPA Region 10 along with a claim of confidentiality. The Puget Sound Clean Air Agency shall maintain the confidentiality of such information in accordance with RCW 70.94.205. [WAC 173-401-620(2)(e), 11/4/1993]

### *E. Permit fees.*

University of Washington shall pay fees as a condition of this permit in accordance with the Puget Sound Clean Air Agency Regulation I, Article 7. Failure to pay fees in a timely fashion shall subject University of Washington to civil and criminal penalties as prescribed in Chapter 70.94 RCW. [WAC 173-401-620(2)(f), 11/4/1993]

### F. Emissions trading.

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit. [WAC 173-401-620(2)(g), 11/4/1993]

### G. Severability.

If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable. [WAC 173-401-620(2)(h), 11/4/1993]

### H. Permit appeals.

This permit or any condition 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 and WAC 173-401-735. The provision for appeal in this section is separate from and additional to any federal rights to petition and review found under §505(b) of the FCAA. [WAC 173-401-620(2)(i) and WAC 173-401-735, 11/4/1993]

### I. Permit continuation.

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 under WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete permit application has been submitted. [WAC 173-401-620(2)(j), 11/4/1993]

### J. Federal enforceability.

All terms and conditions of this permit are enforceable by the EPA administrator and by citizens under the FCAA, in addition to being enforceable by the Puget Sound Clean Air Agency, except for those terms and conditions designated in the permit as not federally enforceable. [WAC 173-401-625, 11/4/1993]

### K. Inspection and entry.

Upon presentation of credentials and other documents as may be required by law, University of Washington shall allow the Puget Sound Clean Air Agency or an authorized representative to:

1) Enter University of Washington premises or where records must be kept under the conditions of this permit;

2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices or operations regulated or required under the permit; and

4) 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), 11/4/1993], [Puget Sound Clean Air Agency Regulation I, Section 3.05, 2/10/1994], [RCW 70.94.200 State/Puget Sound Clean Air Agency only]

### *L. Compliance requirements.*

University of Washington shall continue to comply with all applicable requirements with which the source is currently in compliance. University of Washington shall meet on a timely basis any applicable requirements that become effective during the permit term. [WAC 173-401-630(3), WAC 173-401-510(2)(h)(iii), 11/4/1993]

### *M. Compliance certifications.*

University of Washington shall submit a certification of compliance with permit terms and conditions once per year. The first such certification shall cover a one-year period commencing upon the date of issuance of this permit. Each certification shall include:

1) The identification of each term or condition of the permit that is the basis of the certification;

2) The compliance status;

3) Whether compliance was continuous or intermittent; and

4) The method(s) used for determining the compliance status of the source, currently and over the reporting period. These methods must be consistent with the permit Monitoring, Maintenance and Recordkeeping Methods.

All compliance certifications shall be submitted to EPA Region 10 and to the Puget Sound Clean Air Agency, at the following addresses, within 30 days after the close of the period covered by the certification:

Puget Sound Clean Air Agency
Attn.: Operating Permit Certification
1904 3rd Avenue, Ste 105
Seattle, Washington 98101

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

[WAC 173-401-630(5), 11/4/1993]

## *N. Compliance determination.*

### 1. Emission Testing

#### *(a) General*

For the purpose of determining compliance with an emission standard, the Puget Sound Clean Air Agency or Ecology may conduct testing of an emission unit or require University of Washington to have it tested. In the event the Puget Sound Clean Air Agency or Ecology conduct the test, University of Washington shall be given an opportunity to observe the sampling and to obtain a sample at the same time. [Puget Sound Clean Air Agency Regulation I, Section 3.05(b), 2/10/1994; WAC 173-400-105(4), 8/20/1993, 10/23/1998 State/Puget Sound Clean Air Agency only]

Testing of sources for compliance with emissions standards shall be performed in accordance with the Reference Test Methods identified in Section I of this permit, except where this permit indicates that a specific Reference Test Method is not needed or appropriate. [Puget Sound Clean Air Agency Regulation I, Section 3.07(a), 2/9/1995; 40 CFR 60.8(b), 2/12/1999]

University of Washington shall notify the Puget Sound Clean Air Agency in writing at least 2 weeks (14 days) prior to any compliance test and provide the Puget Sound Clean Air Agency an opportunity to review the test plan and to observe the test. [Puget Sound Clean Air Agency Regulation I, Section 3.07(b), 2/10/1994]

Unless otherwise specified, each performance test for pollutants other than opacity shall consist of three separate runs and compliance shall be determined from the arithmetic average of the three runs. 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 Puget Sound Clean Air Agency approval, be determined from the arithmetic average of the two other runs. [40 CFR 60.8(f), 2/12/1999], [WAC 173-401-615(1)(b) 11/4/1993], [Puget Sound Clean Air Agency Regulation I, Section 3.05(b), 2/10/1994]

University of Washington, if required by the Puget Sound Clean Air Agency to perform a compliance test, shall submit a 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.

[WAC 173-400-105(4), 10/14/1996 State/Puget Sound Clean Air Agency only; Puget Sound Clean Air Agency Regulation I, Section 3.05(b), 2/10/1994; and Puget Sound Clean Air Agency Regulation I, Section 3.07(c), 2/9/1995]

### *(b) Initial Compliance*

University of Washington shall conduct performance tests and submit a report of the results to the Puget Sound Clean Air Agency within 180 days of initial startup Boiler No. 7 [40 CFR 60.8(a), 2/12/1999].

University of Washington shall perform testing of NSPS facilities (Boilers No. 4 and No. 7) for compliance with emissions standards in accordance with the Reference Test Methods identified in Section I of this permit, except where this permit indicates that a specific Reference Test Method is not needed or appropriate [40 CFR 60.8(b), 2/12/1999].

University of Washington shall conduct performance testing of NSPS facilities under representative operating conditions. Operations of NSPS facilities during periods of startup, shutdown, and malfunction do not represent representative conditions for the purposes of determining compliance with NSPS emission limits [40 CFR 60.8(c), 2/12/1999].

University of Washington shall notify the Puget Sound Clean Air Agency in writing at least 30 days prior to any performance test at a NSPS facility. [40 CFR 60.8(d), 2/12/1999]

University of Washington shall provide sampling ports, safe sampling platforms, safe access to sampling platforms, and utilities for sampling and testing equipment required for all performance tests at all NSPS facilities [40 CFR 60.8(e), 2/12/1999].

Unless otherwise specified in the applicable subpart, the performance test at each University of Washington NSPS facility shall consist of three separate runs using the applicable test method. The arithmetic mean of the results of the three runs applies. If results of one run are unavailable, the arithmetic mean of the results of the other two runs may be accepted, subject to approval by the Puget Sound Clean Air Agency [40 CFR 60.8(f), 2/12/1999].

### *(c) Annual Testing of Ethylene Oxide Sterilizer*

University of Washington shall record the quantity of ethylene oxide consumed each year and shall conduct annual source tests of the ethylene oxide sterilizer in accordance with Section 3.07

of Regulation I to verify compliance with the emission performance standards in Conditions EU-5.3 and EU-5.4 [Puget Sound Clean Air Agency Reg III: 3.07(e), 1/9/1992].

#### 2. Continuous Emissions Monitoring

University of Washington shall not operate any equipment that is required to use a CEMS through an Order of Approval without the continuous monitoring of emissions in accordance with the requirements of Puget Sound Clean Air Agency Reg I: 12.03 and 12.04 as amended through August 10, 1989 [Puget Sound Clean Air Agency Reg I: 12.02(c), 8/10/1989].

#### 3. Credible Evidence

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of this permit, nothing 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 or procedure had been performed. [40 CFR 51.212, 2/24/1997; 40 CFR 52.12, 2/24/1997; 40 CFR 52.33, 2/24/1997; Puget Sound Clean Air Agency Reg I: 3.06; 10/08/1998]

### *O. Data recovery*

Except where an applicable requirement contains more stringent provisions, University of Washington shall recover valid monitoring and recordkeeping data for at least 90 percent of all periods over which data are averaged or, if no averaging is used, collected, during each month in which this permit requires monitoring of a process or parameter.

Except where an applicable requirement contains more stringent provisions, the University of Washington shall recover valid hourly monitoring data for at least 95% of the hours that the equipment required to be monitored is operated during each calendar month, except for during any period that the monitored process does not operate, or during periods of monitoring system breakdown, malfunction, repairs, calibration checks and acts of God deemed by the Control Officer to be unavoidable. In determining whether a monitoring failure was unavoidable, the Control Officer shall consider the following:

a) Whether the event was caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

b) Whether the event was of a recurring pattern indicative of inadequate design, operation, or maintenance; and

c) Whether University of Washington took immediate and appropriate corrective action in a manner consistent with good engineering practice for minimizing emissions.

The monitoring reports required by Section V.P shall include an explanation for any instance in which University of Washington failed to meet the data recovery requirements of this condition

for any monitored process or parameter. The explanation shall include the reason that the data was not collected and any actions that University of Washington will take to insure collection of such data in the future. [WAC 173-401-615(1)(b), 11/4/1993], [Puget Sound Clean Air Agency Reg I: 12.03, 4/9/1998]

Continuous monitoring data shall be considered invalid if any of the following conditions occur:

- The monitor is not operated in accordance with the requirements of Sections 12.03(a) through (g) (August 10, 1989 version);

  1) The monitor is being zeroed, spanned or is otherwise inoperative;

  2) An hour contains less than 75% valid readings; or

  3) A day contains less than 90% valid hours when the source is in operation.

[Puget Sound Clean Air Agency Reg I: 12.03, 8/10/1989]

### *P. Reporting.*

#### 1. Air Operating Permit Reporting Requirements

a) Any monitoring reports required by this permit to be submitted to the Puget Sound Clean Air Agency shall be submitted at least once every six months, or more frequently where required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [WAC 173-401-615(3)(a), 11/4/1993]

b) University of Washington shall report in writing to Puget Sound Clean Air Agency Operating Permit Certification 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. University of Washington shall maintain a contemporaneous record of all deviations. University of Washington 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) as soon as possible but no later than 12 hours after such a deviation is discovered. University of Washington shall report other deviations in writing to Puget Sound Clean Air Agency Operating Permit Certification on a monthly basis, no later than 30 days after the end of the month during which the deviation is discovered. University of Washington is not required to submit a monthly report for months during which there were no deviations, except that if there are no deviations for six consecutive months, University of Washington must report that there were no deviations within 30 days after the end of the six-month period. [WAC 173-401-615(3)(b), 11/4/1993]

c) University of Washington shall report to the Puget Sound Clean Air Agency any instances where it failed to promptly repair any defective equipment. [WAC 173-401-615(3)(b), 11/4/1993]

d) Any application form, report, or compliance certification that is submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required 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, 11/4/1993]

e) All required reports must be certified by a responsible official consistent with WAC 173-401-520. Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification needs 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. [WAC 173-401-615(3)(a), 11/4/1993]

## 2. Puget Sound Clean Air Agency Reporting Requirements

All reports required under this section shall be submitted the Puget Sound Clean Air Agency, at the following address:

Puget Sound Clean Air Agency
Attn.: Operating Permit Certification
1904 3rd Avenue, Ste. 105
Seattle, Washington 98101

### *(a) Annual Emission Inventory*

University of Washington shall report annually to the Puget Sound Clean Air Agency for those air contaminants that are emitted in amounts equal to or exceeding the following (tons per year) during the previous calendar year:

| | | |
|---|---|---|
| i) | Carbon monoxide (CO) emissions | 25 |
| ii) | Facility combined total of all toxic air contaminants (TAC) emissions | 6 |
| iii) | Any single toxic air contaminant (TAC) emissions | 2 |
| iv) | Nitrogen oxide ($NO_X$) emissions | 25 |
| v) | Particulate matter ($PM_{10}$) emissions | 25 |
| vi) | Particulate matter ($PM_{2.5}$) emissions | 25 |
| vii) | Sulfur oxide ($SO_X$) emissions | 25 |
| viii) | Volatile organic compounds (VOC) emissions | 25 |

Annual emissions rates shall be reported to the nearest whole ton per year for only those contaminants that equal or exceed the thresholds above. University of Washington shall submit to the Puget Sound Clean Air Agency any additional information required by WAC 173-400-105(1) or Puget Sound Clean Air Agency Regulation III, Section 1.11. [Puget Sound Clean Air Agency Regulation I, Section 7.09(a), 9/10/1998]

### *(b) Federally Enforceable CEMS Reporting Requirements*

University of Washington shall meet the following continuous emission monitor reporting requirements until such time that the EPA adopts the April 9, 1998 version of Regulation I, Article 12 into the SIP:

(a) Monitoring results for opacity shall be reduced to one-minute averages.

(b) Monitoring results for scrubber operation shall be reduced to one-hour averages in units consistent with the applicable operation standard.

(c) Monitoring results for gaseous pollutants shall be reduced to one-hour averages on a clock basis, or other time periods approved by Puget Sound Clean Air Agency, in units consistent with the applicable operation standard.

(d) Monitoring results for temperature shall be reduced to 15-minute averages.

(e) A chronological file shall be maintained (for a period of two years after the record was made and shall be available for Puget Sound Clean Air Agency review upon request) for each monitoring system which includes:

(1) All measurements from the monitoring system;

(2) All valid averages as calculated in this section;

(3) The cause, time period and magnitude of all emissions or operations that violate the applicable standards;

(4) The cause and time for any invalid data averages;

(5) Data and results of all performance tests and recalibrations;

(6) A record of any repairs, adjustments or maintenance to the monitoring system; and

(7) Any data necessary for conversion of the monitoring system data to units consistent with the applicable standards.

(f) The following information shall be reported to the Control Officer on a monthly basis within 30 days after the end of the month:

(1) The cause, time periods and magnitudes for all emissions or operations that violate the applicable standards and any corrective action taken;

(2) The cause, time periods and magnitudes of any bypass of the air pollution control equipment;

(3) The cause and time periods for any invalid hours;

(4) The results from all performance tests and recalibrations conducted during the month;

(5) The amount of fuel or refuse burned or the process weight charged to the equipment per day;

(6) The total monthly emissions of all monitored gaseous pollutants; and

(7) Any other additional information requested by the Puget Sound Clean Air Agency.

The report shall be submitted in a format approved by the Control Officer and shall be signed by the person exercising managerial responsibility over the operation of the equipment for which monitoring is required [Puget Sound Clean Air Agency Reg I: 12.04, 8/10/1989] [Order of Approval No. 6206(9)(c), 9/26/1995].

***(c) Non-federally enforceable CEMS Reporting Requirements***

*(until such time that the EPA adopts the 4/9/1998 version of Reg I:12 into the SIP)*

University of Washington shall submit a monthly report to Puget Sound Clean Air Agency within 30 days after the end of the month in which the data were recorded. This report shall include:

- The date, time period, magnitude (in the units of the standard) and cause of each emission that exceeded an applicable emission standard;
- The date and time of all actions taken to correct the problem, including any actions taken to minimize the emissions during the exceedance and any actions taken to prevent its recurrence;
- The number of hours that the equipment (required to be monitored) operated each month and the number of valid hours of monitoring data that the monitoring system recovered each month;
- The date, time period, and cause of each failure to meet the data recovery requirements of Section 12.03(b) and any actions taken to insure adequate collection of such data;

- The date, time period, and cause of each failure to recover valid hourly monitoring data for at least 90% of the hours that the equipment (required to be monitored) was operated each day;
- The results of all cylinder gas audits conducted during the month; and
- A certification of truth, accuracy, and completeness signed by an authorized representative of the owner or operator.

[Puget Sound Clean Air Agency Reg I: 12.03, 4/9/1998] [Order of Approval No. 6206(9)(c), 9/26/1995]

### *(d) Order of Approval No. 6206 Reporting Requirements for Power Boiler Combined Stack*

#### (1) $SO_2$ Reporting Requirements

Order of Approval No. 6206(9)(a), November 19, 1998, has been superseded by Order of Approval No. 7061(7)(a), August 9, 2001.

#### (2) $NO_X$ Reporting Requirements

Order of Approval No. 6206(5)(b), November 19, 1998, has been superseded by Order of Approval No. 7061(7)(b), August 9, 2001.

### *(e) Order of Approval No. 7061 Reporting Requirements for Boiler Combined Stack*

#### (1) Emission Rate Reporting

University of Washington shall meet the following reporting requirements to demonstrate compliance with Order of Approval No. 7061(7):

(a) Monthly reports to Puget Sound Clean Air Agency of total Power Plant $SO_2$, CO and $PM_{10}$ emissions in tons for the previous 12-month period, utilizing the methodology described in Section II.A.2(e)(6) for $SO_2$, Section II.A.2(e)(8), and Reference Method 19 for $PM_{10}$, using the $PM_{10}$ results of the most recent source test and operating rate for the previous 12-month period;

(b) Monthly reports to Puget Sound Clean Air Agency of total $NO_X$ emissions for the previous 12-month period, utilizing the methodology described in Section II.A.2(e)(7), based on:

(1) $NO_X$ emissions as measured by the CEMS in the combined stack, and

(2) $NO_X$ emissions as calculated from the emergency generators, and

(c) Report to the Puget Sound Clean Air Agency whenever the emissions of $SO_2$, $NO_X$, CO, or $PM_{10}$ exceed 90% of the limit specified in Order of Approval No. 7061(7).

[Order of Approval No. 7061(8), 8/09/2001]

### 3. NSPS Reporting Requirements for the Boiler No. 4 and Boiler No. 7 and Related Control Equipment

All reports required under this section shall be submitted to EPA Region 10 and to the Puget Sound Clean Air Agency, at the following addresses:

Puget Sound Clean Air Agency
Attn.: Operating Permit Certification
1904 3rd Avenue, Ste. 105
Seattle, Washington 98101

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

#### *(a) Initial Notifications for Boiler No. 7*

University of Washington shall furnish the Administrator and the Puget Sound Clean Air Agency written notification or, if acceptable to the Administrator, the Puget Sound Clean Air Agency, and the owner or operator of a source, electronic notification, as follows:

1) A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of any NSPS applicable facility is commenced postmarked no later than 30 days after such date.

2) A notification of the actual date of initial startup of any NSPS applicable facility postmarked within 15 days after such date. This notification shall include the design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility [40 CFR 60.49b(a), 3/13/2000].

3) A notification of any physical or operational change to an existing NSPS applicable facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

4) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

5) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

6) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by 40 CFR 60.8 in lieu of Method 9 observation data as allowed by 40 CFR 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

7) University of Washington shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS, using the applicable performance specifications in appendix B [40 CFR 60.49b(c), 3/13/2000].

[40 CFR 60.7(a), 2/12/1999]

### *(b) NSPS Subpart A General Reporting Requirements*

University of Washington shall submit a Summary (and, if necessary, an Excess Emissions and Monitoring System) Report to the Puget Sound Clean Air Agency and the EPA Administrator semiannually, except when the Puget Sound Clean Air Agency or the EPA Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. Puget Sound Clean Air Agency Regulation I, Article 12 requires the following NSPS reporting on a monthly schedule, to be postmarked by the 30th day following each monthly reporting period. Reports must include:

- The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), the date and time of commencement and completion of each period of excess emissions, and the process operating time during the reporting period;

- Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility along with the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted;

- The date and time identifying each period during which the CEMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

- When no excess emissions have occurred or the CEMS has not been inoperative, repaired or adjusted, such information must be stated in the report.

The excess emissions and monitoring systems performance summary report shall be submitted in the format shown below:

**SUMMARY REPORT**

Company: _____

Address: _____

Process unit description: _____

Reporting period dates: from _____ to _____

Pollutant: (circle one) Opacity $NO_X$

Emission limitation: _____

Monitor manufacturer and Model No.: _____

Date of latest CEMS certification or audit: _____

Total source operating time in reporting period: _____

**GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT**

***For opacity, record all times in minutes. For gases, record all times in hours***

| EMISSION DATA SUMMARY | CEMS PERFORMANCE SUMMARY |
|---|---|
| 1) Duration of excess emissions in reporting period due to: | 4) CEMS downtime in reporting period due to: |
| a) Startup/shutdown ..... _____ | a) Monitor equipment malfunctions ..... _____ |
| b) Control equipment problems ..... _____ | b) Non-monitor equipment malfunctions _____ |
| c) Process problems ..... _____ | c) Quality assurance calibration ..... _____ |
| d) Other known causes ..... _____ | d) Other known causes ..... _____ |
| e) Unknown causes ..... _____ | e) Unknown causes ..... _____ |
| 2) Total duration of excess emission ..... _____ | 5) Total CEMS downtime ..... _____ |
| 3) Total duration of excess emission ..... _____% as % of source operating time | 6) Total CEMS downtime ..... _____% as % of source operating time |

Periods of excess emissions are defined as:

- All 6-minute periods during which opacity exceeds 20% except for one 6-minute period per hour of not more than 27%; and
- All 30-day periods during which $NO_X$ exceeds 0.20 lb/MMBtu heat input.

On a separate page, describe any changes since last quarter in the compliance monitoring system, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____

Title: _____

Date: _____

One Summary (and, if necessary, one Excess Emissions and Monitoring System) Report form shall be submitted for each pollutant monitored at each affected facility.

- If the total duration of excess emissions for the reporting period is less than 1% of the total operating time for the reporting period and CEMS downtime for the reporting period is less than 5% of the total operating time for the operating period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) does need not to be submitted.

- If the total duration of excess emissions for the reporting period is 1% or greater of the total operating time for the reporting period and CEMS downtime for the reporting period is 5% or greater of the total operating time for the operating period, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.

[40 CFR 60.7(c) & (d), 2/12/1999], [40 CFR 60.49b(h), 3/13/2000].

### *(c) $SO_2$ Reporting Requirement for Boilers No. 4 and No. 7*

University of Washington shall obtain and maintain at Boiler No. 4 receipts from the fuel supplier that certify that any oil delivered to oil tanks that might supply fuel to Boiler No. 4 meets the definition of very low sulfur oil or distillate oil as defined in 40 CFR 60.41b. Fuel oil sulfur content requirements are detailed in Section II.A.2(c) above. University of Washington shall obtain and maintain at Boiler No. 7 receipts from the fuel supplier that certify that any oil delivered to oil tanks that might supply fuel to Boiler No. 7 meets the definition of distillate oil as defined in 40 CFR 60.41b. Fuel oil sulfur content requirements are detailed in Section II.A.2(d) above. Reports shall be submitted to the Puget Sound Clean Air Agency and the EPA Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the reporting period [40 CFR Part 60.49b(r), 3/13/2000]. The reporting period for the reports required under NSPS Subpart Db is each one-month period. Reports shall be submitted to the Puget Sound Clean Air Agency and EPA Administrator and shall be postmarked by the 30th day following the end of the reporting period [40 CFR 60.49b(j), 3/13/2000], [40 CFR 60.49b(w), 3/13/2000].

**Table 13 Reporting Requirements Summary**

| Name of Report | Required by | Frequency - Due Date | Certification required by "responsible official?" |
|---|---|---|---|
| **As soon as possible** | | | |
| Permit deviations that represent a potential threat to human health or safety | WAC 173-401-615(3)(b) | As soon as possible, but no later than 12 hours after deviation is discovered | No* |

| Name of Report | Required by | Frequency - Due Date | Certification required by "responsible official?" |
|---|---|---|---|
| **Monthly** - 30 days after the end of each calendar month | | | |
| Federally enforceable CEMS Reporting Requirements (void and not required after the EPA adopts the 4/9/1998 version of Reg I: 12 into the SIP | Reg I, Section 12.04, 8/10/1989<br>Order of Approval No. 6206(9)(c), 9/26/1995 | Monthly - 30 days after the end of each calendar month | No† |
| Non-federally enforceable CEMS Reporting Requirements (becomes federally enforceable after the EPA adopts the 4/9/1998 version of Reg I: 12 into the SIP) | Reg I, Section 12.03, 4/9/1998<br>Order of Approval No. 6206(9)(c), 9/26/1995 | Monthly - 30 days after the end of each calendar month | No† |
| Emission rate reporting for Power Plant Combined Stack | Order of Approval No. 7061(8), 8/09/2001 | Monthly - 30 days after the end of each calendar month | No† |
| Boiler No. 4 $SO_2$ report | Order of Approval No. 6206(9)(a), 9/26/1995 | Monthly - 30 days after the end of each calendar month | No† |
| Boiler No. 4 $NO_X$ report | Order of Approval No. 6206(9)(b), 9/26/1995 | Monthly - 30 days after the end of each calendar month | No† |
| Monthly Permit Deviations Report | WAC 173-401-615(3)(b) | Monthly - 30 days after the end of each calendar month | Yes, but not required more than every 6 months* |
| Failure to repair any defective equipment | WAC 173-401-615(3)(b) | Monthly - 30 days after the end of each calendar month | Yes, but not required more than every 6 months* |
| NSPS Summary Report & Excess Emissions and Monitoring Systems Performance Report – Boiler No. 4 opacity | 40 CFR 60.7(c) & (d), 60.49b(w) | Monthly - 30 days after the end of each calendar month | No† |
| NSPS Summary Report & Excess Emissions and Monitoring Systems Performance Report – Boiler No. 7 opacity | 40 CFR 60.7(c) & (d), 60.49b(w) | Monthly - 30 days after the end of each calendar month | No† |

| Name of Report | Required by | Frequency - Due Date | Certification required by "responsible official?" |
|---|---|---|---|
| NSPS Summary Report & Excess Emissions and Monitoring Systems Performance Report – Boiler No. 4 $NO_X$ | 40 CFR 60.7(c) & (d), 60.49b(w) | Monthly - 30 days after the end of each calendar month | No[†] |
| NSPS Summary Report & Excess Emissions and Monitoring Systems Performance Report – Boiler No. 7 $NO_X$ | 40 CFR 60.7(c) & (d), 60.49b(w) | Monthly - 30 days after the end of each calendar month | No[†] |
| **Semiannual** Every six months - January 31 and July 31each year, with the first one January 31, 2002 | | | |
| Monitoring reports | WAC 173-401-615(3)(a) | Every six months - January 31 and July 31 each year, with the first one July 31, 2001 | Yes |
| Semiannual Deviation Reports (to be included with monitoring reports) | WAC 173-401-615(3)(a) | Every six months - January 31 and July 31 each year | Yes |
| **Annual** | | | |
| Compliance certification | WAC 173-401-630(5) | Annually – January 31 for the previous reporting period | Yes |
| Source test report of annual source test on Ethylene Oxide Sterilizer | Reg III, Section 3.07(e) | Annually | No |
| Emission inventory statement | Reg. I, Section 7.09(a) | Annually - as specified by the Puget Sound Clean Air Agency | No |
| **Initial Notifications for Boiler No. 7** | | | |
| Boiler No. 7 – notification of date of construction | 40 CFR 60.7(a), | No later than 30 days after commencement of construction | No |
| Boiler No. 7 – notification of date of initial startup | 40 CFR 60.7(a) | No later than 30 days after commencement of construction | No |
| Boiler No. 7 – notification of date of construction | 40 CFR 60.7(a) | No later than 30 days after commencement of construction | No |
| Boiler No. 7 – notification of physical or operational changes that may increase emissions | 40 CFR 60.7(a) | 60 days or as soon as practicable before the change is commenced | No |
| Boiler No. 7 – notification of date upon which demonstration of the continuous monitoring system performance commences | 40 CFR 60.7(a) | No later than 30 days prior to testing | No |

| Name of Report | Required by | Frequency - Due Date | Certification required by "responsible official?" |
|---|---|---|---|
| Boiler No. 7 – notification of anticipated date for conducting the opacity observations | 40 CFR 60.7(a) | No later than 30 days prior to testing | No |
| Boiler No. 7 – notification of date that continuous opacity monitoring system data results will be used to determine compliance | 40 CFR 60.7(a) | No later than 30 days prior to testing | No |
| NSPS Fuel Oil Sulfur Content Report | 60.49b(r), 60.49b(s) | Every six months - January 31 and July 31each year | Yes |
| **Short-Term "As Needed" Reports** | | | |
| Notice of emergency | WAC 173-401-645 | Within 2 days of exceeding emission limits | Yes, but no more than every 6 months |
| Unavoidable excess emissions | WAC 173-400-107 | As needed | No |
| Administrative permit amendment request | WAC 173-401-720 | Can make change immediately on submission | No |
| Notice of changes not requiring permit revisions, including 502(b)(10) changes and SIP authorized emission trading | WAC 173-401-722 | 7 days prior to making a change | No |
| Notice of off permit changes | WAC 173-401-724 | Contemporaneous with the change | No |
| Minor permit modification application | WAC 173-401-725 | Can make change immediately after filing application | Yes |
| Significant permit modification application | WAC 173-401-725 | As needed | Yes |
| Notice of Construction and Application for Approval | Puget Sound Clean Air Agency Reg. I, Article 6 | Before construction begins | No |
| Asbestos project notification | Puget Sound Clean Air Agency Reg. III, Section 4.03 | Up to 10 days prior | No |
| PSD permit applications | WAC 173-400-141 | Before construction begins | No |

* Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification needs 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. [WAC 173-401-615(3)(a), 11/4/1993]

† Signature by the "responsible official" is not required, but signature by the individual described by the applicable requirement is required. Usually this is the person exercising managerial responsibility over the operation of the equipment for which monitoring is required.

### *Q. Emergencies.*

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 of WAC 173-401-645(3) are met.

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

8) An emergency occurred and that University of Washington can identify the cause(s) of the emergency;

9) University of Washington was at the time being properly operated;

10) During the period of the emergency University of Washington took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and

11) University of Washington submitted notice of the emergency to the Puget Sound Clean Air Agency within two (2) working days of the time when the emissions 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.

In any enforcement proceeding, University of Washington has the burden of proof to establish the occurrence of an emergency. This provision is in addition to any emergency or upset provision contained in any applicable requirement. [WAC 173-401-645, 11/4/1993]

### *R. Unavoidable excess emissions.*

Excess emissions due to startup or shutdown conditions, scheduled maintenance or upsets that are determined to be unavoidable under the procedures and criteria in WAC 173-400-107 shall be excused and not subject to penalty. For any excess emission that University of Washington wants the Puget Sound Clean Air Agency to consider unavoidable and excusable under WAC 173-400-107, University of Washington shall report as required by Section V.P.1.b) of this permit the following:

1) Why the event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

2) Why the event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and

3) How University of Washington took immediate and appropriate corrective action in a manner consistent with good engineering 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(2); 9/20/1993]

### *S. Need to halt or reduce activity not a defense.*

It shall not be a defense for University of Washington 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), 11/4/1993]

### *T. Stratospheric ozone and climate protection.*

1) University of Washington 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:

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

   ii) 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;

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

2) University of Washington 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, 1/13/1995]

3) Any certified technician employed by University of Washington shall keep a copy of their certification at their place of employment. [40 CFR 82.166(l), 8/8/1995]

   University of Washington shall not willfully release any regulated refrigerant and shall use refrigerant extraction equipment to recover regulated refrigerant when servicing, repairing or disposing of commercial air conditioning, heating, or refrigeration systems. [RCW 70.94.970(2) and (4), 11/12/1997 State/Puget Sound Clean Air Agency only]

4) University of Washington shall not sell, offer for sale, or purchase any of the following:

   a) A regulated refrigerant in a container designed for consumer recharge of a motor vehicle air conditioning system or consumer appliance during repair or service. This subsection does not apply to a regulated refrigerant purchased for the recharge of the air conditioning system of off-road commercial or agricultural equipment and sold or offered for sale at an establishment which specializes in the sale of off-road commercial or agricultural equipment or parts or service for such equipment; or

   b) Nonessential consumer products that contain chlorofluorocarbons or other ozone-depleting chemicals, and for which substitutes are readily available. Products affected under this subsection shall include, but are not limited to, party streamers, tire inflators, air horns, noise makers, and chlorofluorocarbon-containing cleaning sprays designed for noncommercial or non-industrial cleaning of electronic or photographic equipment.

   [RCW 70.94.980, 1991 c199 p603.]

### *U. RACT satisfied.*

Emission standards and other requirements contained in rules or regulatory orders in effect at the time of this permit issuance shall be considered RACT for the purposes of issuing this permit. [WAC 173-401-605(3), 11/4/1993; RCW 70.94.154(6) State/Puget Sound Clean Air Agency only]

### *V. Risk management programs.*

University of Washington currently does not have or receive more than a threshold quantity of a substance regulated under Section 112(r) of the Federal Clean Air Act. In accordance with 40 CFR part 68, if University of Washington has or receives more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, University of Washington shall comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR part 68 no later than the following dates:

1) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or

2) The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10, 1/6/1999]

### *W. Definitions.*

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, 11/4/1993]

### *X. Duty to supplement or correct application.*

Upon becoming aware that it has failed to submit any relevant facts in a permit application or that it has submitted incorrect information in a permit application, University of Washington shall promptly submit such supplementary facts or corrected information to the Puget Sound Clean Air Agency. [WAC 173-401-500(6), 11/4/1993]

### *Y. Insignificant emission units and activities.*

1) Insignificant emission units and activities at University of Washington are subject to all applicable requirements set forth in Sections I.A, III and IV. This permit shall not require testing, monitoring, reporting or recordkeeping for insignificant emission units or activities except as required by Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20. Compliance with Puget Sound Clean Air Agency Regulation I, Sections 7.09(b) and 9.20 shall be deemed to satisfy the requirements of WAC 173-401-615 and 173-401-630(1). [WAC 173-401-530(2)(c), 11/4/1993]

2) For insignificant emission units and activities, University of Washington does not need to certify compliance under WAC 173-401-630(5). [WAC 173-401-530(2)(d), 11/4/1993]

3) An emission unit or activity that qualifies as insignificant solely on the basis of WAC 173-401-530(1)(a) shall not exceed the emission thresholds specified in WAC 173-401-530(4) until this permit is modified pursuant to Section VI.E of this permit and WAC 173-401-725. [WAC 173-401-530(6), 11/4/1993]

# VI. PERMIT ACTIONS

## *A. Permit Renewal, Revocation and Expiration*

1) **Renewal application**. University of Washington shall submit a complete permit renewal application to the Puget Sound Clean Air Agency no later than 12 months prior to the expiration of this permit. Puget Sound Clean Air Agency will send University of Washington a renewal application no later than 18 months prior to the expiration of this permit. Failure of the Puget Sound Clean Air Agency to send University of Washington a renewal application shall not relieve University of Washington from the obligation to file a timely and complete renewal application. [WAC 173-401-710(1), WAC 173-401-500(2), 11/4/1993]

2) **Expired permits.** Permit expiration terminates University of Washington's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the permit shall remain in effect after this permit expires if a timely and complete permit application has been submitted. [WAC 173-401-710(3), 11/4/1993]

3) **Revocation of permits**. Puget Sound Clean Air Agency may revoke a permit only upon the request of University of Washington or for cause. Puget Sound Clean Air Agency shall provide at least thirty days written notice to University of Washington 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 University of Washington an opportunity to meet with the Puget Sound Clean Air Agency prior to the Puget Sound Clean Air Agency's final decision. A revocation issued under this condition may be issued conditionally with a future effective date and may specify that the revocation will not take effect if University of Washington satisfies the specified conditions before the effective date. Nothing in this subsection shall limit the Puget Sound Clean Air Agency's authority to issue emergency orders. [WAC 173-401-710(4), 11/4/1993]

## *B. Administrative Permit Amendments*

1) **Definition.** 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 University of Washington;

   c) Requires more frequent monitoring or reporting by University of Washington;

   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. [WAC 173-401-720(1), 11/4/1993]

2) **Administrative permit amendment procedures**. An administrative permit amendment may be made by the Puget Sound Clean Air Agency consistent with the following:

a) Puget Sound Clean Air Agency shall take no more than sixty days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected states provided that it designates any such permit revisions as having been made pursuant to this paragraph.

b) Puget Sound Clean Air Agency shall submit a copy of the revised permit to EPA.

c) University of Washington may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request [WAC 173-401-720(3), 11/4/1993]

3) **Permit shield**. 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 part (1)(e) of this condition. [WAC 173-401-720(4), 11/4/1993]

### *C. Changes not Requiring Permit Revisions*

1) **General**.

a) University of Washington is authorized to make the changes described in this section without a permit revision, providing the following conditions are met:

i) The proposed changes are not Title I modifications as defined in WAC 174-401-200(33);

ii) 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;

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

iv) University of Washington provides EPA and the Puget Sound Clean Air Agency 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.

b) Permit attachments. University of Washington and the Puget Sound Clean Air Agency shall attach each notice to their copy of the relevant permit.

2) **Section 502 (b)(10) changes**. Pursuant to the conditions in subsection (1) of this section, University of Washington is authorized to make section 502(b)(10) changes (as defined in WAC 173-401-200(28)) without a permit revision.

a) For each such change, the written notification required under subsection (1)(a)(iv) of this condition shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

b) The permit shield authorized under WAC 173-401-640 shall not apply to any change made pursuant to this paragraph.

3) **SIP authorized emissions trading.** Pursuant to the conditions in subsection (1) of this condition, University of Washington is authorized to trade increases and decreases in emissions in the permitted facility, where the Washington state implementation plan provides for such emissions trades without requiring a permit revision. This provision is available in those cases where the permit does not already provide for such emissions trading.

a) Under this subsection (3), the written notification required under subsection (1)(a)(iv) of this condition shall include such information as may be required by the provision in the Washington state implementation plan authorizing the emissions trade, including at a minimum, when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which University of Washington will comply using the emissions trading provisions of the Washington state implementation plan, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which University of Washington will comply in the applicable implementation plan and that provide for the emissions trade.

b) The permit shield described in WAC 173-401-640 shall not extend to any change made under this paragraph. Compliance with the permit requirements that University of Washington will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.

[WAC 173-401-722, 11/4/1993]

### *D. Off Permit Changes*

1) University of Washington shall be allowed to make changes not specifically addressed 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 or is a change subject to the acid rain requirements under Title IV of the FCAA must be submitted as a permit revision.

2) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

3) University of Washington must provide contemporaneous written notice to the Puget Sound Clean Air Agency and EPA of each 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) The change shall not qualify for the permit shield under WAC 173-401-640.

5) University of Washington shall keep a record describing changes made at University of Washington that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

6) When making a change under this section, University of Washington shall comply with applicable preconstruction review requirements established pursuant to RCW 70.94.152 and Puget Sound Clean Air Agency Regulation I Article 6. [WAC 173-401-724, 11/4/1993]

### *E. Permit Modification*

1) **Definition**. A permit modification is any revision to this permit that cannot be accomplished under provisions for administrative permit amendments under WAC 173-401-720.

2) **Procedures**. Minor permit modification procedures.

   a) Criteria.

      i) Minor permit modification procedures shall be used for those permit modifications that:

         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 University of Washington has assumed to avoid an applicable requirement to which University of Washington would otherwise be subject. Such terms and conditions include:

(1) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the FCAA; and

(2) An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the FCAA;

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

ii) Notwithstanding (a)(i) of this subsection, and subsection (3) of this section, the Puget Sound Clean Air Agency may allow the use of minor permit modification procedures for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that the use of such minor permit modification procedures are explicitly provided for in the Washington state implementation plan or in applicable requirements promulgated by EPA and in effect on April 7, 1993.

b) Application. An application requesting the use of minor permit modification procedures shall meet the requirements of WAC 173-401-510 and shall include the following:

i) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

ii) University of Washington's suggested draft permit;

iii) Certification by a responsible official, consistent with WAC 173-401-520, of the truth, accuracy, and completeness of the application and that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv) Completed forms for the Puget Sound Clean Air Agency to use to notify EPA and affected states as required under WAC 173-401-810 and 173-401-820.

c) University of Washington's ability to make change. University of Washington may make the change proposed in its minor permit modification application immediately after it files such application provided that those changes requiring the submission of a notice of construction application have been reviewed and approved by the Puget Sound Clean Air Agency. After University of Washington makes the change allowed by the preceding sentence, and until the Puget Sound Clean Air Agency takes any of the actions specified in WAC 173-401-725(d), University of Washington must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, University of Washington does not need to comply with the existing permit terms and conditions it seeks to modify. However, if University of Washington 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.

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

3) **Group processing of minor permit modifications.** Consistent with WAC 173-401-725(3), the Puget Sound Clean Air Agency may process groups of a source's applications for certain modifications eligible for minor permit modification processing.

4) **Significant modification procedures**.

a) Criteria. Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative permit amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing herein shall be construed to preclude University of Washington from making changes consistent with Chapter 173-401 WAC that would render existing permit compliance terms and conditions irrelevant.

b) Significant permit modifications 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. Puget Sound Clean Air Agency shall complete review on the majority of significant permit modifications within nine months after receipt of a complete application.

[WAC 173-401-725, 11/4/1993]

### *F. Reopening for Cause*

1) **Standard provisions.** This permit shall be reopened and revised under any of the following circumstances:

a) Additional applicable requirements become applicable to University of Washington with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);

b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;

c) Puget Sound Clean Air Agency or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

d) Puget Sound Clean Air Agency or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

2) **Procedures.** 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.

3) **Notice.** Reopenings under this section shall not be initiated before a notice of such intent is provided to University of Washington by the Puget Sound Clean Air Agency at least thirty days in advance of the date that the permit is to be reopened, except that the Puget Sound Clean Air Agency may provide a shorter time period in the case of an emergency.

[WAC 173-401-730, 11/4/1993]

# VII. PERMIT SHIELD

Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in Sections I through VI of this permit. [WAC 173-401-640(1), 11/4/1993]

Nothing in this permit shall alter or affect the following:

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

2) The liability of an owner or operator of University of Washington for any violation of applicable requirements prior to or at the time of permit issuance;

3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the FCAA;

4) The ability of EPA to obtain information from a source pursuant to Section 114 of the FCAA; or

5) 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), 11/4/1993]

## VIII. INAPPLICABLE REQUIREMENTS

As of the date of permit issuance, the requirements listed below do not apply to University of Washington, or to the specific emissions units specified below for the reasons indicated. The permit shield applies to all requirements so identified. [WAC 173-401-640(2), 11/4/1993]

**Table 14 Inapplicable Requirements**

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boiler No. 3 | 40 CFR Part 60, Subpart D – Standard of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 | Performance standards for fossil-fuel fired steam generating units of more that 250 million Btu per hour heat input rate that commenced construction or have been modified after August 17, 1971 | Power Plant Boiler No. 3 was constructed in 1948, prior to August 17, 1971. Boiler No. 3 has not been modified as defined by 40 CFR Part 60 Subpart A, Section 60.14 |
| Boiler No. 5 | 40 CFR Part 60, Subpart D – Standard of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 | Subpart D specifies performance standards for fossil-fuel fired steam generating units of more that 250 million Btu per hour heat input rate that commenced construction or have been modified after August 17, 1971 | Power Plant Boiler No. 5 was constructed in 1958, prior to August 17, 1971. Boiler No. 5 has not been modified as defined by 40 CFR Part 60 Subpart A, Section 60.14 |
| Boiler No. 6 | 40 CFR Part 60, Subpart D – Standard of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971 | Subpart D applies to each fossil-fuel fired steam generating units of more that 250 million Btu per hour heat input rate that commenced construction or have been modified after August 17, 1971 | Power Plant Boiler No. 6 was constructed in 1968, prior to August 17, 1971. Boiler No. 6 has not been modified as defined by 40 CFR Part 60 Subpart A, Section 60.14 |
| Boilers No. 3, No. 4, No. 5, and No. 6 | 40 CFR Part 60, Subpart Da – Standard of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 | Subpart Da applies to Electric Utility Steam Generating Units | The Power Plant does not sell power to a utility power distribution system |
| Boiler No. 3 | 40 CFR Part 60, Subpart Db – Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units | Subpart Db applies to steam generating units greater than 100 million Btu/hr and constructed, modified, or reconstructed after June 19, 1984 | Power Plant Boiler No. 3 was constructed in 1948, prior to June 19, 1984. Boiler No. 3 has not been modified as defined by 40 CFR Part 60 Subpart A, Section 60.14 |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boiler No. 5 | 40 CFR Part 60, Subpart Db – Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units | Subpart Db applies to steam generating units greater than 100 million Btu/hr and constructed, modified, or reconstructed after June 19, 1984 | Power Plant Boiler No. 5 was constructed in 1958, prior to June 19, 1984. Boiler No. 5 has not been modified as defined by 40 CFR Part 60 Subpart A, Section 60.14 |
| Boiler No. 6 | 40 CFR Part 60, Subpart Db – Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units | Subpart Db applies to steam generating units greater than 100 million Btu/hr and constructed, modified, or reconstructed after June 19, 1984 | Power Plant Boiler No. 6 was constructed in 1968, prior to June 19, 1984. Boiler No. 6 has not been modified per 40 CFR Part 60 Subpart A, Section 60.14 |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart Db Section 60.42b(a) | Section 60.42b(a) specifies sulfur emission reduction requirements for facilities that combust coal or oil | Boilers No. 4 & No. 7 are only allowed to combust natural gas and oil with sulfur content not to exceed 0.5%. Therefore, the University of Washington is exempt per 60.42b(j) |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart Db Section 60.42b(b) | Section 60.42b(b) specifies sulfur emission reduction requirements for facilities that combust coal | The University of Washington is prohibited from combusting coal |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.42b(c) | Section 60.42b(c) specifies sulfur emission reduction requirements for facilities using an emerging sulfur emission control technology | Boilers No. 4 & No. 7 are not equipped with an emerging sulfur emission control technology |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.42b(d) | Section 60.42b(d) specifies sulfur emission limits for facilities that combust coal or oil, or combust coal or oil in combination with any other fuel in a duct burner as part of a combined cycle system | Boilers No. 4 & No. 7 are prohibited from combusting coal, and prohibited from combusting fuel in a duct burner |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.43b(a) | Section 60.43b(a) specifies particulate emission standards for units combusting coal or coal mixed with other fuels | Boilers No. 4 & No. 7 are prohibited from combusting coal |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.43b(b) | Section 60.43b(b) specifies particulate emission standards for units combusting oil and equipped with a emerging technology to reduce sulfur dioxide emissions | Boilers No. 4 & No. 7 are not equipped with an emerging technology to reduce sulfur emissions |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.43b(c) | Section 60.43b(c) specifies particulate emission standards for units combusting wood or wood with other fuels except for coal | Boilers No. 4 & No. 7 are prohibited from combusting wood |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.43b(d) | Section 60.43b(d) specifies particulate emission standards for units combusting municipal-type solid waste with other fuels | Boilers No. 4 & No. 7 are prohibited from combusting municipal-type waste |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(a) *(all emission limits **except** those for high heat release rate, non-duct burner equipped units burning natural gas and distillate oil)* | Section 60.44b(a) specifies nitrogen oxides emission standards for units that combust natural gas, residual oil, or coal, and units equipped with a duct burner used in combined cycle systems | Boilers No. 4 & No. 7 do not burn fuels other than natural gas and distillate oil, and are not equipped with duct burners |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(b) | Section 60.44b(b) specifies nitrogen oxides emission standards for units that combust mixtures of natural gas or oil with coal and/or residual oil | Boilers No. 4 & No. 7 are prohibited from combusting coal and residual oil |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(c) & (d) | Section 60.44b(c) specifies nitrogen oxides emission standards for units that simultaneously combust coal, oil, or mixtures of these fuels with natural gas with wood, municipal-type solid waste, or other solid fuel. Section 60.44b(d) specifies nitrogen oxides emission standards for units that simultaneously combust natural gas with wood, municipal-type solid waste, or other solid fuel, except coal | Boilers No. 4 & No. 7 are prohibited from combusting solid fuel |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(e) | Section 60.44b(e) specifies nitrogen oxides emission standards for units that simultaneously combust coal, oil, or natural gas with byproduct/waste | The Power Plant is prohibited from combusting byproduct/waste |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(f) | Section 60.44b(f) applies to units that combust byproduct/waste with natural gas or oil | The Power Plant is prohibited from combusting byproduct/waste |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(g) | Section 60.44b(g) applies to units that combust hazardous waste | The Power Plant is prohibited from combusting hazardous waste |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.44b(j) | Section 60.44b(i) specifies performance test requirements for units required to combust fuels with a nitrogen content less than 0.30 weight percent | Boilers No. 4 & No. 7 do not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(a) | Particulate matter emission standards and opacity limits under 60.43b shall apply at all times | Coal, solid waste, and wood are not combusted |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(b) | Particulate matter emissions not to exceed 0.10 lb/MMBtu for facilities combusting oil and using technology to reduce $SO_2$ emissions | The particulate emission standards of 60.43b do not apply because Boilers No. 4 & No. 7 control $SO_2$ by burning extremely low sulfur oil or natural gas, and do not have $SO_2$ controls |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(d)(1), (2), (3), (4), (5), and (6) | These sections specify particulate emission performance tests required to demonstrate compliance | There are no particulate emission limits in 40 CFR 60.43 for boilers such as No. 4 and No. 7 that only fire natural gas or very low sulfur (or distillate) oil. Therefore, there is no requirement to test the boilers using methods specified in 40 CFR 60.46b |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(e)(2) | Section 60.46b(e)(2) applies to facilities that combust coal or residual oil | The Power Plant is prohibited from combusting coal or residual oil |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(e)(4) | Section 60.46b(e)(4) applies to facilities that combust natural gas, distillate oil or residual oil with a nitrogen content less than 0.3% by weight and have a capacity of less than 250 million Btu/hr | Boiler No. 4 capacity is greater than 250 Btu/hr and the nitrogen content of the fuel of Boiler No. 7 is not measured, and has never been found to be less than 0.3% by weight |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.45b | Section 60.45b specifies compliance and performance test methods and procedures for sulfur dioxide | Boiler No.4 combusts $\leq$ 0.5% sulfur oil and is not subject to the compliance and performance testing requirements since fuel receipts are obtained per 60.45b(j) |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(a)(5) | Section 60.46b(e)(5) applies to facilities combusting residual oil | The Power Plant is prohibited from combusting residual oil |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(f) | Section 60.46b(f) pertains to units equipped with duct burners used in combined cycle systems | Boilers No. 4 & No. 7 are not equipped with duct burners |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(g) | Section 60.46b(g) applies to units that have a federally enforceable limit on fuel nitrogen content | Boilers No. 4 & No. 7 do not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.46b(h) | Section 60.46b(h) applies to units that have a federally enforceable limit on fuel nitrogen content | Boilers No. 4 & No. 7 do not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.47b | Section 60.47b specifies emission monitoring for sulfur dioxide | Boiler No. 4 combusts $\leq$ 0.5% sulfur oil. Records are maintained per 60.47b(f) |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.48b(g) & 60.49b(c) | Section 60.48b(g) applies to units under 250 Btu/hr capacity that combust residual fuel. Section 60.49b(c) applies to an alternative monitoring technique for demonstrating compliance with 40 CFR 60.48b(g) | Boilers No. 4 & No. 7 are prohibited from combusting residual fuel |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.48b(h) | Section 60.48b(h) applies to units that have duct burners as part of a combined cycle | Boilers No. 4 & No. 7 are not equipped with duct burners |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.48b(i) | Section 60.48b(i) applies to units that have a federally enforceable limit on fuel nitrogen content | Boiler No.4 does not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(e) | Section 60.49b(e) applies to units combusting residual oil | Boilers No. 4 & No. 7 are prohibited from combusting residual oil |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(j) | Section 60.49b(e) applies to facilities subject to the sulfur dioxide standard | Boilers No. 4 & No. 7 are not subject to the sulfur dioxide standard |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(k) | Section 60.49b(k) applies to facilities subject to the sulfur dioxide standard | Boilers No. 4 & No. 7 are not subject to the sulfur dioxide standard |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(i) | Section 60.49b(i) applies to units that are subject to the sulfur dioxide standard | Boilers No. 4 & No. 7 are not subject to the sulfur dioxide standard |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(m) | Section 60.49b(m) applies to units that are subject to the sulfur dioxide standard | Boilers No. 4 & No. 7 are not subject to the sulfur dioxide standard |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(n) | Section 60.49b(n) applies to units that are subject to the sulfur dioxide standard | Boilers No. 4 & No. 7 are not subject to the sulfur dioxide standard |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(p) | Section 60.49b(p) applies to units that have a federally enforceable limit on fuel nitrogen content | Boilers No. 4 & No. 7 do not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 4 & No. 7 | 40 CFR Part 60, Subpart 60.49b(q) | Section 60.49b(q) applies to units that have a federally enforceable limit on fuel nitrogen content | Boilers No. 4 & No. 7 do not have federally enforceable limits on fuel nitrogen content |
| Boilers No. 3, No. 4, No. 5, and No. 6 | 40 CFR Part 60, Subpart Dc – Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating Units | Subpart Dc applies to steam generating units having a maximum design heat input capacity of 100 million Btu per hour or less | Boilers No. 3, No. 4, No. 5, and No. 6 have capacities greater than 100 MMBtu/hr |
| Printing Shop | 40 CFR Part 60, Subpart QQ – Standard of Performance for the Graphic Arts Industry: Publication Rotogravure Printing | Subpart QQ applies to rotogravure printing | Only off-set printing is performed and the University of Washington will apply for a permit change before installing printing capability other than off-set printing |
| General | 40 CFR Part 60, Subpart AAA – Standard of Performance for New Residential Wood Heaters | Subpart AAA applies to manufacturers and retailers of wood heaters | The University of Washington does not manufacture or sell wood heaters |
| General | 40 CFR Part 60, Subpart JJJ – Standard of Performance for Petroleum Dry Cleaners | Subpart JJJ applies to petroleum dry cleaning plants | The University of Washington does not operate a petroleum dry cleaning plant |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| (1) Power Plant 1.25 million gallon No. 2 fuel oil UST; (2) Power Plant 4,400 bbl No. 6 fuel oil USTs; (2) Power Plant 15,000 gallon No. 6 fuel oil USTs | 40 CFR Part 60, Subpart K – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 | Subpart K applies to each storage vessel for petroleum liquids | The Power Plant USTs do not contain petroleum liquid as defined by Section 60.111(b) |
| (5) Motor Pool 8,000 gallon gasoline USTs; (2), Motor Pool 6,000 gallon diesel USTs; (1) Motor Pool 1,000 gallon 30W motor oil UST; (1) Motor Pool 2,000 gallon spent oil UST | 40 CFR Part 60, Subpart K – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 | Subpart K applies to storage vessels for petroleum with a capacity of 40,000 gallons or greater | Listed USTs have capacities less than 40,000 gallons per tank |
| (1) Power Plant 1.25 million gallon No. 2 fuel oil UST; (2) Power Plant 15,000 gallon No. 2 fuel oil USTs | 40 CFR Part 60, Subpart Ka – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 | Subpart Ka applies to storage vessels for petroleum with a capacity of 40,000 gallons or greater | The Power Plant USTs do not contain petroleum liquid as defined by Section 60.111(b) |
| (5) Motor Pool 8,000 gallon gasoline USTs; (2) Motor Pool 6,000 gallon diesel USTs; (1) Motor Pool 1,000 gallon 30W motor oil UST; (1) Motor Pool 2,000 gallon spent oil UST | 40 CFR Part 60, Subpart Ka – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 | Subpart Ka applies to storage vessels for petroleum with a capacity of 40,000 gallons or greater | The Motor Pool USTs have capacities less than 40,000 gallons |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| (5) Motor Pool 8,000 gallon gasoline USTs; (2) Motor Pool 6,000 gallon diesel USTs; (1) Motor Pool 1,00 gallon 30W motor oil UST; (1) Motor Pool 2,000 gallon spent oil UST | 40 CFR Part 60, Subpart Kb – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | Subpart Kb applies to volatile organic storage vessels | Storage vessels at gasoline service stations are exempt from this regulation per 60.110b (d)(6) |
| (1) Power Plant 1.25 million gallon No. 2 fuel oil UST; (2) Power Plant 4,400 bbl No. 6 fuel oil USTs; (2) Power Plant 15,000 gallon No. 6 fuel oil USTs | 40 CFR Part 60, Subpart Kb – Standard of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | Subpart Kb applies to volatile organic storage vessels storing liquid with a maximum true vapor pressure less than 3.5 kPa or are exempt from this regulation | No. 2 and No.6 fuel oil have vapor pressures less than 3.5 kPa |
| General | 40 CFR Part 61, Subpart C – National Emission Standard for Beryllium | Subpart C applies to facilities that process beryllium | The University of Washington does not process beryllium |
| General | 40 CFR Part 61, Subpart E – National Emission Standard for Mercury | Subpart E applies to stationary sources that process mercury ore | The University of Washington does not process mercury ore |
| General | 40 CFR Part 61, Subpart F – National Emission Standard for Vinyl Chloride | Subpart F applies to plants that produce ethylene dichloride and vinyl chloride | The University of Washington is not a chemical production facility |
| General | 40 CFR Part 61, Subpart J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene | Subpart J applies to the following sources that are intended to operate in benzene service: pumps, compressors, pressure relief devices, sampling connections, etc | This regulation applies to equipment in benzene service at a site designed to produce or use greater than 1,000 megagrams of benzene per year |
| General | 40 CFR Part 61, Subpart M – National Emission Standard for Asbestos Section 61.142 | Section 61.142 applies to asbestos mills | The University of Washington does not operate an asbestos mill |
| General | 40 CFR Part 61, Subpart M – National Emission Standard for Asbestos Section 61.144 | Section 61.144 applies to manufacturing operations using commercial asbestos | The University of Washington is not a manufacturing facility |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| General | 40 CFR Part 61, Subpart M – National Emission Standard for Asbestos Section 61.146 | Section 61.146 applies to operations in which asbestos-containing materials are spray applied | Asbestos-containing spray material is not used at the University of Washington |
| General | 40 CFR Part 61, Subpart M – National Emission Standard for Asbestos Section 61.147 | Section 61.147 applies to fabricating operations using commercial asbestos | The University of Washington is not a fabrication facility |
| General | 40 CFR Part 61, Subpart M -- National Emission Standard for Asbestos Section 61.154 | Section 61.154 applies to owners of active waste disposal sites that receive asbestos-containing material | The University of Washington does not have an asbestos disposal site |
| General | 40 CFR Part 61, Subpart M -- National Emission Standard for Asbestos Section 61.155 | Section 61.155 applies to operations that convert asbestos-containing waste material into non-asbestos material | The University of Washington does not convert asbestos-containing waste material into non-asbestos material |
| General | 40 CFR Part 61, Subpart Q -- National Emission Standard for Radon Emissions from Department of Energy Facilities | Subpart Q applies to the design and operation of all storage and disposal facilities for radium-containing material | The University of Washington does not own/operate storage and disposal facilities for radium-containing material |
| General | 40 CFR Part 72 -- Permits Regulation | Part 72 establishes general provisions and the operating permit program requirements for affected sources and affected units under the Acid Rain Program | The University of Washington is not subject to the Acid Rain Program |
| General | 40 CFR, Part 75 -- Continuous Emission Monitoring | Part 75 establishes requirements for opacity data from affected units under the Acid Rain Program | The University of Washington is not subject to the Acid Rain Program |
| General | 40 CFR Part 77 -- Excess Emissions | Part 77 sets forth the excess emissions offset penalty requirements under the CAAA and applies to sources subject to the Acid Rain Program | The University of Washington is not subject to the Acid Rain Program |
| General | 40 CFR Part 79 -- Registration of Fuels and Fuel Additives | Part 79 applies to the registration of fuels and fuel additives by fuel manufacturers | The University of Washington is not a fuel manufacturer |
| General | 40 CFR Part 80 -- Regulation of Fuels and Fuel Additives | Part 80 regulates the control and/or prohibition of fuels and additives manufactured for use in vehicles | The University of Washington is not a fuel manufacturer |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| General | RCW 70.94.460 | Do not sell, offer to sell, or knowingly advertise to sell a new wood stove unless the wood stove has been approved under the under RCW 70.94.457 | The University of Washington does not sell wood stoves |
| General, Crematory | WAC 173-400-050(2) | For any incinerator, no person shall cause or permit emissions in excess of 100 ppm total carbonyls, and incinerators shall be operated only during daylight hours without written permission from Ecology or the authority. | The University of Washington is prohibited from combusting refuse. The crematory is not an incinerator |
| General, Commute Trip Reduction Plan | RCW 70.94.531 | Transportation demand management. | This section requires, within 6 months after King County adoption of a commute trip reduction plan, employers to develop a trip reduction program and submit the program to the Puget Sound Clean Air Agency for review. This section is not an applicable requirement because it does not apply to point sources. |
| Printing Shop | WAC 173-490-204 | This section applies to graphic arts systems that use more than 100 tons of VOCs per year | The Printing Shop does not process more than 10 tons of VOCs per year |
| Paint Spray Booths | WAC 173-490-205 | This section applies to surface coating of miscellaneous metal parts and products that have the potential to emit 10 tons VOCs per year | Paint spray booths do not have the potential to emit 10 tons VOCs per year |
| General | Puget Sound Clean Air Agency Regulation I, Section 5.11 | This section applies to gasoline blenders | The University of Washington does not blend fuels |
| General, Crematory | Puget Sound Clean Air Agency Regulation I, Section 9.05 | This section applies to refuse combustion | The University of Washington is prohibited from combusting refuse |
| General | Puget Sound Clean Air Agency Regulation II, Section 2.03 | This section applies to petroleum refineries | The University of Washington does not refine oil |
| Gasoline USTs | Puget Sound Clean Air Agency Regulation II, Section 2.04 | This section applies to volatile organic compound storage tanks greater than 40,000 | Motor Pool gasoline storage tank capacities are less than 40,000 gallons each |

| Emission Unit | Inapplicable Requirement | Regulation Description | Basis of Exemption |
|---|---|---|---|
| Power Plant USTs | Puget Sound Clean Air Agency Regulation II, Section 2.04 | This section applies to tanks storing compounds with vapor pressures greater than 1.5 psi | Power Plant fuels have vapor pressures less than 1.5 psi |
| General | Puget Sound Clean Air Agency Regulation II, Section 2.05 | This section applies to gasoline loading terminals | The University of Washington does not have a gasoline loading terminal |
| General | Puget Sound Clean Air Agency Regulation II, Section 2.06 | This section applies to bulk gasoline plants | The University of Washington does not own/operate a bulk gasoline plant |
| General | Puget Sound Clean Air Agency Regulation II, Section 3.03 | This section applies to can and paper coating operations | The University of Washington does not operate can and paper coating operations |
| General | Puget Sound Clean Air Agency Regulation II, Section 3.05 | This section applies to rotogravure and flexographic printing facilities that use more than 100 tons per year of volatile organic compounds | The Printer Services department does not process over 100 tons per year of volatile organic compounds |
| General | Puget Sound Clean Air Agency Regulation II, Section 3.07 | This section applies to petroleum solvent dry cleaning systems | The University of Washington does not own or operate dry cleaning equipment |
| General | Puget Sound Clean Air Agency Regulation II, Section 3.08 | This section applies to polyester, vinyl ester, gelcoat, and resin operations | The University of Washington does not operate polyester, vinyl ester, gelcoat, or resin operations |
| General | Puget Sound Clean Air Agency Regulation II, Section 3.11 | This section applies to coatings and ink manufacturers | The University of Washington does not manufacture coatings or inks |
| General | Puget Sound Clean Air Agency Regulation III, Section 3.01 | This section applies to chromic acid plating and anodizing | Chromic acid plating and anodizing are not performed on campus |
| General | Puget Sound Clean Air Regulation III, Section 3.03 | This section applies to perchloroethylene dry cleaners | The University of Washington does not own/operate a dry-cleaning facility |
| Existing Crematory | Puget Sound Clean Air Agency Regulation I, Section 6.03 | Submit a Notice of Construction Application for Approval | The existing crematory was installed prior to requirements |
| Printing Shop | Puget Sound Clean Air Agency Regulation I, Section 6.03 | Submit a Notice of Construction Application for Approval | Printing operations are insignificant per Regulation I, Section 5.03 Exhibit A (1) |

# IX. APPENDIXES

## *A. Reference Methods*

Compliance with standards in 40 CFR 60 shall be determined in accordance with performance tests using 40 CFR 60 Appendix A Reference Methods [40 CFR 60.48a(a), 4/10/2001]

Compliance with opacity standards in 40 CFR 60 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9 or by use of a continuous opacity monitoring system (COMS) in accordance with 40 CFR 60.11(e)(5) [40 CFR 60.11(b), 2/24/1997].

## *B. Non-EPA Test Methods*

- Puget Sound Clean Air Agency Method 5
- Ecology Method 9A
- NIOSH Method 1614
- NIOSH Method 3702
- CARB Test Procedure TP-201.3, Determination of 2 Inch (WC) Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, Adopted: April 12, 1996
- CARB Test Procedure TP-201.4, Determination of Dynamic Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, Adopted: April 12, 1996
- CARB Test Procedure TP-201.5, Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities, Adopted: April 12, 1996