

Effective Date: 8/01/2016  
Expiration Date: 3/31/2018

Hanford Air Operating Permit  
Permit No. 00-05-006  
Renewal 2, Revision B

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**HANFORD AIR OPERATING PERMIT  
PERMIT NUMBER 00-05-006  
RENEWAL 2, REVISION B  
ATTACHMENT 1**

**State of Washington Department of Ecology (Ecology)  
Nuclear Waste Program  
3100 Port of Benton Blvd.  
Richland, Washington 99354**

Effective Date: 8/01/2016  
Expiration Date: 3/31/2018

Hanford Air Operating Permit  
Permit No. 00-05-006  
Renewal 2, Revision B

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**HANFORD AIR OPERATING PERMIT  
PERMIT NUMBER 00-05-006  
RENEWAL 2, REVISION B  
ATTACHMENT 1**

Number: 00-05-006 (Hanford AOP Renewal 2, Rev. B)

State of Washington Department of Ecology (Ecology)  
Nuclear Waste Program  
3100 Port of Benton Blvd.  
Richland, Washington 99354

The permittee is authorized to operate the air emission units identified in this Air Operating Permit Number 00-05-006 and all insignificant emission units not specifically identified in this permit.



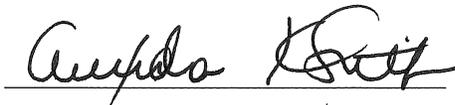
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7/22/16  
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7/22/16.  
Date

Effective Date: 8/01/2016  
Expiration Date: 3/31/2018

Hanford Air Operating Permit  
Permit No. 00-05-006  
Renewal 2, Revision B

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1 **1.0 EMISSION STANDARDS AND LIMITATIONS**

2 Emission standards and limitations for non-radioactive air pollutants are included in the  
 3 following sections.

4 **1.1 General Requirements**

5 All emissions units on the Hanford Site are covered by the general regulatory requirements,  
 6 emission limits [refer to definition of emissions unit in WAC 173-401-200 (12)], or work  
 7 practice standards in Table 1.1. The general standards in Table 1.1 are the applicable  
 8 requirements, emission limits, or work practice standards unless replaced by another emission  
 9 unit-specific requirement.

**Table 1.1 General Standards for Maximum Emissions**

Requirement citation (WAC or Order Citation)	Regulatory requirement, emission limit, or work practice standard	State-Only enforceable	Periodic monitoring	Periodic monitoring provisions	Test method <sup>1</sup>
WAC 173-400-040(2)	20% Opacity. Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.	N (Section 2.8)	Visible emission surveys	2.1	EPA Method 9 of 40 CFR 60, Appendix A.

**Table 1.1 General Standards for Maximum Emissions**

Requirement citation (WAC or Order Citation)	Regulatory requirement, emission limit, or work practice standard	State-Only enforceable	Periodic monitoring	Periodic monitoring provisions	Test method <sup>1</sup>
WAC 173-400-040(3)	Fallout.  Prohibits emissions of particulate matter from any source to be deposited beyond the facility boundaries in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material was deposited.	Y	Recordkeeping of complaint investigation.	2.2	
WAC 173-400-040(4)(a)	Fugitive emissions.  The Permittee shall take reasonable precautions to prevent the release of air contaminants from any emissions unit engaging in materials handling, construction, demolition, or any other operation that is a source of fugitive emissions.	N	Pre-job planning to determine reasonable control measures <sup>2</sup> .	2.3	

**Table 1.1 General Standards for Maximum Emissions**

Requirement citation (WAC or Order Citation)	Regulatory requirement, emission limit, or work practice standard	State-Only enforceable	Periodic monitoring	Periodic monitoring provisions	Test method <sup>1</sup>
WAC 173-400-040(5)	<p>Odor.</p> <p>Requires any facility causing an odor that unreasonably interferes with another person's use and enjoyment of their property to use recognized good practices and procedures to reduce odors to a reasonable minimum.</p>	Y	Recordkeeping of complaint investigations.	2.2	
WAC 173-400-040(6)	<p>Emissions detrimental to persons or property.</p> <p>Prohibits emissions of any air contaminant from any source that is detrimental to the health, safety, or welfare of any person, or causes damage to property or business</p>	N	Recordkeeping of complaint investigation.	2.2	

**Table 1.1 General Standards for Maximum Emissions**

Requirement citation (WAC or Order Citation)	Regulatory requirement, emission limit, or work practice standard	State-Only enforceable	Periodic monitoring	Periodic monitoring provisions	Test method <sup>1</sup>
WAC 173-400-040(7)	1,000 ppm SO <sub>2</sub> @ 7% O <sub>2</sub> on a dry basis.  Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1,000 ppm of a dry basis, corrected to 7% oxygen for combustion sources, and based on the average of any period of 60 consecutive minutes.	N (Section 2.9)	For fossil-fuel combustion units:  Recordkeeping of the certification that Ultra Low Sulfur Fuel was used.	2.7	EPA Method 6 or 6C of 40 CFR 60, Appendix A.
WAC 173-400-040(8)	Concealment and masking.  Prohibits the installation or use of any device or use of any means that conceals or masks an emission of an air contaminant that would otherwise violate any provision of WAC 173-400.	N	Recordkeeping of complaint investigation.	2.2	
WAC 173-400-040(9)(a)	Fugitive dust.  Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.	N	Pre-job planning to determine reasonable control measures <sup>2</sup> .	2.3	

<sup>1</sup> The test methods identified in this table are used as compliance verification tools. A frequency is not applicable unless specified in the table.  
<sup>2</sup>

1 <sup>2</sup> These requirements do not apply to emissions that pass through a stack, chimney, vent, or other functionally  
2 equivalent opening.

3

## 4 **1.2 Insignificant Emission Units**

5 Insignificant emission units (IEUs) are listed in the Statement of Basis for this Attachment 1. All  
6 IEUs shall maintain compliance with the general standards in Table 1.1, but compliance  
7 certification is not required for IEUs.

8 All emissions units not identified in Section 1.4 Discharge Points that are subject to 40 CFR 61,  
9 Subpart H in Attachment 2, Health License, have been determined to represent insignificant  
10 sources of non-radioactive regulated air pollutants. For these emission units no additional  
11 monitoring, reporting, or recordkeeping is necessary beyond the requirements in Attachment 2.  
12 All requirements identified in Attachment 2, Health License, for this category of emission unit  
13 continue to apply, as well as the requirement to annually certify compliance to any applicable  
14 requirements identified in Attachment 2, Health License.

15 These insignificant emission units need not be listed individually in the annual compliance  
16 certification unless there were observed, documented, or known instances of non-compliance  
17 during the certification period. Ecology has authority to establish case-by-case monitoring  
18 requirements as set forth in WAC 173-400-105 or other provisions of law.

19 [WAC 173-401-530(2)(b) and (2)(c)]

## 20 **1.3 Emission Units and Activities subject to Monitoring, Reporting, 21 Recordkeeping, and Compliance Certification**

22 Those emission units on the Hanford Site listed in Section 1.4 Discharge Points are subject to the  
23 requirement to annually certify compliance with the terms and conditions of this Permit.

## 24 **1.4 Discharge Points**

25 All emission units identified in this Section are subject to the general requirements listed in  
26 Table 1.1. More stringent conditions listed for specific discharge points in this Section are used  
27 in lieu of the general requirements.

28

1 **1.4.1 Discharge Point 234-5Z, Boiler 1, 2, and 3 (>5 mmBTU/hr – Fuel Oil)**

2 200W Area, 234-5Z Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 1.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

19 Condition: Use of fuel per 97NM-138

20 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
21 greater than 0.05 weight percent sulfur (500 parts per million by  
22 weight).

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **Condition Approval 6/6/1997**

- 2 Condition: NO<sub>x</sub> shall not exceed 0.150 lb/mm BTU and 115 ppm @ 3% O<sub>2</sub>.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.  
6 Test Frequency: Not applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: SO<sub>2</sub> shall not exceed 0.051 lb/mm BTU.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

- 22 Condition: CO shall not exceed 0.071 lb/mm BTU and 90 ppm @ 3% O<sub>2</sub>.  
23 Periodic Monitoring: Section 2.6.  
24 Frequency: Monthly.  
25 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.  
26 Test Frequency: Not Applicable.  
27 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
28 State-Only: No.  
29 Calculation Model: Not applicable.

30

1 **Condition Approval 6/6/1997**

2 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.011 lb/mm BTU.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.  
6 Test Frequency: Not Applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

12 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

22 Condition: A. Inspect burner.  
23 B. Inspect boiler exteriors.  
24 C. Check combustion controls.  
25 D. Check for leaks.  
26 E. Check for unusual noise, vibrations, etc.

27 Periodic Monitoring: Not Applicable.  
28 Frequency: Monthly.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: Records of inspections.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect air supply system and clean and repair if necessary.  
13 B. Clean and check fuel supply system, replace filters if necessary.  
14 Periodic Monitoring: Not Applicable.  
15 Frequency: Semi-annually.  
16 Test Method: Not Applicable.  
17 Test Frequency: Not Applicable.  
18 Required Records: Records of inspections and work performed.  
19 State-Only: Yes.  
20 Calculation Model: Not applicable.

21

22 **Condition Approval 6/6/1997**

- 23 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
24 qualified personnel.  
25 B. Clean fireside surfaces and breaching.  
26 C. Inspect refractory.  
27 Periodic Monitoring: Not Applicable.  
28 Frequency: Annually.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: See Section 2.5.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

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**1.4.2 Discharge Point: 242-A, Boiler 1, 2, and 3 (>5 mmBTU/hr – Fuel Oil)**

200E Area, 242-A Boiler Annex

Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
and 97NM-138, Amendment 1 (11/19/2009)

**Condition Approval**

Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.

Periodic Monitoring: Section 2.1.

Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

Test Frequency: Quarterly.

Required Records: As specified in Section 2.1, Tier 1.

State-Only: No.

Calculation Model: Not applicable.

**Condition Approval 6/6/1997**

Condition: Use of fuel per 97NM-138

Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no greater than 0.05 weight percent sulfur (500 parts per million by weight).

Test Method: Not applicable.

Test Frequency: Not applicable.

Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

State-Only: No.

Calculation Model: Not applicable.

1 **Condition Approval 6/6/1997**

- 2 Condition: NO<sub>x</sub> shall not exceed 0.150 lb/mm BTU and 115 ppm @ 3% O<sub>2</sub>.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.  
6 Test Frequency: Not applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: SO<sub>2</sub> shall not exceed 0.051 lb/mm BTU.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

- 22 Condition: CO shall not exceed 0.071 lb/mm BTU and 90 ppm @ 3% O<sub>2</sub>.  
23 Periodic Monitoring: Section 2.6.  
24 Frequency: Monthly.  
25 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.  
26 Test Frequency: Not Applicable.  
27 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
28 State-Only: No.  
29 Calculation Model: Not applicable.

30

1 **Condition Approval 6/6/1997**

2 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.011 lb/mm BTU.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.  
6 Test Frequency: Not Applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

12 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

22 Condition: A. Inspect burner.  
23 B. Inspect boiler exteriors.  
24 C. Check combustion controls.  
25 D. Check for leaks.  
26 E. Check for unusual noise, vibrations, etc.

27 Periodic Monitoring: Not Applicable.  
28 Frequency: Monthly.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: Records of inspections.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect air supply system and clean and repair if necessary.  
13 B. Clean and check fuel supply system, replace filters if necessary.  
14 Periodic Monitoring: Not Applicable.  
15 Frequency: Semi-annually.  
16 Test Method: Not Applicable.  
17 Test Frequency: Not Applicable.  
18 Required Records: Records of inspections and work performed.  
19 State-Only: Yes.  
20 Calculation Model: Not applicable.

21

22 **Condition Approval 6/6/1997**

- 23 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
24 qualified personnel.  
25 B. Clean fireside surfaces and breaching.  
26 C. Inspect refractory.  
27 Periodic Monitoring: Not Applicable.  
28 Frequency: Annually.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: See Section 2.5.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

35

1 **1.4.3 Discharge Point: 318 Boiler (<5 mmBTU/hr – Natural Gas)**

2 300 Area, 318 Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5 **Condition Approval**

6 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
7 than 3 minutes in any 1 hour of an air contaminant from any emissions  
8 unit or within a reasonable distance of the emission unit except for  
9 scheduled soot blowing/grate cleaning or due to documented water.

10 Periodic Monitoring: Section 2.1.

11 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

12 Test Frequency: Quarterly.

13 Required Records: As specified in Section 2.1, Tier 2.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

17 **Condition Approval 6/6/1997**

18 Condition: Visual check of combustion.

19 Periodic Monitoring: Not Applicable.

20 Frequency: Daily.

21 Test Method: Not Applicable.

22 Test Frequency: Not Applicable.

23 Required Records: Record available operating data.

24 State-Only: Yes.

25 Calculation Model: Not applicable.

26

27 **Condition Approval 6/6/1997**

28 Condition: A. Inspect air supply system and clean and repair if necessary.

29 B. Clean and check fuel supply system, replace filters if necessary.

30 Periodic Monitoring: Not Applicable.

31 Frequency: Semi-annually.

32 Test Method: Not Applicable.

33 Test Frequency: Not Applicable.

34 Required Records: Records of inspections and work performed.

35 State-Only: Yes.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 6/6/1997**

- 2 Condition: A. Inspect burner.  
3 B. Inspect boiler exteriors.  
4 C. Check combustion controls.  
5 D. Check for leaks.  
6 E. Check for unusual noise, vibrations, etc.

7 Periodic Monitoring: Not Applicable.

8 Frequency: Monthly.

9 Test Method: Not Applicable.

10 Test Frequency: Not Applicable.

11 Required Records: Records of inspections.

12 State-Only: Yes.

13 Calculation Model: Not applicable.

14

15 **Condition Approval 6/6/1997**

16 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
17 qualified personnel.

18 B. Inspect refractory.

19 C. Clean fireside surfaces and breaching.

20 Periodic Monitoring: Not Applicable.

21 Frequency: Every two years.

22 Test Method: Not Applicable.

23 Test Frequency: Not Applicable.

24 Required Records: Records of inspections.

25 State-Only: Yes.

26 Calculation Model: Not applicable.

27

28

1 **1.4.4 Discharge Point: 323 Boiler (<5 mmBTU/hr – Natural Gas)**

2 300 Area, 323 Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 2.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

19 Condition: A. Inspect burner.  
20 B. Inspect boiler exteriors.  
21 C. Check combustion controls.  
22 D. Check for leaks.  
23 E. Check for unusual noise, vibrations, etc.

24 Periodic Monitoring: Not Applicable.

25 Frequency: Monthly.

26 Test Method: Not Applicable.

27 Test Frequency: Not Applicable.

28 Required Records: Records of inspections.

29 State-Only: Yes.

30 Calculation Model: Not applicable.

31

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect air supply system and clean and repair if necessary.  
13 B. Clean and check fuel supply system, replace filters if necessary.  
14 Periodic Monitoring: Not Applicable.  
15 Frequency: Semi-annually.  
16 Test Method: Not Applicable.  
17 Test Frequency: Not Applicable.  
18 Required Records: Records of inspections and work performed.  
19 State-Only: Yes.  
20 Calculation Model: Not applicable.

21

22 **Condition Approval 6/6/1997**

- 23 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
24 qualified personnel.  
25 B. Inspect refractory.  
26 C. Clean fireside surfaces and breaching.  
27 Periodic Monitoring: Not Applicable.  
28 Frequency: Every two years.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: See Section 2.5.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

1 **1.4.5 Discharge Point: 3709A Boiler (<5 mmBTU/hr – Natural Gas)**

2 300 Area, 3709A Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 2.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

- 19 Condition: A. Inspect burner.  
20 B. Inspect boiler exteriors.  
21 C. Check combustion controls.  
22 D. Check for leaks.  
23 E. Check for unusual noise, vibrations, etc.

24 Periodic Monitoring: Not Applicable.

25 Frequency: Monthly.

26 Test Method: Not Applicable.

27 Test Frequency: Not Applicable.

28 Required Records: Records of inspections.

29 State-Only: Yes.

30 Calculation Model: Not applicable.

31

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect air supply system and clean and repair if necessary.  
13 B. Clean and check fuel supply system, replace filters if necessary.  
14 Periodic Monitoring: Not Applicable.  
15 Frequency: Semi-annually.  
16 Test Method: Not Applicable.  
17 Test Frequency: Not Applicable.  
18 Required Records: Records of inspections and work performed.  
19 State-Only: Yes.  
20 Calculation Model: Not applicable.

21

22 **Condition Approval 6/6/1997**

- 23 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
24 qualified personnel.  
25 B. Inspect refractory.  
26 C. Clean fireside surfaces and breaching.  
27 Periodic Monitoring: Not Applicable.  
28 Frequency: Every two years.  
29 Test Method: Not Applicable.  
30 Test Frequency: Not Applicable.  
31 Required Records: See Section 2.5.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

1 **1.4.6 Discharge Point: 324 Boiler 1 and Boiler 2(>5 mmBTU/hr – Natural Gas)**

2 300 Area, 324 Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 2.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

19 Condition: SO<sub>2</sub> shall not exceed 0.0006 lb/mm BTU.

20 Periodic Monitoring: Section 2.6.

21 Frequency: Monthly.

22 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.

23 Test Frequency: Not Applicable.

24 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

25 State-Only: No.

26 Calculation Model: Not applicable.

27

28 **Condition Approval 6/6/1997**

29 Condition: NO<sub>x</sub> shall not exceed 0.037 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.

30 Periodic Monitoring: Section 2.6.

31 Frequency: Monthly.

32 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.

33 Test Frequency: Not applicable.

34 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

35 State-Only: No.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 6/6/1997**

- 2 Condition: CO shall not exceed 0.225 lb/mm BTU and 300 ppm @ 3% O<sub>2</sub>.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.  
6 Test Frequency: Not Applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.012 lb/mm BTU.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

- 22 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.  
23 Periodic Monitoring: Section 2.6.  
24 Frequency: Monthly.  
25 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.  
26 Test Frequency: Not Applicable.  
27 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
28 State-Only: No.  
29 Calculation Model: Not applicable.

30

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect burner.  
13 B. Inspect boiler exteriors.  
14 C. Check combustion controls.  
15 D. Check for leaks.  
16 E. Check for unusual noise, vibrations, etc.  
17 Periodic Monitoring: Not Applicable.  
18 Frequency: Monthly.  
19 Test Method: Not Applicable.  
20 Test Frequency: Not Applicable.  
21 Required Records: Records of inspections.  
22 State-Only: Yes.  
23 Calculation Model: Not applicable.

24

25

26 **Condition Approval 6/6/1997**

- 27 Condition: A. Inspect air supply system and clean and repair if necessary.  
28 B. Clean and check fuel supply system, replace filters if necessary.  
29 Periodic Monitoring: Not Applicable.  
30 Frequency: Semi-annually.  
31 Test Method: Not Applicable.  
32 Test Frequency: Not Applicable.  
33 Required Records: Records of inspections and work performed.  
34 State-Only: Yes.  
35 Calculation Model: Not applicable.

36

- 1 **Condition Approval 6/6/1997**
- 2 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other
- 3 qualified personnel.
- 4 B. Inspect refractory.
- 5 C. Clean fireside surfaces and breaching.
- 6 Periodic Monitoring: Not Applicable.
- 7 Frequency: Annually.
- 8 Test Method: Not Applicable.
- 9 Test Frequency: Not Applicable.
- 10 Required Records: See Section 2.5.
- 11 State-Only: Yes.
- 12 Calculation Model: Not applicable.
- 13

1 **1.4.7 Discharge Point: 325 Boiler 1 and Boiler 2(>5 mmBTU/hr – Natural Gas)**

2 300 Area, 325 Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 2.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

19 Condition: SO<sub>2</sub> shall not exceed 0.0006 lb/mm BTU.

20 Periodic Monitoring: Section 2.6.

21 Frequency: Monthly.

22 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.

23 Test Frequency: Not Applicable.

24 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

25 State-Only: No.

26 Calculation Model: Not applicable.

27

28 **Condition Approval 6/6/1997**

29 Condition: NO<sub>x</sub> shall not exceed 0.037 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.

30 Periodic Monitoring: Section 2.6.

31 Frequency: Monthly.

32 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.

33 Test Frequency: Not applicable.

34 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

35 State-Only: No.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 6/6/1997**

- 2 Condition: CO shall not exceed 0.225 lb/mm BTU and 300 ppm @ 3% O<sub>2</sub>.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.  
6 Test Frequency: Not Applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.012 lb/mm BTU.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

- 22 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.  
23 Periodic Monitoring: Section 2.6.  
24 Frequency: Monthly.  
25 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.  
26 Test Frequency: Not Applicable.  
27 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
28 State-Only: No.  
29 Calculation Model: Not applicable.

30

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect burner.  
13 B. Inspect boiler exteriors.  
14 C. Check combustion controls.  
15 D. Check for leaks.  
16 E. Check for unusual noise, vibrations, etc.  
17 Periodic Monitoring: Not Applicable.  
18 Frequency: Monthly.  
19 Test Method: Not Applicable.  
20 Test Frequency: Not Applicable.  
21 Required Records: Records of inspections.  
22 State-Only: Yes.  
23 Calculation Model: Not applicable.

24

25

26 **Condition Approval 6/6/1997**

- 27 Condition: A. Inspect air supply system and clean and repair if necessary.  
28 B. Clean and check fuel supply system, replace filters if necessary.  
29 Periodic Monitoring: Not Applicable.  
30 Frequency: Semi-annually.  
31 Test Method: Not Applicable.  
32 Test Frequency: Not Applicable.  
33 Required Records: Records of inspections and work performed.  
34 State-Only: Yes.  
35 Calculation Model: Not applicable.

36

- 1 **Condition Approval 6/6/1997**
- 2 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other
- 3 qualified personnel.
- 4 B. Inspect refractory.
- 5 C. Clean fireside surfaces and breaching.
- 6 Periodic Monitoring: Not Applicable.
- 7 Frequency: Annually.
- 8 Test Method: Not Applicable.
- 9 Test Frequency: Not Applicable.
- 10 Required Records: See Section 2.5.
- 11 State-Only: Yes.
- 12 Calculation Model: Not applicable.
- 13

1 **1.4.8 Discharge Point: 331 Boiler 1 and Boiler 2 (<5 mmBTU/hr – Natural Gas)**

2 300 Area, 331 Boiler Annex

3 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
4 and 97NM-138, Amendment 1 (11/19/2009)

5  
6 **Condition Approval**

7 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
8 than 3 minutes in any 1 hour of an air contaminant from any emissions  
9 unit or within a reasonable distance of the emission unit except for  
10 scheduled soot blowing/grate cleaning or due to documented water.

11 Periodic Monitoring: Section 2.1.

12 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

13 Test Frequency: Quarterly.

14 Required Records: As specified in Section 2.1, Tier 2.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval 6/6/1997**

19 Condition: SO<sub>2</sub> shall not exceed 0.0006 lb/mm BTU.

20 Periodic Monitoring: Section 2.6.

21 Frequency: Monthly.

22 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.

23 Test Frequency: Not Applicable.

24 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

25 State-Only: No.

26 Calculation Model: Not applicable.

27

28 **Condition Approval 6/6/1997**

29 Condition: NO<sub>x</sub> shall not exceed 0.037 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.

30 Periodic Monitoring: Section 2.6.

31 Frequency: Monthly.

32 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.

33 Test Frequency: Not applicable.

34 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

35 State-Only: No.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 6/6/1997**

- 2 Condition: CO shall not exceed 0.225 lb/mm BTU and 300 ppm @ 3% O<sub>2</sub>.  
3 Periodic Monitoring: Section 2.6.  
4 Frequency: Monthly.  
5 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.  
6 Test Frequency: Not Applicable.  
7 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.012 lb/mm BTU.  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 6/6/1997**

- 22 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub>.  
23 Periodic Monitoring: Section 2.6.  
24 Frequency: Monthly.  
25 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.  
26 Test Frequency: Not Applicable.  
27 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
28 State-Only: No.  
29 Calculation Model: Not applicable.

30

1 **Condition Approval 6/6/1997**

- 2 Condition: Visual check of combustion.  
3 Periodic Monitoring: Not Applicable.  
4 Frequency: Daily.  
5 Test Method: Not Applicable.  
6 Test Frequency: Not Applicable.  
7 Required Records: Record available operating data.  
8 State-Only: Yes.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 6/6/1997**

- 12 Condition: A. Inspect burner.  
13 B. Inspect boiler exteriors.  
14 C. Check combustion controls.  
15 D. Check for leaks.  
16 E. Check for unusual noise, vibrations, etc.  
17 Periodic Monitoring: Not Applicable.  
18 Frequency: Monthly.  
19 Test Method: Not Applicable.  
20 Test Frequency: Not Applicable.  
21 Required Records: Records of inspections.  
22 State-Only: Yes.  
23 Calculation Model: Not applicable.

24

25

26 **Condition Approval 6/6/1997**

- 27 Condition: A. Inspect air supply system and clean and repair if necessary.  
28 B. Clean and check fuel supply system, replace filters if necessary.  
29 Periodic Monitoring: Not Applicable.  
30 Frequency: Semi-annually.  
31 Test Method: Not Applicable.  
32 Test Frequency: Not Applicable.  
33 Required Records: Records of inspections and work performed.  
34 State-Only: Yes.  
35 Calculation Model: Not applicable.

36

- 1 **Condition Approval 6/6/1997**  
2 Condition: A. Conduct boiler tune-up by manufacturer trained technician or other  
3 qualified personnel.  
4 B. Inspect refractory.  
5 C. Clean fireside surfaces and breaching.  
6 Periodic Monitoring: Not Applicable.  
7 Frequency: Annually.  
8 Test Method: Not Applicable.  
9 Test Frequency: Not Applicable.  
10 Required Records: See Section 2.5.  
11 State-Only: Yes.  
12 Calculation Model: Not applicable.  
13  
14

1 **1.4.9 Discharge Point: Portable Boiler (<5 mmBTU/hr – Dual Fuel)**

2 The portable boiler can be operated with either fuel oil or natural gas as the combustion source.  
3 Dependent on the source being used, the emission requirements are different. Each emission  
4 condition will list the condition followed by the type of fuel the condition applies to.

5  
6 Hanford Site

7 Requirement Citation: 40 CFR 60, Subpart Dc (WAC 173-400-115), 97NM-138 (6/6/1997),  
8 and 97NM-138, Amendment 1 (11/19/2009)

9  
10 **1.4.9.1 Natural Gas**

11 **Condition Approval 6/6/1997**

12 Condition: SO<sub>2</sub> shall not exceed 0.0006 lb/mm BTU – fired using natural gas  
13 Periodic Monitoring: Section 2.6.  
14 Frequency: Monthly.  
15 Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A.  
16 Test Frequency: Not Applicable.  
17 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20  
21 **Condition Approval 6/6/1997**

22 Condition: NO<sub>x</sub> shall not exceed 0.037 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub> – fired  
23 using natural gas  
24 Periodic Monitoring: Section 2.6  
25 Frequency: Monthly.  
26 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.  
27 Test Frequency: Not applicable.  
28 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
29 State-Only: No.  
30 Calculation Model: Not applicable.

31

1 **Condition Approval 6/6/1997**

2 Condition: CO shall not exceed 0.225 lb/mm BTU and 300 ppm @ 3% O<sub>2</sub> – fired  
3 using natural gas.

4 Periodic Monitoring: Section 2.6.

5 Frequency: Monthly.

6 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.

7 Test Frequency: Not Applicable.

8 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

9 State-Only: No.

10 Calculation Model: Not applicable.

11

12 **Condition Approval 6/6/1997**

13 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.012 lb/mm BTU – fired using  
14 natural gas.

15 Periodic Monitoring: Section 2.6.

16 Frequency: Monthly.

17 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.

18 Test Frequency: Not Applicable.

19 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

20 State-Only: No.

21 Calculation Model: Not applicable.

22

23 **Condition Approval 6/6/1997**

24 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub> – fired  
25 using natural gas.

26 Periodic Monitoring: Section 2.6.

27 Frequency: Monthly.

28 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.

29 Test Frequency: Not Applicable.

30 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

31 State-Only: No.

32 Calculation Model: Not applicable.

33

1 **1.4.9.2 Distillate Fuel-Oil**

2 **Condition Approval 6/6/1997**

- 3 Condition: Use of fuel per 97NM-138 – fired using distillate fuel-oil.  
4 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
5 greater than 0.0015 weight percent sulfur (15 parts per million by  
6 weight).  
7 Test Method: Not applicable.  
8 Test Frequency: Not applicable.  
9 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.  
10 State-Only: No.  
11 Calculation Model: Not applicable.

12

13 **Condition Approval 6/6/1997**

- 14 Condition: NO<sub>x</sub> shall not exceed 0.150 lb/mm BTU and 115 ppm @ 3% O<sub>2</sub> – fired  
15 using distillate fuel-oil.  
16 Periodic Monitoring: Section 2.6.  
17 Frequency: Monthly.  
18 Test Method: EPA Method 7E of 40 CFR 60, Appendix A.  
19 Test Frequency: Not applicable.  
20 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
21 State-Only: No.  
22 Calculation Model: Not applicable.

23

24 **Condition Approval 6/6/1997**

- 25 Condition: SO<sub>2</sub> shall not exceed 0.051 lb/mm BTU – fired using distillate fuel-oil  
26 Periodic Monitoring: Section 2.6.  
27 Frequency: Monthly.  
28 Test Method: EPA Method 6 or 6C10 of 40 CFR 60, Appendix A.  
29 Test Frequency: Not Applicable.  
30 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).  
31 State-Only: No.  
32 Calculation Model: Not applicable.

33

1 **Condition Approval 6/6/1997**

2 Condition: CO shall not exceed 0.071 lb/mm BTU and 90 ppm @ 3% O<sub>2</sub> – fired  
3 using distillate fuel-oil.

4 Periodic Monitoring: Section 2.6.

5 Frequency: Monthly.

6 Test Method: EPA Method 10 of 40 CFR 60, Appendix A.

7 Test Frequency: Not Applicable.

8 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

9 State-Only: No.

10 Calculation Model: Not applicable.

11

12 **Condition Approval 6/6/1997**

13 Condition: Particulate matter (PM<sub>10</sub>) shall not exceed 0.011 lb/mm BTU – fired using  
14 distillate fuel-oil.

15 Periodic Monitoring: Section 2.6.

16 Frequency: Monthly.

17 Test Method: EPA Method 5 of 40 CFR 60, Appendix A.

18 Test Frequency: Not Applicable.

19 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

20 State-Only: No.

21 Calculation Model: Not applicable.

22

23 **Condition Approval 6/6/1997**

24 Condition: VOC shall not exceed 0.013 lb/mm BTU and 30 ppm @ 3% O<sub>2</sub> – fired  
25 using distillate fuel-oil.

26 Periodic Monitoring: Section 2.6.

27 Frequency: Monthly.

28 Test Method: EPA Method 25 or 25A of 40 CFR 60, Appendix A.

29 Test Frequency: Not Applicable.

30 Required Records: Monthly records of fuel use on each boiler (See Section 2.5).

31 State-Only: No.

32 Calculation Model: Not applicable.

33

1 **1.4.9.3 Conditions Applicable Regardless of Fuel Used**

2 **Condition Approval**

3 Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more  
4 than 3 minutes in any 1 hour of an air contaminant from any emissions  
5 unit or within a reasonable distance of the emission unit except for  
6 scheduled soot blowing/grate cleaning or due to documented water.

7 Periodic Monitoring: Section 2.1.

8 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

9 Test Frequency: Quarterly.

10 Required Records: As specified in Section 2.1, Tier 2.

11 State-Only: No.

12 Calculation Model: Not applicable.

13

14 **Condition Approval 6/6/1997**

15 Condition: Visual check of combustion.

16 Periodic Monitoring: Not Applicable.

17 Frequency: Daily.

18 Test Method: Not Applicable.

19 Test Frequency: Not Applicable.

20 Required Records: Record available operating data.

21 State-Only: Yes.

22 Calculation Model: Not applicable.

23

24 **Condition Approval 6/6/1997**

25 Condition: A. Inspect burner

26 B. Inspect boiler exteriors

27 C. Check combustion controls

28 D. Check for leaks

29 E. Check for unusual noise, vibrations, etc.

30 Periodic Monitoring: Not Applicable.

31 Frequency: Monthly.

32 Test Method: Not Applicable.

33 Test Frequency: Not Applicable.

34 Required Records: Records of inspections.

35 State-Only: Yes.

36 Calculation Model: Not applicable.

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**Condition Approval 6/6/1997**

- Condition: A. Inspect air supply system and clean and repair if necessary.
- B. Clean and check fuel supply system, replace filters if necessary.
- Periodic Monitoring: Not Applicable.
- Frequency: Semi-annually.
- Test Method: Not Applicable.
- Test Frequency: Not Applicable.
- Required Records: Records of inspections and work performed.
- State-Only: Yes.
- Calculation Model: Not applicable.

**Condition Approval 6/6/1997**

- Condition: A. Conduct boiler tune-up by manufacturer trained technician or other qualified personnel.
- B. Inspect refractory.
- C. Clean fireside surfaces and breaching.
- Periodic Monitoring: Not Applicable.
- Frequency: Annually.
- Test Method: Not Applicable.
- Test Frequency: Not Applicable.
- Required Records: See Section 2.5.
- State-Only: Yes.
- Calculation Model: Not applicable.

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**1.4.10 Discharge Point: E-225BC 001**

200E Area Internal Combustion Engine 500 Horsepower and Greater  
Requirement Citation: WAC 173-400-040 (2) and WAC 173-400-040 (7)

**Condition Approval**

Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.

Periodic Monitoring: Section 2.1, Tier 1

Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

Test Frequency: Quarterly.

Required Records: As specified in Section 2.1

State-Only: No.

Calculation Model: Not applicable.

**Condition Approval**

Condition: 1,000 ppm SO<sub>2</sub> @ 7% O<sub>2</sub> on a dry basis. Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1,000 ppm of a dry basis, corrected to 7% oxygen combustion sources, and based on the average of any period of 60 consecutive minutes.

Periodic Monitoring: Section 2.7, Tier 1

Frequency: Not Applicable

Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A

Test Frequency: Not Applicable

Required Records: 1. Amount and type of fuel burned  
2. Vendor documentation or fuel analysis once per year.

State-Only: No.

Calculation Model: Not applicable.

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**1.4.11 Discharge Point: E-225BG 001**

200E Area Internal Combustion Engine 500 Horsepower and Greater  
Requirement Citation: WAC 173-400-040 (2) and WAC 173-400-040 (7)

**Condition Approval**

Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.

Periodic Monitoring: Section 2.1, Tier 1

Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

Test Frequency: Quarterly.

Required Records: As specified in Section 2.1.

State-Only: No.

Calculation Model: Not applicable.

**Condition Approval**

Condition: 1,000 ppm SO<sub>2</sub> @ 7% O<sub>2</sub> on a dry basis. Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1,000 ppm of a dry basis, corrected to 7% oxygen combustion sources, and based on the average of any period of 60 consecutive minutes.

Periodic Monitoring: Section 2.7, Tier 1

Frequency: Not Applicable

Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A

Test Frequency: Not Applicable

Required Records: 1. Amount and type of fuel burned  
2. Vendor documentation or fuel analysis once per year.

State-Only: No.

Calculation Model: Not applicable.

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**1.4.12 Discharge Point: E-4250 001, G-3225BC 001**

400 Area Internal Combustion Engine 500 Horsepower and Greater  
Requirement Citation: WAC 173-400-040 (2) and WAC 173-400-040 (7)

**Condition Approval**

Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.

Periodic Monitoring: Section 2.1, Tier 1

Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

Test Frequency: Quarterly.

Required Records: As specified in Section 2.1.

State-Only: No.

Calculation Model: Not applicable.

**Condition Approval**

Condition: 1,000 ppm SO<sub>2</sub> @ 7% O<sub>2</sub> on a dry basis. Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1,000 ppm of a dry basis, corrected to 7% oxygen combustion sources, and based on the average of any period of 60 consecutive minutes.

Periodic Monitoring: Section 2.7, Tier 1

Frequency: Not Applicable

Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A

Test Frequency: Not Applicable

Required Records: 1. Amount and type of fuel burned  
2. Vendor documentation or fuel analysis once per year.

State-Only: No.

Calculation Model: Not applicable.

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**1.4.13 Discharge Point: E-WSCF 001**

200 Area Internal Combustion Engine 500 Horsepower and Greater  
Requirement Citation: WAC 173-400-040 (2) and WAC 173-400-040 (7)

**Condition Approval**

Condition: 20% opacity: Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.

Periodic Monitoring: Section 2.1, Tier 1

Test Method: EPA Method 9 of 40 CFR 60, Appendix A.

Test Frequency: Quarterly.

Required Records: As specified in Section 2.1.

State-Only: No.

Calculation Model: Not applicable.

**Condition Approval**

Condition: 1,000 ppm SO<sub>2</sub> @ 7% O<sub>2</sub> on a dry basis. Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1,000 ppm of a dry basis, corrected to 7% oxygen combustion sources, and based on the average of any period of 60 consecutive minutes.

Periodic Monitoring: Section 2.7, Tier 1

Frequency: Not Applicable

Test Method: EPA Method 6 or 6C of 40 CFR 60, Appendix A

Test Frequency: Not Applicable

Required Records: 1. Amount and type of fuel burned  
2. Vendor documentation or fuel analysis once per year.

State-Only: No.

Calculation Model: Not applicable.

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2 **1.4.14 Discharge Point: CWC**  
3 200W Area, Central Waste Complex  
4 Requirement Citation (WAC or Order Citation): DE00NWP-002 Revision 1  
5 **Condition Approval 6/29/2006**  
6 Condition: Visible emissions shall not exceed limits specified in WAC 173-400-  
7 040(2).  
8 Periodic Monitoring: Section 2.1, Tier 3 survey/observation.  
9 Frequency: Not applicable (assessment of cause of visible emissions).  
10 Test Method: EPA Method 9 of 40 CFR 60, Appendix A or Section 2.1, Tier 3 Visible  
11 Emissions Survey of this AOP.  
12 Test Frequency: Routine observation.  
13 Required Records: Log book.  
14 State-Only: No.  
15 Calculation Model: Not applicable.  
16 **Condition Approval 6/29/2006**  
17 Condition: VOC emissions shall not exceed 3.5 tons per year.  
18 Periodic Monitoring: Emission estimation (Condition 3.0 of the NOC).  
19 Frequency: Annually.  
20 Test Method: Material assessment, inventory, and calculation as identified in the NOC  
21 Approval Condition 3.0.  
22 Test Frequency: Annually.  
23 Required Records: Results of analyses.  
24 State-Only: No.  
25 Calculation Model: Not applicable.  
26 **Condition Approval 6/29/2006**  
27 Condition: All TAPs, as submitted in the Permittee's Notice of Construction  
28 Application, shall be below their respective ASIL.  
29 Periodic Monitoring: Emission estimation (Condition 3.0 of this NOC).  
30 Frequency: Annually.  
31 Test Method: Material assessment, inventory, and calculation as identified in the NOC  
32 Approval Condition 3.0.  
33 Test Frequency: Annually.  
34 Required Records: Results of analyses.  
35 State-Only: No.  
36 Calculation Model: Not applicable.  
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**1.4.15 Discharge Point: Concrete Batch Plant**

200E Area, Vitrification

Requirement Citation (WAC or Order Citation): DE01NWP-003 (8/21/2001), 9/24/2002  
Revision, and 3/12/2003 Revision

**Condition Approval 8/21/2001**

Condition: Total Emission Limits

- A. Particulate Matter - Particulates from the bag-house exhaust shall not exceed 0.01 grains per dry standard cubic foot, with no visible emissions. Engineering calculations or vendor information that the bag-house, when properly operated and maintained, will control emissions to less than 0.01 grains per dry standard cubic foot will be available at the facility. Periodic measurements shall consist of visible emission inspections per EPA Reference Method 22, 40 CFR 60, Appendix A, July 1, 2000.
- B. Fugitive Dust - Visible emissions from the sand and aggregate transfer points, truck loading station, the piles, or any other source shall not be allowed beyond 100 yards.

Periodic Monitoring: A. Recordkeeping

Test Method: B. EPA Method 22 of Title 40 Part 60, Appendix A, July 1, 2000.

Test Frequency: Not applicable.

Required Records: A. Calculations, vendor information, baghouse maintenance logs, surveillance checklists.

B. Visible emission survey results.

State-Only: No.

Calculation Model: Not applicable.

1 **Condition Approval 8/21/2001**

2 Condition: Fugitive Dust

3 All unpaved areas at the CBP and quarry will be controlled by watering,  
4 chemical stabilization, or both. Means of chemical stabilization include  
5 the application of petroleum resins (EPA 1998). A water spray additive,  
6 (such as, "soil cement") will also be considered for application on unpaved  
7 roads. Soil cement has been previously used on the Hanford Site with  
8 effective results.

9 Vehicle speed limit signs will be posted to control speeds. Paved roads  
10 between the quarry and CBP will be kept clear of heavy accumulations of  
11 dust and debris. Front-end loaders will be used to pick up any significant  
12 spill of sand or aggregate material on the paved roads between the quarry  
13 and CBP. The sand and aggregate stockpiles will be kept sprinkled with  
14 water to prevent the movement of materials that may migrate because of  
15 wind erosion. Transfer points at conveyors, crushers, and screens will also  
16 be sprayed with water.

17 Periodic Monitoring: Recordkeeping

18 Test Method: Not specified.

19 Test Frequency: Not applicable.

20 Required Records: Surveillance checklists.

21 State-Only: No.

22 Calculation Model: Not applicable.

23

24 **Condition Approval 8/21/2001**

25 Condition: Emission Control Monitors

26 Emission equipment control monitors shall include but not be limited to  
27 the following:

28 A. Bag house - None required if there are no visible emissions per section  
29 1.A. of the APPROVAL CONDITIONS, and maintenance records  
30 indicate proper maintenance practices and schedules.

31 Periodic Monitoring: Recordkeeping

32 Test Method: Not specified.

33 Test Frequency: Not applicable.

34 Required Records: Surveillance checklists and bag house maintenance logs.

35 State-Only: No.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 8/21/2001**

- 2 Condition: General Conditions
- 3 A. Visible Emissions: No visible emissions shall be allowed beyond 100 yards of source.  
4 During periods of high winds, an assessment shall be made to suspend  
5 operations or initiate a more comprehensive plant watering scheme.
- 6 Periodic Monitoring: Visible Emission Surveys.
- 7 Test Method: Not specified.
- 8 Test Frequency: Not applicable.
- 9 Required Records: Results of visible emission surveys.
- 10 State-Only: No.
- 11 Calculation Model: Not applicable.

12 **Condition Approval 3/12/2003**

- 13 Condition: Diesel Fuel Oil Boiler
- 14 1. A 4.4 MMBtu diesel fuel oil boiler will be operated.
- 15 2. The diesel fuel sulfur content will be less than or equal to 0.05% S, by  
16 weight.
- 17 3. Operation of the boiler is limited to 2000 hours per year.
- 18 4. Good combustion engineering practices shall be followed, including  
19 adherence to the boiler manufacturer's specification for operation,  
20 maintenance, and combustion control.
- 21 5. Specific combustion feed gas ratios, including the fuel-air ratio,  
22 monitoring, startup and shutdown procedures shall be followed to  
23 maximize combustion efficiency and minimize discharge of pollutants  
24 into the atmosphere.
- 25 Periodic Monitoring: Recordkeeping
- 26 Test Method: Not specified.
- 27 Test Frequency: Not applicable.
- 28 Required Records: 1. Manufacturer's specifications for operation, maintenance, and  
29 combustion control.
- 30 2. Records of operating hours.
- 31 3. Records of fuel specification (sulfur content).
- 32 4. Records of good combustion engineering practices and operating  
33 procedures.
- 34 State-Only: No.
- 35 Calculation Model: Not applicable.
- 36

1 **1.4.16 Discharge Point: E-282ED 001**

2 200E Area, Emergency Fire Pump Generators

3 Requirement Citation (WAC or Order Citation): NWP-96-1

4 **Condition Approval 4/30/1996**

5 Condition: Engine E shall operate no more than 350 hours per year.

6 Periodic Monitoring: Recordkeeping.

7 Test Method: Not specified.

8 Test Frequency: Not applicable.

9 Required Records: Maintain records showing all hours of operation.

10 State-Only: No.

11 Calculation Model: Not applicable.

12 **Condition Approval 4/30/1996**

13 Condition: NO<sub>x</sub> 75.5 pounds per hour NO<sub>x</sub>.

14 Periodic Monitoring: Recordkeeping & average fuel consumption rate determination shall be  
15 performed at least once per 12 months.

16 Test Method: EPA Method 7A of 40 CFR 60, Appendix A.

17 Test Frequency: Not applicable.

18 Required Records: 1. Monthly fuel burned (this calculation is based on fuel added to supply  
19 tank).

20 2. Hours of operation logged.

21 State-Only: No.

22 Calculation Model: 2B.

23 **Condition Approval 4/30/1996**

24 Condition: Engine E shall burn only No. 2 fuel oil with sulfur content no more than  
25 0.05 weight percent.

26 Periodic Monitoring: Recordkeeping for compliance with condition.

27 Test Method: Not specified.

28 Test Frequency: Not applicable.

29 Required Records: Vendor documentation of fuel purchase from retail outlet (i.e., for use in  
30 motor vehicles, see 40 CFR 80), or fuel analysis once per year showing  
31  $\leq 0.05\text{wt}\%$  sulfur.

32 State-Only: No.

33 Calculation Model: Not applicable.

34

- 1 **Condition Approval 4/30/1996**
- 2 Condition: Opacity 10 %.
- 3 Periodic Monitoring: Section 2.1, Tier 1.
- 4 Frequency: At least once per quarter, if operates.
- 5 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.
- 6 Test Frequency: Not applicable.
- 7 Required Records: Results of visible emissions survey or records of visual determination of
- 8 the opacity.
- 9 State-Only: No.
- 10 Calculation Model: Not applicable.
- 11

- 1 **1.4.17 Discharge Point: E-282WD 001**  
2 200W Area, Generators  
3 Requirement Citation (WAC or Order Citation): NWP-96-1  
4 **Condition Approval 4/30/1996**  
5 Condition: 10 % Opacity.  
6 Periodic Monitoring: Section 2.1, Tier 1  
7 Frequency: At least once per quarter, if operates.  
8 Test Method: EPA Method 9 of 40 CFR 60, Appendix A.  
9 Test Frequency: Not applicable.  
10 Required Records: Results of visible emissions survey or records of visual determination of  
11 the opacity.  
12 State-Only: No.  
13 Calculation Model: Not applicable.  
14 **Condition Approval 4/30/1996**  
15 Condition: NO<sub>x</sub> 42 pounds per hour.  
16 Periodic Monitoring: Recordkeeping & average fuel consumption rate determination shall be  
17 performed at least once per 12 months.  
18 Test Method: EPA Method 7A of 40 CFR 60, Appendix A.  
19 Test Frequency: Not applicable.  
20 Required Records: 1. Monthly fuel burned (this calculation is based on fuel added to supply  
21 tank).  
22 2. Hours of operation logged.  
23 State-Only: No.  
24 Calculation Model: 2B.  
25 **Condition Approval 4/30/1996**  
26 Condition: Engine W shall burn only No. 2 fuel oil with sulfur content no more  
27 than 0.05 weight percent.  
28 Periodic Monitoring: Recordkeeping for compliance with condition.  
29 Test Method: Not specified.  
30 Test Frequency: Not applicable.  
31 Required Records: Vendor documentation of fuel purchase from retail outlet (i.e., for use in  
32 motor vehicles, see 40 CFR 80), or fuel analysis once per year showing  
33  $\leq 0.05$  wt% sulfur.  
34 State-Only: No.  
35 Calculation Model: Not applicable.  
36

1 **Condition Approval 4/30/1996**

2 Condition: Engine W shall operate no more than 350 hours per year.

3 Periodic Monitoring: Recordkeeping.

4 Test Method: Not specified.

5 Test Frequency: Not applicable.

6 Required Records: Maintain records showing all hours of operation.

7 State-Only: No.

8 Calculation Model: Not applicable.

9

1 **1.4.18 Discharge Point: Emergency Diesel Generators**

2 300 Area, Generators

3 Requirement Citation (WAC or Order Citation): DE02NWP-001

4 **Condition Approval 1/15/2002**

5 Condition: Total Emission Limits

6 A. The activities described in the Notice of Construction application  
7 will be permitted without additional control technologies required,  
8 provided that the total emissions from all activities will not result in an  
9 exceedance of WAC 173-460 ASILs.

10 B. A new Notice of Construction will be required, if total emissions of  
11 toxic air pollutants exceed the Small Quantity Emission Rates, unless  
12 dispersion modeling demonstrates that emissions would continue to result  
13 in concentrations less than the ASILs. Results of any such dispersion  
14 modeling demonstrations/calculations will be maintained on file and made  
15 available upon inspection.

16 C. A new NOC also is required if total emissions of criteria pollutants  
17 would exceed the WAC 173-400-110 thresholds.

18 Periodic Monitoring: Analyze each proposed change to determine if emissions would exceed  
19 an ASIL or NSR threshold.

20 Test Method: Not specified.

21 Test Frequency: Not applicable.

22 Required Records: Results of analyses.

23 State-Only: NSR thresholds – No.  
24 ASILs - Yes.

25 Calculation Model: Not applicable.

26 **Condition Approval 1/15/2002**

27 Condition: Emissions Control

28 SO<sub>x</sub> emissions will be controlled through use of #2 Diesel Fuel with sulfur  
29 content less than 0.5%.

30 Periodic Monitoring: Recordkeeping.

31 Test Method: Not specified.

32 Test Frequency: Per fuel shipment.

33 Required Records: Vendor documentation or fuel analysis showing sulfur content < 0.5%.

34 State-Only: No.

35 Calculation Model: Not applicable.  
36

1 **Condition Approval 1/15/2002**

2 Condition: Monitoring and Recordkeeping

3 Specific records shall be kept on-site by the Permittee and made available  
4 for inspection by Ecology upon request. The records shall be organized in  
5 a readily accessible manner and cover a minimum of the most recent sixty  
6 (60) month period. The records to be kept shall include the following:

7 A. Maintain records of the hours of operation.

8 Periodic Monitoring: Recordkeeping.

9 Test Method: Not specified.

10 Test Frequency: Not applicable.

11 Required Records: 1. Hours of operation

12 2. Fuel consumption.

13 State-Only: No

14 Calculation Model: Not applicable.

15

1 **1.4.19 Discharge Point: P-2025E ETF**

2 200E Area, Effluent Treatment

3 Requirement Citation (WAC or Order Citation): WAC 173-460-070, DE07NWP-003  
4 (6/6/2007), Amendment 1 (8/7/2007) and Amendment 2 (9/27/2007),  
5 Revision 1 (8/10/2010)

6 **Condition Approval 6/6/2007 (DE07NWP-003)**

7 Condition: Visible emissions from the ETF stack (Figure 1 of Order DE07NWP-003,  
8 Rev. 1) shall not exceed five percent (5%).

9 Periodic Monitoring: Section 2.1, Tier 3

10 Test Method: Not specified.

11 Test Frequency: Not applicable.

12 Required Records: As required in AOP Attachment 2 for maintaining abatement control  
13 technology.

14 State-Only: No.

15 Calculation Model: Not applicable.

16 **Condition Approval 6/6/2007 (DE07NWP-003)**

17 Condition: Volatile Organic Compound (VOC) emissions from the ETF (Figure 1 of  
18 Order DE07NWP-003) shall not exceed 0.55 gram per cubic meter ( $\text{g}/\text{m}^3$ )  
19 at standard conditions or 0.50 gram per minute ( $\text{g}/\text{min}$ ).

20 Periodic Monitoring: Initial compliance verified by EPA Method 18 of 40 CFR 60, Appendix A  
21 in 1996 (NOC-93-3).

22 Test Method: EPA Method 18 or 25A of 40 CFR 60, Appendix A.

23 Test Frequency: Not applicable (initial test condition for construction).

24 Required Records: Testing Results of 1996 EPA Method.

25 State-Only: No.

26 Calculation Model: Not applicable.

27 **Condition Approval 6/6/2007 (DE07NWP-003)**

28 Condition: Volatile Organic Compound (VOC) emissions from ETF operations shall  
29 not exceed 4,000 lb/yr. [WAC 173-400-110(5)(b)]

30 Periodic Monitoring: Material emission estimates.

31 Test Method: Calculations and record-keeping.

32 Test Frequency: Annual.

33 Required Records: Records of data and calculations for the VOC emissions from ETF  
34 operations.

35 State-Only: No.

36 Calculation Model: Not applicable.

37

1 **Condition Approval 6/6/2007 (DE07NWP-003)**

2 Condition: Particulate matter emissions shall not exceed 1,500 lb/yr.  
3 Periodic Monitoring: HEPA filtration of ETF stack gases  
4 Test Method: See Required Records.  
5 Test Frequency: Not applicable.  
6 Required Records: Maintenance and operating records of all filtration systems.  
7 State-Only: No.  
8 Calculation Model: Not applicable.

9 **Condition Approval 6/6/2007 (DE07NWP-003) and 9/27/2007 (Amendment 2), Revision 1**  
10 **(8/10/2010)**

11 Condition: All TAPs in the NOC applications and identified in Table 1 of  
12 DE07NWP-003 Amendment 2 (9/27/2007) and Revision 1 (8/10/2010),  
13 shall not exceed ASILs. [WAC 173-460-070]  
14 Periodic Monitoring: Waste analysis records (see Required Records).  
15 Test Method: Not specified.  
16 Test Frequency: Not applicable.  
17 Required Records: (1) Laboratory or waste analysis results for TAPs identified in Table 1 of  
18 DE07NWP-003 Amendment 2 (9/27/2007) and Revision 1 (8/10/2010),  
19 and  
20 (2) Waste stream influent volumetric records.  
21 State-Only: Yes.  
22 Calculation Model: Not applicable.

23 **Condition Approval 6/6/2007 (DE07NWP-003)**

24 Condition: All newly identified TAPs shall not exceed ASILs (with assessment of  
25 ASIL compliance). [WAC 173-460-070]  
26 Periodic Monitoring: Assessment of ASIL compliance (see Required Records).  
27 Test Method: Not specified.  
28 Test Frequency: Not applicable.  
29 Required Records: (1) Report laboratory or waste analysis result of newly identified TAPs  
30 within 90 days of completion of analysis, and  
31 (2) Waste stream influent volumetric records.  
32 State-Only: Yes.  
33 Calculation Model: Not applicable.

34

1 **1.4.20 Discharge Point: P-2706T 001**

2 200W Area, T Plant Complex

3 Requirement Citation (WAC or Order Citation): DE01NWP-002 Revision 1 (6/29/2006)

4 **Condition Approval 6/29/2006**

5 Condition: Visible Emissions

6 A. Visible emissions from any T-Plant Complex stack will not exceed  
7 limits specified in WAC 173-400-040(2).

8 Periodic Monitoring: Section 2.1, Tier 3.

9 Test Method: EPA Method 9 of 40 CFR 60, Appendix A

10 Test Frequency: Not applicable (when visible emissions are observed).

11 Required Records: Maintenance records.

12 State-Only: No.

13 Calculation Model: Not applicable.

14 **Condition Approval 6/29/2006**

15 Condition: Emission Limits

16 A. VOC emission will not exceed 3.5 tons per year.

17 B. All TAPs, as submitted in the Permittee's Notice of Construction  
18 Application, will be below their respective ASIL.

19 Periodic Monitoring: Analyze each proposed changed to determine if emissions would exceed  
20 Emission limits.

21 Test Method: Section 3.0 of the Approval Order DE01NWP-002 Revision 1

22 Test Frequency: Section 3.0 of the Approval Order DE01NWP-002 Revision 1

23 Required Records: Results of analyses.

24 State-Only: No.

25 Calculation Model: Not applicable.

26

1 **1.4.21 Discharge Point: P-296A042-001<sup>1</sup>**

2 200E Area, 241-AY and 241-AZ Tank Farms - Ventilation Upgrades

3 Requirement Citation (WAC or Order Citation): NOC 94-07 (8/29/1994), Rev 1 (12/22/1997),  
4 Rev 2 (10/25/1999), Rev 3 (5/7/2008), and Amendment A (3/26/2013)

5 **Condition Approval 5/7/2008 (Rev 3)**

6 Condition: Visible emissions at the stack shall not exceed 5%. Should visible  
7 emissions be observed, the excess emissions shall be discontinued  
8 by removing the emission unit from service and Health notified  
9 immediately.

10 Periodic Monitoring: Tier 3 requirements (Section 2.1, Visible Emission Surveys).

11 Test Method: Maintain abatement control technology (AOP Attachment 2).

12 Test Frequency: Not applicable.

13 Required Records: Operation logs or records.

14 State-Only: Yes.

15 Calculation Model: Not specified.

16 **Condition Approval 5/7/2008 (Rev 3)**

17 Condition: The primary tank ventilation exhauster system for the 241-AY and  
18 241-AZ double-shell tank farms shall not exceed daily average  
19 flow rates of 1,000 ft<sup>3</sup>/min (standard temperature and pressure).

20 Periodic Monitoring: Flow calculations based on stack gas flow and temperature  
21 measurement.

22 Test Method: Flow calculations.

23 Test Frequency: Semi-annually.

24 Required Records: Calibrations and calculations of exhauster system stack gas flow  
25 and temperature measurement devices.

26 State-Only: Yes.

27 Calculation Model: None specified.

28

---

<sup>1</sup> Per Approval Order DE11NWP-001, NOC Approval Order 94-07 will become obsolete and void when the new 241-AY/AZ ventilation system covered by the new Approval Order DE11NWP-001 becomes fully operational.

1 **Condition Approval 5/7/2008 (Rev 3) and 3/26/2013 (Amd A)**

- 2 Condition: All toxic air pollutants (TAPs) shall be below their respective ASIL or  
3 Screening Level of Table 1 of the most updated NOC approval order.  
4 Periodic Monitoring: T-BACT compliance (HEME, HEPA, exhauster flow rate, etc.).  
5 Test Method: T-BACT compliance.  
6 Test Frequency: Not applicable.  
7 Required Records: All monitoring and operations records required for T-BACT compliance.  
8 State-Only: Yes.  
9 Calculation Model: Model 7B (Statement of Basis 3.1.7) or other approved methods.

10 **Condition Approval 3/26/2013 (Amd A)**

- 11 Condition: Emissions of ammonia shall not exceed 2.5 lbs/hr from the primary tank  
12 ventilation exhauster system.  
13 Periodic Monitoring: Calculations based on ammonia concentration readings and stack flow  
14 rates.  
15 Test Method: Field instruments, which may include Draeger Tubes.  
16 Test Frequency: Semi-annually.  
17 Required Records: Supporting data and calculations.  
18 State-Only: No.  
19 Calculation Model: Method 5 (Statement of Basis 3.1.4) or other approved methods.

20 **Condition Approval 5/7/2008 (Rev 3)**

- 21 Condition: Emissions of VOCs shall not exceed 0.175 lb/hr from the primary tank  
22 ventilation exhauster system.  
23 Periodic Monitoring: Calculations based on VOC concentration readings and stack flow rate.  
24 Test Method: Field instruments, which may include Draeger Tubes.  
25 Test Frequency: Semi-annually.  
26 Required Records: Supporting data and calculations.  
27 State-Only: No.  
28 Calculation Model: Method 4 (Statement of Basis 3.1.3) or other approved methods.

29

1 **1.4.22 Discharge Point: P-296W004 001**

2 200W Area, Waste Receiving and Processing

3 Requirement Citation (WAC or Order Citation): DE03NWP-002

4 **Condition Approval 5/21/2003**

5 Condition: Emission Controls Monitors: Source data from an Organic Vapor  
6 Analyzer using a Photoionization detector (PID) with at least an 11.7eV  
7 lamp, or other device capable of detecting TAPs, was conducted by the  
8 facility in providing verification of de minimis ( i.e., parts per million  
9 levels) fugitive emissions in the drum storage and NDE/NDA areas. The  
10 results of source test information, conducted on or at the source(s)  
11 locations in lieu of downstream at the stack, have been provided to the  
12 permit writer under separate cover. This information has been determined  
13 to satisfy the previous approval order condition for this source in  
14 performing one-time monitoring to demonstrate TAP emissions are below  
15 the estimates provided in the NOC application and T-BACT analysis for  
16 the drum storage and DNE/NDA areas. As such, no additional sampling  
17 or monitoring will be required under this approval order. The facility will  
18 continue to perform at least once every two years, and make available  
19 upon request or inspection, results from any Industrial Hygiene program  
20 measurements to further demonstrate compliance with limits contained  
21 herein. The test plan for conducting these measurements shall also be  
22 maintained on file and made available upon request and/or inspection by  
23 Ecology.

24 Periodic Monitoring: IH Program measurements as specified in NOC, including alternative  
25 methods.

26 Test Method: Not specified.

27 Test Frequency: Once every two years.

28 Required Records: Test plan.  
29 Measurement results.

30 State-Only: Yes.

31 Calculation Model: Not applicable.  
32

1 **Condition Approval 5/21/2003**

- 2 Condition: Total Emission Limits: For toxic compounds not included in the T-BACT  
3 analysis, the emission limits shall be the Small Quantity Emission Rate  
4 (SQER). A modification submittal of a Notice of Construction (NOC)  
5 application will be required if the SQER limit would be exceeded for  
6 compounds not addressed under the T-BACT assessment. The  
7 calculation/measurement methods described in section 4 of the NOC  
8 Approval Order DE03NWP-002, or other method as approved by  
9 Ecology, may be used to document compliance with the SQER limit.
- 10 Periodic Monitoring: PID or other device capable of detecting TAPs measurements.
- 11 Test Method: Not specified.
- 12 Test Frequency: Once every 2 years.
- 13 Required Records: 1. IH Test Plan.  
14 2. Results of measurements.
- 15 State-Only: Yes.
- 16 Calculation Model: Not applicable.

17 **Condition Approval 5/21/2003**

- 18 Condition: An internal annual assessment of the facility container tracking system,  
19 such as SWITS of the data management system (DMS), shall be  
20 conducted by the facility to document/verify de minimus emissions from  
21 the source. This assessment will be maintained on file, made available for  
22 Ecology inspector requests, and compiled into emission estimates that will  
23 be reported annually beginning as part of the Calendar Year 2003  
24 nonradioactive inventory of airborne emissions.
- 25 Periodic Monitoring: Recordkeeping; Comparison to threshold.
- 26 Test Method: Not specified.
- 27 Test Frequency: Annually.
- 28 Required Records: 1. Throughput records, SWITs query evaluation if > 1,000 drums.  
29 2. Nonradioactive air emissions inventory report required by WAC 173-  
30 400-105.
- 31 State-Only: Yes.
- 32 Calculation Model: Not applicable.
- 33

1 **Condition Approval 5/21/2003**

- 2 Condition: Total Emission Limits: The processing and repackaging activities  
3 described in the Notice of Construction application will be permitted  
4 without requiring additional emission controls, provided that the emissions  
5 from the stack, venting the 100 and 300 Series Waste Process Lines, the  
6 200 and 400 Restricted Waste process Lines, the process area, and the  
7 storage areas are maintained below the level described in and meeting T-  
8 BACT (according to WRAP Module 1 Best Available Control Technology  
9 Assessment, WHC-SD-W026-TI-005, January 1993, Westinghouse  
10 Hanford Company, Richland, Washington).
- 11 Periodic Monitoring: Recordkeeping.
- 12 Test Method: Not specified.
- 13 Test Frequency: Not applicable.
- 14 Required Records: Documentation implementing T-BACT.
- 15 State-Only: Yes.
- 16 Calculation Model: Not applicable.
- 17

1 **1.4.23 Discharge Point: P-WTP-001**

2 200E Area, Vitrification

3 Requirement Citation (WAC or Order Citation): WAC 173-400-040(9)(a); DE02NWP-002,  
4 Revision 2; and PSD-02-01, Amendment 3.

5 **Condition Approval 11/13/2006**

6 Condition: FUGITIVE DUST CONTROL

7 9.8 Construction Phase Fugitive Dust Control Plan(s), prepared using EPA  
8 and Ecology guidelines, shall be developed and implemented. The plan(s)  
9 shall address fugitive dust control at the WTP construction site adjacent to  
10 the Hanford 200 Area and the Material Handling Facility established upon  
11 property leased from the Port of Benton. A copy of this plan(s) shall be  
12 maintained on-site at all times in a place known to facility employees that are  
13 responsible for complying with the requirements contained therein and shall  
14 be retrievable by those employees at all times when activities regulated by the  
15 documents are occurring. These documents shall be made available to  
16 Ecology upon request

17 Periodic Monitoring: Not applicable. The owner or operator shall take reasonable precautions  
18 (such as pre-job planning) to prevent fugitive dust from becoming  
19 airborne.

20 Test Method: Construction Phase Fugitive Dust Control Plan

21 Test Frequency: During construction or routine/*ad hoc* dust suppression

22 Required Records: Fugitive Dust Control Plan and records of actions taken to minimize  
23 fugitive dust

24 State-Only: No.

25 Calculation Model: Not applicable.

26

27 **Condition Approval 11/24/2003**

28 Condition: 2.1 Opacity from each exhaust stack from process facilities (Pretreatment,  
29 HLW, and LAW) shall not exceed 5%, other facility stacks shall not  
30 exceed 10 percent, over a 6 minute average as measured by EPA  
31 Reference Method 9 of 40 CFR 60, Appendix A, or an equivalent method  
32 approved in advance by Ecology. A certified opacity reader shall read and  
33 record the opacity concurrent with any source testing.

34 Periodic Monitoring: For Pretreatment, HLW, and LAW, See Section 2.1, Tier 3.

35 Test Method: EPA Reference Method 9 of 40 CFR 60, Appendix A.

36 Test Frequency: Initial test.

37 Required Records: Test Records.

38 State-Only: No.

39 Calculation Model: Not applicable.

40

1 **Condition Approval 11/24/2003**

2 Condition: 2.1 Opacity from each exhaust stack from process facilities (Pretreatment,  
3 HLW, and LAW) shall not exceed 5%, other facility stacks shall not  
4 exceed 10 percent, over a 6 minute average as measured by EPA  
5 Reference Method 9 of 40 CFR 60, Appendix A, or an equivalent method  
6 approved in advance by Ecology. A certified opacity reader shall read and  
7 record the opacity concurrent with any source testing.

8 Periodic Monitoring: For boilers, generators, and fire pumps, See Section 2.1, Tier 1.

9 Test Method: EPA Reference Method 9 of 40 CFR 60, Appendix A.

10 Test Frequency: At least once per calendar quarter.

11 Required Records: Test records.

12 State-Only: No.

13 Calculation Model: Not applicable.

14

15 **Condition Approval 11/24/2003**

16 Condition: 2.1 Opacity from each exhaust stack from process facilities (Pretreatment,  
17 HLW, and LAW) shall not exceed 5%, other facility stacks shall not  
18 exceed 10 percent, over a 6 minute average as measured by EPA  
19 Reference Method 9 of 40 CFR 60, Appendix A, or an equivalent method  
20 approved in advance by Ecology. A certified opacity reader shall read and  
21 record the opacity concurrent with any source testing.

22 Periodic Monitoring: For other facility stacks, See Section 2.1, Tier 3.

23 Test Method: EPA Reference Method 9 of 40 CFR 60, Appendix A.

24 Test Frequency: Initial test.

25 Required Records: Test records.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **Condition Approval 11/24/2003**

2 Condition: 2.2; PSD-02-01, Cond. 2. All boilers, generators and the diesel fire pump  
3 shall be fired on Ultra-Low Sulfur Fuel (ULSF). ULSF means natural gas,  
4 propane, or fuel oil with a sulfur content of 0.0015% or less. Compliance  
5 shall be monitored by maintaining and submitting reports of fuel  
6 purchases.

7 Periodic Monitoring: Recordkeeping and Semiannual report.

8 Test Method: Not Specified.

9 Test Frequency: Not Applicable.

10 Required Records: Records of monthly fuel purchases and use and an annual certification,  
11 from the fuel distributor, stating the sulfur content of the fuel that was  
12 supplied. (PSD-02-01 Cond 17.3)

13 State-Only: No.

14 Calculation Model: Not applicable.

15

16 **Condition Approval 11/10/2005**

17 Condition: 2.3; PSD-02-01, Cond. 8. The operation of the six steam generating  
18 boilers shall not exceed an annual aggregated fuel consumption limit of  
19 13,400,000 gallons per year summed daily for the previous 365 days.

20 Periodic Monitoring: Recordkeeping and Semiannual report of consumption over 12 months.

21 Test Method: Not Specified.

22 Test Frequency: Daily.

23 Required Records: Maintain fuel purchase records (PSD-02-01, Cond 17.3).

24 State-Only: No.

25 Calculation Model: Not applicable.

26

27 **Condition Approval 4/4/2013**

28 Condition: 2.4; PSD-02-01, Cond. 11, Cond.13. The emergency generator shall not  
29 operate for more than 164 hours per year on a 12 month rolling summation  
30 calculated once per month. Compliance shall be monitored by installing  
31 and operating non-resettable totalizers on each generator.

32 Periodic Monitoring: Recordkeeping.

33 Test Method: Not Specified.

34 Test Frequency: Monthly.

35 Required Records: Records showing all hours of operation.

36 State-Only: No.

37 Calculation Model: Not applicable.

38

1 **Condition Approval 4/4/2013**

2 Condition: 2.4; PSD-02-01, Cond. 13. The emergency turbine generators shall not  
3 operate for more than 164 hours per year on a 12 month rolling summation  
4 calculated once per month. Compliance shall be monitored by installing  
5 and operating non-resettable totalizers on each generator.

6 Periodic Monitoring: Recordkeeping.

7 Test Method: Not Specified.

8 Test Frequency: Monthly.

9 Required Records: Records showing all hours of operation.

10 State-Only: No.

11 Calculation Model: Not applicable.

12

13 **Condition Approval 4/4/2013**

14 Condition: 2.5; PSD-02-01, Cond. 15. Each of the diesel fire pumps shall not operate  
15 for more than 230 hours per year on a 12 month rolling summation  
16 calculated once per month. Compliance shall be monitored by installing  
17 and operating a non-resettable totalizer on the fire pump.

18 Periodic Monitoring: Recordkeeping.

19 Test Method: Not Specified.

20 Test Frequency: Not Applicable.

21 Required Records: Monthly.

22 State-Only: No.

23 Calculation Model: Not applicable.

24

1 **Condition Approval 11/24/2003**

- 2 Condition: 3.2 A new NOC will be required, if total emissions of toxic air pollutants  
3 exceed the values specified in the tables in Attachment 1 of the Notice of  
4 Construction Application. These values shall be confirmed by emission  
5 calculations, for indicator constituents, derived from waste  
6 characterization data obtained through implementation of the Ecology  
7 approved Regulatory Data Objectives Supporting Tank Waste  
8 Remediation System Privatization Project (PNNL-12040). The mass feed  
9 rates for the indicator constituents will be verified to be less than or equal  
10 to the mass feed rates used in the Integrated Emissions Baseline Report for  
11 the Hanford Tank Waste Treatment and Immobilization Plant (24590-  
12 WTP-RPT-PO-03-008, Rev. 0). Results of any such calculations will be  
13 maintained on file and made available upon inspection/request.
- 14 Periodic Monitoring: Recordkeeping
- 15 Test Method: Not Specified.
- 16 Test Frequency: At least once per calendar year.
- 17 Required Records: 1. Calculations of TAPs emissions derived from waste feed  
18 characterization.  
19 2. Calculations of ammonia emissions from LAW and HLW.
- 20 State-Only: Yes.
- 21 Calculation Model: Not applicable.

22

23 **Condition Approval 7/8/2002**

- 24 Condition: 2.3 A new NOC also is required if total emissions of any criteria  
25 pollutants, derived from calculations/monitoring, would exceed the  
26 estimates listed under the Emissions section of this order.
- 27 Periodic Monitoring: Recordkeeping
- 28 Test Method: Not Specified.
- 29 Test Frequency: At least once per calendar year.
- 30 Required Records: Calculations of criteria pollutants.
- 31 State-Only: Yes.
- 32 Calculation Model: Not applicable.

33

1 **Condition Approval 11/24/2003**

- 2 Condition: 4.1; PSD-02-01, Conditions 3.2, 4.2, 5.2, 6.2, and 7.2. Within 180-days of  
3 achieving the optimized feed rate of simulant at which the facilities will be  
4 operated, the permittee shall demonstrate initial compliance through a  
5 performance demonstration conducted per an Ecology approved  
6 Performance Demonstration Plan. The permittee shall utilize the  
7 Performance Demonstration Plan requirements identified in the Dangerous  
8 Waste Portion of the Resource Conservation and Recovery Act Permit for  
9 the Treatment, Storage, and Disposal of Dangerous Waste Hanford Tank  
10 Waste Treatment and Immobilization Plant (DWP), condition III.10.H.5.f  
11 (LAW) and III.10.J.5.f (HLW). Ecology shall be notified at least 30 days  
12 prior to the test and invited to participate in the test activities at least one  
13 week prior to testing.
- 14 Periodic Monitoring: Recordkeeping.
- 15 Test Method: Not specified.
- 16 Test Frequency: Not applicable.
- 17 Required Records: 1. Notification Documentation.  
18 2. Performance Demonstration Plan.
- 19 State-Only: Yes.
- 20 Calculation Model: Not applicable.

21  
22 **Condition Approval 11/24/2003**

- 23 Condition: 4.2 Testing per the initial compliance testing identified in 3.1 shall be  
24 conducted in accordance with the frequency identified in the DWP,  
25 condition III.10.I.1.h (LAW) and II.10.K.1.h (HLW).
- 26 Periodic Monitoring: Recordkeeping, measurements, and emission calculations.
- 27 Test Method: As stated in DWP conditions III.10.I.1.h (LAW) and III.10.K.1.h (HLW).
- 28 Test Frequency: At startup and at least once every 5 years thereafter.
- 29 Required Records: Test records.
- 30 State-Only: Yes.
- 31 Calculation Model: Not applicable.
- 32

1 **Condition Approval 11/24/2003; 11/12/03 (PSD)**

2 Condition: 4.5; PSD-02-01, Conditions 3-7, 9-10, 12, 14. Within 180 days of initial  
3 startup, boiler, emergency generator, and process facility source testing  
4 shall be conducted according to the following methods, unless an alternate  
5 method has been proposed in writing by the permittee and approved by  
6 Ecology in writing in advance of the testing.

Tested Pollutant	Reference Method (40 CFR 60 Appendix A unless otherwise defined), as of 7/1/2000
Carbon Monoxide	Method 10
Nitrogen Oxides	Method 7E
Volatile Organic Compounds	Method 18
Sulfur Dioxide	Method 6C
Visible Emissions	Method 9
Particulate Matter	40 CFR 60 Appendix A Method 5; 40 CFR 51 Appendix M Method 201 or 201A for the front half analysis and 40 CFR 51 Appendix M Method 202 for the back half

7 Periodic Monitoring: Recordkeeping, measurements, and emission calculations.

8 Test Method: As stated in condition.

9 Test Frequency: Initial startup and every 5 years thereafter.

10 Required Records: Test Records.

11 State-Only: No.

12 Calculation Model: Not applicable.

13

1 **Condition Approval 11/24/2003**

2 Condition: 4.6 During the boiler source testing, a direct-reading measurement device  
3 for carbon monoxide with a minimum measurement accuracy of five  
4 percent or less shall take readings according to methods proposed by the  
5 permittee and approved by Ecology in writing in advance of the testing.  
6 The direct-reading instrument shall be calibrated for future use, using the  
7 results of the source testing.

8 Periodic Monitoring: Recordkeeping, measurements, and emission calculations.

9 Test Method: Portable emissions analyzer calibrated during most recent source test.

10 Test Frequency: Initial startup.

11 Required Records: Logs of boiler tune-ups and significant boiler maintenance activities will  
12 be maintained.

13 State-Only: Yes.

14 Calculation Model: Not applicable.

15

16 **Condition Approval 11/24/2003**

17 Condition: 5.0 Emissions from boilers and generators shall be monitored for CO, and  
18 Oxygen by means of a portable emissions analyzer (direct-reading  
19 measurement device) at initial startup and after routinely scheduled  
20 maintenance activities and burner/control adjustments such as fuel/air  
21 metering ratio control and oxygen trim control.

22 Periodic Monitoring: Recordkeeping, measurements, and emission calculations.

23 Test Method: Portable emissions analyzer calibrated during most recent source test.

24 Test Frequency: Initial startup and after routinely scheduled maintenance activities and  
25 burner/control adjustments such as fuel/air metering ratio control and  
26 oxygen trim control.

27 Required Records: Logs of boiler tune-ups and significant boiler maintenance activities will  
28 be maintained.

29 State-Only: Yes.

30 Calculation Model: Not applicable.

31

- 1 **Condition Approval 10/10/2005 Steam Generating Boilers, Diesel Fire Pumps, Backup**  
2 **Emergency Generators**
- 3 Condition: Approval Condition 2  
4 Use Ultra-low sulfur fuel  $\leq 0.0015\%$  by wt.
- 5 Periodic Monitoring: Not applicable.  
6 Test Method: Recordkeeping  
7 Test Frequency: Semiannually  
8 Required Records: Fuel purchase records and a written statement in each semiannual report of  
9 the type of fuel used.
- 10 State-Only: No.  
11 Calculation Model: Not applicable.  
12
- 13 **Condition Approval 10/10/2005 Pretreatment Plant**
- 14 Condition: Approval Condition 3.  
15  $PM_{10} \leq 0.02$  g/dscf 24- hour average **OR** 0.456 lb/hr 24-hour average
- 16 Periodic Monitoring: Not applicable.  
17 Test Method: 40 CFR 60 Appendix A, Method 5, 40 CFR 51 Appendix M Method  
18 201 **OR** 201A for the front half analysis and 40 CFR 51 Appendix M  
19 Method 202 for the back half.
- 20 Test Frequency: 5 years  
21 Required Records: Calculations based on testing results and hours of operation.  
22 State-Only: No.  
23 Calculation Model: Not applicable  
24
- 25 **Condition Approval 10/10/2005 LAW Vitrification Plant**
- 26 Condition: Approval Condition 5  
27  $PM_{10} \leq 0.36$  lb/hr at 21% O<sub>2</sub>, 24-hr average.
- 28 Periodic Monitoring: Not applicable.  
29 Test Method: 40 CFR 60 Appendix A, Method 5, 40 CFR 51 Appendix M Method  
30 201 **OR** 201A for the front half analysis and 40 CFR 51 Appendix M  
31 Method 202 for the back half.
- 32 Test Frequency: 5 years  
33 Required Records: Calculations based on testing results and hours of operation.  
34 State-Only: No.  
35 Calculation Model: Not applicable  
36

1 **Condition Approval 10/10/2005 LAW Vitrification Plant**  
2 Condition: Approval Condition 4  
3 NO<sub>X</sub> ≤ 477 ppm dry per volume at 21% O<sub>2</sub>, 24 hr average **OR** 200.1  
4 lb/day averaged over 30 consecutive days  
5 Periodic Monitoring: Not applicable.  
6 Test Method: 40 CFR 60 Appendix A, Method 7E  
7 Test Frequency: Continuous; using a Continuous Emission Monitor (CEM) for NO<sub>X</sub> and a  
8 flow meter  
9 Required Records: Testing results CEM for NO<sub>X</sub> and flow meter, and CEM performance  
10 evaluation.  
11 State-Only: No.  
12 Calculation Model: Not applicable

13  
14 **Condition Approval 10/10/2005 HLW Vitrification Plant**  
15 Condition: Approval Condition 7  
16 PM<sub>10</sub> ≤ 0.135 lb/hr at 21% O<sub>2</sub>, when averaged over 24 consecutive hours.  
17 Periodic Monitoring: Not applicable.  
18 Test Method: 40 CFR 60 Appendix A, Method 5, 40 CFR 51 Appendix M Method  
19 201 **OR** 201A for the front half analysis and 40 CFR 51 Appendix M  
20 Method 202 for the back half.  
21 Test Frequency: 5 years  
22 Required Records: Calculations based on testing results and hours of operation.  
23 State-Only: No.  
24 Calculation Model: Not applicable

25  
26 **Condition Approval 10/10/2005 HLW Vitrification Plant**  
27 Condition: Approval Condition 6  
28 NO<sub>X</sub> 352 ppm<sub>dv</sub> at 21% O<sub>2</sub>, over a 24 hr averaging period **OR** 23.3 lb/day  
29 averaged over 30 consecutive days.  
30 Periodic Monitoring: Not applicable.  
31 Test Method: 40 CFR 60 Appendix A, Method 7E, CEM  
32 Test Frequency: CEM Continuous  
33 Required Records: Testing results CEM for NO<sub>X</sub> and flow meter, and CEM performance  
34 evaluation.  
35 State-Only: No.  
36 Calculation Model: Not applicable

37

- 1 **Condition Approval 10/10/2005 Steam Boilers**  
2 Condition: Approval Condition 8  
3 Maximum aggregated fuel consumption for steam boilers 1, 2, 3, 4, 5, and  
4 6 shall not exceed 13,400,000 gallons per year  
5 Periodic Monitoring: Not applicable.  
6 Test Method: Verification of fuel purchases.  
7 Test Frequency: Semiannual  
8 Required Records: Fuel purchase records and a written statement in each semiannual report of  
9 the total fuel consumption over the previous 12 months.  
10 State-Only: No.  
11 Calculation Model: Not applicable  
12  
13 **Condition Approval 10/10/2005 Steam Boilers**  
14 Condition: Approval Condition 10  
15 PM or PM<sub>10</sub> from each steam boiler  $\leq 0.02$  lb/MMBtu **OR** 1.0 lb/hr  
16 averaged over 24 consecutive hours.  
17 Periodic Monitoring: Not applicable.  
18 Test Method: 40 CFR 60 Appendix A, Method 5, 40 CFR 51 Appendix M Method  
19 201 **OR** 201A for the front half analysis and 40 CFR 51 Appendix M  
20 Method 202 for the back half  
21 Test Frequency: 5 years  
22 Required Records: Testing results and hours of operation.  
23 State-Only: No.  
24 Calculation Model: Not applicable  
25  
26 **Condition Approval 10/10/2005 Steam Boilers**  
27 Condition: Approval Condition 9  
28 NO<sub>x</sub>  $\leq 0.09$  lb/MMBtu 3% O<sub>2</sub>, **OR** 4.52 lb/hr averaged over 24  
29 consecutive hours  
30 Periodic Monitoring: Not applicable.  
31 Test Method: EPA Method 7E of 40 CFR 60 Appendix A  
32 Test Frequency: 5 years  
33 Required Records: Calculations based on testing results and hours of operation.  
34 State-Only: No.  
35 Calculation Model: Not applicable  
36

1 **Condition Approval 10/10/2005 Steam Boilers**

- 2 Condition: Approval Condition 2  
3 Use Ultra-low sulfur fuel  $\leq 0.0015\%$  by wt.  
4 Periodic Monitoring: Not applicable.  
5 Test Method: Recordkeeping  
6 Test Frequency: Semiannually  
7 Required Records: Fuel purchase records  
8 State-Only: No.  
9 Calculation Model: Not applicable.

10

11 **Condition Approval 10/10/2005 Emergency Generators**

- 12 Condition: Approval Condition 2  
13 Use Ultra-low sulfur fuel  $\leq 0.0015\%$  by wt.  
14 Periodic Monitoring: Not applicable.  
15 Test Method: Recordkeeping  
16 Test Frequency: Semiannually  
17 Required Records: Fuel purchase records.  
18 State-Only: No.  
19 Calculation Model: Not applicable.

20

21 **Condition Approval 10/10/2005 Emergency Generators**

- 22 Condition: Approval Conditions 11 and 13  
23 Each Type I emergency generator or turbine generator shall not exceed  
24 164 hours per year when averaged over 12 consecutive months, calculated  
25 once per month.  
26 Periodic Monitoring: Not applicable.  
27 Test Method: Installing and operating a non-resettable totalizer on each generator.  
28 Test Frequency: Semiannually  
29 Required Records: Hours of operation reported in the semiannual report for the previous 6  
30 months and the summation of hours operated over the previous 12 months.  
31 State-Only: No.  
32 Calculation Model: Not applicable.

33

- 1 **Condition Approval 10/10/2005 Emergency Generators**  
2 Condition: Approval Condition 12  
3 NO<sub>x</sub> Type I Generator  $\leq$  391.1 lb/day averaged over 24 consecutive  
4 hours.  
5 Periodic Monitoring: Not applicable.  
6 Test Method: EPA Method 7E of 40 CFR 60, Appendix A  
7 Test Frequency: 5 years  
8 Required Records: Calculations based on testing results and hours of operation.  
9 State-Only: No.  
10 Calculation Model: Not applicable.  
11  
12 **Condition Approval 10/10/2005 Emergency Generators**  
13 Condition: Approval Condition 14  
14 Emissions of NO<sub>x</sub> from the Turbine Generators shall not exceed 69.8  
15 lb/day (each), when averaged over 24 consecutive hours and 164 hours per  
16 year averaged over 12 consecutive months.  
17 Periodic Monitoring: Not applicable.  
18 Test Method: EPA Method 7E of 40 CFR 60, Appendix A  
19 Test Frequency: 5 years  
20 Required Records: Calculations based on testing results and hours of operation.  
21 State-Only: No.  
22 Calculation Model: Not applicable.  
23  
24 **Condition Approval 10/10/2005 Diesel Fire Water Pumps**  
25 Condition: Approval Condition 2  
26 Use Ultra-low sulfur fuel  $\leq$  0.0015% by wt.  
27 Periodic Monitoring: Not applicable.  
28 Test Method: Recordkeeping  
29 Test Frequency: Semiannually  
30 Required Records: Fuel purchase records  
31 State-Only: No.  
32 Calculation Model: Not applicable.  
33

- 1 **Condition Approval 10/10/2005 Diesel Fire Water Pumps**  
2 **Condition:** Approval Condition 15  
3 Hours of operation for each pump shall not exceed 230 hours per year  
4 averaged over 12 consecutive months.  
5 **Periodic Monitoring:** Not applicable.  
6 **Test Method:** Installing and operating a non-resettable totalizer on each generator.  
7 **Test Frequency:** Semiannually  
8 **Required Records:** Written statement in each semiannual report of hours of operation.  
9 **State-Only:** No.  
10 **Calculation Model:** Not applicable.  
11

1 **1.4.24 Discharge Point: Integrated Disposal Facility (IDF)**

2 200E, General Standards

3 Requirement Citation

4 (WAC or Order Citation): WAC 173-400-040(9)(a), DE05NWP-004

5 **Condition Approval 05/31/2005**

6 Condition: FUGITIVE DUST

7 Requires reasonable precautions be taken to prevent fugitive dust from  
8 becoming airborne and to minimize dust generation.

9 Periodic Monitoring: Pre-job planning to determine reasonable control measures.

10 Test Method: Not specified.

11 Test Frequency: Not applicable.

12 Required Records: None listed.

13 State-Only: No.

14 Calculation Model: Not applicable.

15 **Condition Approval 05/31/2005**

16 Condition: FUGITIVE EMISSIONS

17 The permittee shall take reasonable precautions to prevent the release of  
18 air contaminants from any emissions unit engaging in materials handling,  
19 construction, demolition, or any other operation that is a source of fugitive  
20 emissions.

21 Periodic Monitoring: Pre-job planning to determine reasonable control measures.

22 Test Method: Not specified.

23 Test Frequency: Not applicable.

24 Required Records: None listed.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

- 1    **Condition Approval 05/31/2005**
- 2    Condition:            **EMISSION LIMITS FOR WASTE COVERING OPERATIONS**
- 3                            During waste covering operations, aggregate, a mixture of minerals, sand
- 4                            and soil, will be used to cover the waste package at the IDF. Dust control
- 5                            for covering the waste package will consist of watering and/or chemical
- 6                            wetting agents. Waste covering operations will be curtailed during high
- 7                            winds in accordance with abnormal operating procedures for high winds.
- 8                            Prior to long periods of inactivity, an assessment shall be made to
- 9                            implement more comprehensive dust control methods, such as chemical
- 10                           stabilization, on disturbed areas. A reassessment will be made once per
- 11                           week.
- 12   Periodic Monitoring: Recordkeeping.
- 13   Test Method:         Not specified.
- 14   Test Frequency:     Not applicable.
- 15   Required Records:   Daily activity reports, logs, pre-job reviews, management assessments,
- 16                           surveillances or similar documents.
- 17   State-Only:         Yes.
- 18   Calculation Model:  Not applicable.
- 19   **Condition Approval: 05/31/2005**
- 20   Condition:            **EMISSION LIMITS FOR TRAVEL ON UNPAVED ROADS**
- 21                            Surface treatment for dust control will consist of watering and/or
- 22                            chemical stabilization. Minimize vehicle use on unpaved road. Perform
- 23                            regular maintenance of road surface. Reduce vehicle speed limit on
- 24                            unpaved roads.
- 25   Periodic Monitoring: Recordkeeping
- 26   Test Method:         Not specified.
- 27   Test Frequency:     Not applicable.
- 28   Required Records:   Daily activity reports, logs, pre-job reviews, management assessments,
- 29                           surveillances or similar documents.
- 30   State-Only:         Yes.
- 31   Calculation Model:  Not applicable.
- 32

1 **Condition Approval 05/31/2005**

2 Condition: EMISSION LIMITS FOR AGGREGATE COVER COMPACTING  
3 ACTIVITIES

4 A water truck will be provided, and operated as needed to spray water for  
5 compaction. Waste covering operations will be curtailed during high winds  
6 in accordance with abnormal operating procedures for high winds. Prior to  
7 long periods of inactivity an assessment shall be made to implement more  
8 comprehensive dust control methods, such as chemical stabilization, on  
9 disturbed areas. A reassessment will be made once per week.

10 Periodic Monitoring: Recordkeeping.

11 Test Method: Not specified.

12 Test Frequency: Not applicable.

13 Required Records: Daily activity reports, logs, pre-job reviews, management assessments,  
14 surveillances or similar documents.

15 State-Only: Yes.

16 Calculation Model: Not applicable.

17 **Condition Approval 05/31/2005**

18 Condition: EMISSION LIMITS FOR AGGREGATE STORAGE PILE

19 Watering will be utilized to minimize wind erosion during storage pile  
20 operation. Storage pile work will be curtailed during high winds in  
21 accordance with abnormal operating procedures for high winds. Prior to  
22 long periods of inactivity, an assessment shall be made to implement more  
23 comprehensive dust control methods, such as chemical stabilization, on  
24 disturbed areas. A reassessment will be made once per week. Minimize  
25 vehicle traffic. Minimize areas of disturbance.

26 Periodic Monitoring Recordkeeping.

27 Test Method: Not specified.

28 Test Frequency: Not applicable.

29 Required Records: Daily activity reports, logs, pre-job reviews, management assessments,  
30 surveillances or similar documents.

31 State-Only: Yes.

32 Calculation Model: Not applicable.

33

1 **1.4.25 Discharge Point: Ventilation Systems for 241-AN and 241AW-Tank Farms**

2 200E, Tank Farms – Ventilation Systems for 241-AN and 241 AW Tank Farms

3 Requirement Citation (WAC or Order Citation): WAC 173-400-040(2), DE05NWP-001  
4 (2/18/2005), Rev 1 (7/31/2007), and Amd A (3/26/2013)

5 **Condition Approval 2/18/2005 (DE05NWP-001)**

6 Condition: EMISSION LIMITS

7 Visible emissions from each stack shall not exceed five (5) percent.

8 Periodic Monitoring: Compliance and monitoring shall be met by Section 2.1, Tier 3 Visible  
9 Emissions Survey requirements. Should visible emissions be observed  
10 which are not solely attributable to water condensation, compliance shall  
11 be met by performing an opacity determination utilizing 40 CFR 60,  
12 Appendix A, Method 9, providing that such determination shall not place  
13 the visible emission observer in hazard greater than that identified for the  
14 general worker.

15 Test Method: 40 CFR 60, Appendix A, Method 9, as applicable.

16 Test Frequency: None specified (as needed for monitoring and compliance).

17 Required Records: Visible emission surveys records in which a visible emission was  
18 observed, which are not solely attributable to water condensation; and  
19 Method 9 results, if conducted.

20 State-Only: No.

21 Calculation Model: Not applicable.

22 **Condition Approval 2/18/2005 (DE05NWP-001)**

23 Condition: EMISSION LIMITS

24 Primary tank ventilation exhauster systems shall not exceed 4,000 ft<sup>3</sup>/min  
25 (at standard temperature and pressure).

26 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
27 stack gas flow and temperature measurement.

28 Test Method: Not specified.

29 Test Frequency: None specified (as needed for monitoring and compliance).

30 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
31 (2) Records of calibration of stack gas flow rate and temperature  
32 measurement devices.

33 State-Only: No.

34 Calculation Model: Not applicable.

35

- 1 **Condition Approval 7/31/2007 (DE05NWP-001 Rev 1) and 3/26/2013 (Amd A)**  
2 **Condition:** EMISSION LIMITS  
3 All TAPs, as shown in Table 2 of Approval Order DE05NWP-001, Rev 1  
4 and Amd A, shall be below their respective ASIL or Screening Level of  
5 Table 1 of Approval Order DE05NWP-001 Rev 1.  
6 **Periodic Monitoring:** Compliance and monitoring shall be met by operating the exhauster  
7 systems only when in accord with T-BACT emission controls for the  
8 project. T-BACT for this project has been determined to be operation of  
9 the primary tank ventilation exhauster systems not exceeding 4,000 cubic  
10 feet per minute with moisture de-entrainment, pre-heater, and HEPA  
11 filtration in service in the treatment train.  
12 **Test Method:** Not specified.  
13 **Test Frequency:** None specified (as needed for monitoring and compliance).  
14 **Required Records:** Documentation and record-keeping of T-BACT compliance of emission  
15 control found for this project (operation of the primary tank ventilation  
16 exhauster system not exceeding 4,000 ft<sup>3</sup>/min with moisture de-  
17 entrainment, pre-heater, and HEPA filtration in service in the treatment  
18 train).  
19 **State-Only:** Yes.  
20 **Calculation Model:** Not applicable.  
21

1 **Condition Approval 3/26/2013 (DE05NWP-001 Amd A)**

2 Condition: EMISSIONS LIMITS

3 Emissions of ammonia shall not exceed 2.9 pounds per hour (3.63E-01  
4 gram/second) from either primary tank ventilation exhauster system. The  
5 term 'either exhauster system' shall mean each individual primary tank  
6 ventilation exhauster system within the 241-AN and 241-AW Tank Farms,  
7 where an exhauster system may be operated in single-train or dual-train  
8 modes.

9 Periodic Monitoring: Conduct of ammonia concentration readings and apply these  
10 concentration readings with contemporaneous stack flow rate and  
11 temperatures to determine instantaneous mass release rate of ammonia.

12 Test Method: Ammonia sampling and analysis will be in accord with approved  
13 alternative sampling procedures including the use of Draeger tubes to  
14 measure stack gas concentration of ammonia providing such devices are  
15 spanned to appropriately measure the stack gas ammonia concentration.  
16 Stack flow rate and temperature will be applied with the ammonia stack  
17 gas concentration to report ammonia emission in terms of grams per  
18 second.

19 Test Frequency: In order to assess baseline emission concentrations from each exhauster  
20 system, emission levels of ammonia will be assessed between 12 and 24  
21 hours after initiation of exhauster operation (single train or dual train).  
22 Ammonia stack concentrations shall be sampled a minimum of three  
23 times.

24 Baseline Assessments Baseline assessments shall be conducted within ninety (90) days of  
25 commencement of operations. Should dual exhauster train operation not  
26 be required by the Permittee during this ninety (90) day period, assessment  
27 of dual train operation emissions shall be conducted on the first occasion  
28 of dual train operation which is anticipated to exceed 24 hours duration.

29 Bi-Annual Assessment In order to maintain reasonable assurance of continued compliance with  
30 emission limitations from these exhauster systems, bi-annual assessment  
31 of ammonia stack emissions will be conducted beginning the second  
32 calendar year following completion of single train exhauster operation  
33 assessment. A minimum of three samples shall be used to assess these  
34 emissions.

35 Required Records: Results of emission assessments, baseline and bi-annual emission  
36 monitoring results, supporting data and calculations to demonstrate  
37 compliance with ammonia limits.

38 State-Only: Yes.

39 Calculation Model: Not applicable.

40

1 **Condition Approval 2/18/2005 (DE05NWP-001)**

2 Condition: REPORTING

3 Visible emission surveys conducted and a report of the maintenance  
4 conducted to maintain the subject exhaust system's T-BACT operations  
5 shall be submitted to Ecology within 30 days of completion of the survey  
6 with an assessment of the cause of visible emissions.

7 Periodic Monitoring: Compliance of this condition is met by submitting to Ecology within thirty  
8 (30) days of completion of the survey with an assessment of the cause of  
9 visible emissions.

10 Test Method: Not specified.

11 Test Frequency: Not applicable.

12 Required Records: Visible emission surveys conducted and a report of the maintenance.

13 State-Only: No.

14 Calculation Model: Not applicable.

15

16 **Condition Approval 2/18/2005 (DE05NWP-001)**

17 Condition: REPORTING

18 Identification of any TAP not previously identified within the Notice of  
19 Construction Application or Supplement emissions estimates shall be  
20 submitted to Ecology within ninety (90) days of completion of laboratory  
21 analyses which verify emissions of that toxic air pollutant from the  
22 project.

23 Periodic Monitoring: Compliance of this condition is met by submitting to Ecology within  
24 ninety (90) days of completion of laboratory analyses which verify  
25 emissions of that toxic air pollutant from the project.

26 Test Method: Not specified.

27 Test Frequency: Not applicable.

28 Required Records: Laboratory analysis.

29 State-Only: No.

30 Calculation Model: Not applicable.

31

- 1 **Condition Approval 2/18/2005 (DE05NWP-001)**
- 2 Condition: REPORTING
- 3 Results of emission assessments conducted shall be submitted to Ecology
- 4 within 90 days of completion of the assessment.
- 5 Periodic Monitoring: Compliance of this condition is met by submitting to Ecology within
- 6 ninety (90) days of completion of such assessment.
- 7 Test Method: Not specified.
- 8 Test Frequency: Not applicable.
- 9 Required Records: Emission assessment results.
- 10 State-Only: No.
- 11 Calculation Model: Not applicable

1 **1.4.26 Discharge Point: 200 Area SST Categorical Waste Retrieval**

2 200 Area SST Categorical Waste Retrieval

3 Requirement Citation (WAC or Order Citation): WAC 173-400-040(2), DE05NWP-002  
4 (2/18/2005), Rev. 1 (10/12/2005), and Rev 2 (7/31/2007).

5 **Condition Approval 2/18/2005 (DE05NWP-002)**

6 Condition: EMISSION LIMITS

7 Visible emissions from each tank ventilation exhauster stack or aggregated  
8 exhauster stack shall not exceed five percent.

9 Periodic Monitoring: Compliance and monitoring shall be met by Section 2.1, Tier 3 Visible  
10 Emissions Survey requirements<sup>1</sup>. Should visible emissions be observed  
11 which are not solely attributable to water condensation, compliance shall  
12 be met by performing an opacity determination utilizing 40 CFR 60,  
13 Appendix A, Method 9, providing that such determination shall not place  
14 the visible emission observer in hazard greater than that identified for the  
15 general worker.

16 Test Method: 40 CFR 60, Appendix A, Method 9, as applicable.

17 Test Frequency: None specified (as needed for monitoring and compliance)

18 Required Records: Visible emission surveys records in which a visible emission was  
19 observed, which are not solely attributable to water condensation; and  
20 Method 9 results if conducted.

21 State-Only: No.

22 Calculation Model: Not applicable.

23

1 **Condition Approval 2/18/2005 (DE05NWP-002)**

2 Condition: EMISSION LIMITS

3 Tank ventilation exhauster systems for the 241-C SST farm 100 series tank  
4 (241-C-101 through 241-C-112) shall not exceed cumulative flow rates of  
5 7,000 ft<sup>3</sup>/min (at standard temperature and pressure) for three exhausters  
6 individually limited to 1,000 ft<sup>3</sup>/min, 3,000 ft<sup>3</sup>/min, and 3,000 ft<sup>3</sup>/min,  
7 respectively (at standard temperature and pressure).

8 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
9 stack gas flow and temperature measurement.

10 Test Method: Not specified.

11 Test Frequency: None specified (as needed for monitoring and compliance).

12 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
13 (2) Records of calibration of stack gas flow rate and temperature  
14 measurement devices.

15 State-Only: No.

16 Calculation Model: Not applicable.

17 **Condition Approval 2/18/2005 (DE05NWP-002)**

18 Condition: EMISSION LIMITS

19 SST ventilation exhauster systems for the retrieval of wastes other than  
20 those of the 241-C tank farm 100 series tanks shall not exceed 1,000  
21 ft<sup>3</sup>/min (at standard temperature and pressure).

22 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
23 stack gas flow and temperature measurement.

24 Test Method: Not specified.

25 Test Frequency: None specified (as needed for monitoring and compliance).

26 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
27 (2) Records of calibration of stack gas flow rate and temperature  
28 measurement devices.

29 State-Only: No.

30 Calculation Model: Not applicable.

31

1 **Condition Approval:7/31/2007 (DE05NWP-002, Rev 2)**

2 Condition: EMISSION LIMITS

3 All TAPs, as submitted in the permittee's NOC Applications, shall be  
4 below their respective ASIL or Screening Level of Table 1 in Approval  
5 Order DE05NWP-002, Rev 2.

6 Periodic Monitoring: Compliance and monitoring with this condition shall be met by:

7 (1) Operating the exhauster systems only when in accord with T-BACT  
8 emission controls found for this project (operation of the tank  
9 ventilation exhauster systems with moisture de-entrainment, pre-heater,  
10 and HEPA filtration in service in the treatment train).

11 (2) Development and implementation of a sampling and analysis plan  
12 (SAP) for each tank retrieval. For each retrieval, the SAP shall address  
13 the emission of a minimum of the three TAPs with the higher potential  
14 ambient concentration relative to their ASILs of WAC 173-460-150  
15 and WAC-173-460-160 or relative to their Screening Level of Table 1  
16 of the Approval Order DE05NWP-002, Rev 2. The TAPs addressed in  
17 the SAP shall be identified from Table 2 of the Approval Order  
18 DE05NWP-002, Rev 2, and based upon best engineering judgment and  
19 most current tank content data. Analytical methods for the analysis  
20 shall be the United States EPA, OSHA, or NIOSH approved, or by  
21 approved equivalent method.

22 Test Method: Not specified.

23 Test Frequency: None specified (as needed for monitoring and compliance).

24 Required Records: (1) All monitoring and operations records required to operate and  
25 maintain the emission control equipment which implements T-BACT  
26 as required in Periodic Monitoring above.

27 (2) SAPs developed for compliance demonstration as described in  
28 Periodic Monitoring above.

29 (3) Laboratory analysis result summaries of any samples undertaken after  
30 the effective date of the Approval Order DE05NWP-002, Rev 2, from  
31 SST tank farm tank headspaces or SST ventilation system exhaust  
32 which are examined for organic species or other TAPs.

33 State-Only: Yes.

34 Calculation Model: Not applicable.  
35

1 **Condition Approval 2/18/2005 (DE05NWP-002)**

2 Condition: REPORTING  
3 Visible emission surveys, conducted pursuant to Compliance  
4 Demonstration requirement 1.3.2, per NOC approval DE05NPW-002, and  
5 a report of the maintenance conducted to maintain the subject exhaust  
6 system's T-BACT operations.

7 Periodic Monitoring: The reporting condition shall be submitted to Ecology within thirty (30)  
8 days of completion of the survey with an assessment of the cause of visible  
9 emissions.

10 Test Method: Not specified.

11 Test Frequency: Not applicable.

12 Required Records: Visible emission surveys conducted and a report of the maintenance.

13 State-Only: No.

14 Calculation Model: Not applicable.

15 **Condition Approval 10/12/2005 (DE05NWP-002, Rev. 1)**

16 Condition: REPORTING  
17 Identification of any TAP not previously identified within the Notice of  
18 Construction Application or Supplement emissions estimates as defined in  
19 Table 2, per NOC approval DE05NWP-002R1, shall be submitted to  
20 Ecology within ninety (90) days of completion of laboratory analyses  
21 which verify emissions of that toxic air pollutant from the project.

22 Periodic Monitoring: The reporting condition shall be submitted to Ecology within ninety (90)  
23 days of completion of laboratory analyses which verify emissions of that  
24 toxic air pollutant from the project.

25 Test Method: Not specified.

26 Test Frequency: Not applicable.

27 Required Records: Laboratory analysis.

28 State-Only: Yes.

29 Calculation Model: Not applicable.

30

1 **Condition Approval 2/18/2005 (DE05NWP-002)**

2 Condition: REPORTING

3 An annual schedule (Federal fiscal year basis) of anticipated operations  
4 and installations of exhauster systems.

5 Periodic Monitoring: The reporting condition shall be submitted by November first of each year.

6 Test Method: Not specified.

7 Test Frequency: Not applicable.

8 Required Records: Annual Schedule.

9 State-Only: Yes.

10 Calculation Model: Not applicable.

11

12 **Condition Approval 2/18/2005 (DE05NWP-002)**

13 Condition: OPERATIONAL NOTICE

14 Notification shall be made at least ten (10) days prior to initial operation  
15 of any exhauster system covered by this ORDER DE05NWP-002 when  
16 installed to ventilate a tank not previously actively ventilated under this  
17 ORDER.

18 Periodic Monitoring: Not applicable.

19 Test Method: Not specified.

20 Test Frequency: Not applicable.

21 Required Records: Not applicable.

22 State-Only: Yes.

23 Calculation Model: Not applicable.

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**1.4.27 Discharge Point: E-85 Fuel Station**

200E Area, E-85 Automotive Fuel Tank and Dispensing Facility

Requirement Citation (WAC or Order Citation): DE06NWP-001 (4/17/2006)

**Condition Approval 4/17/2006**

- Condition: Emission Limits
  - A. Emissions of Volatile Organic Compounds shall not exceed 40 tons per year.
  - B. All TAPs, as submitted in the Permittee’s NOC Application, shall be below their respective ASIL.
- Periodic Monitoring: Record fuel storage tank loading of the E-85 fuel and verify NOC Condition 1.6 requirements for each load received.
- Test Method: Compliance of the approval condition shall be demonstrated by installation of BACT and T-BACT emission controls including: (1) submerged or bottom fill pipe such that the pipe inlet is fully submerged when the fluid level in the tank is six inches (15.2 cm) or greater, and (2) fitting to vapor balance gasoline vapors with the delivery transport tank.
- Test Frequency: Not applicable (maintenance records).
- Required Records: Retention of fuel storage tank loading records detailed in NOC (DE06NWP-001) Approval Condition 1.6.
- State-Only: No.
- Calculation Model: Not applicable.

1 **1.4.28 Discharge Point: HAMMER Training and Education Facility**

2 Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Training  
3 and Education Facility (2890 Horn Rapids Road, Richland, Washington)

4 Requirement Citation (WAC or Order Citation): DE07NWP-001

5 **Condition Approval 4/19/2007**

6 Condition: Visible emissions from training operations shall not exceed twenty (20)  
7 percent opacity. [WAC 173-400-040(2)]

8 Periodic Monitoring: Section 2.1, Tier 2

9 Test Method: Section 2.1, Tier 2 and/or EPA Method 9 of 40 CFR 60, Appendix A.

10 Test Frequency: Once per year, if visible emissions are observed (see Periodic Monitoring).

11 Required Records: Records of Tier 2 visible emission event surveys including EPA Method 9  
12 results.

13 State-Only: No.

14 Calculation Model: Not applicable.

15 **Condition Approval 4/19/2007**

16 Condition: Fugitive emissions from training operations shall be minimized. [WAC  
17 173-400-040(4)(a)]

18 Periodic Monitoring: Use of operating procedures: (1) keep containers closed when not in use,  
19 and (2) ensure proper handling and storage to minimize unintentional  
20 losses.

21 Test Method: Not specified.

22 Test Frequency: Not applicable.

23 Required Records: Records of (1) fugitive release control procedure training, and (2) events  
24 which detail non-compliance with fugitive release control procedures or  
25 unintentional releases and response to such events.

26 State-Only: No.

27 Calculation Model: Not applicable.  
28

1 **Condition Approval 4/19/2007**

2 Condition: Particulate Matter emissions from training materials shall not exceed  
3 1,500 pounds per year (lb/yr). [WAC 173-400-110(5)(b)]

4 Periodic Monitoring: Material record keeping.

5 Test Method: Not applicable.

6 Test Frequency: Not applicable.

7 Required Records: Material balance records which detail materials receipt and disposal, with a  
8 summary assessment of losses calculated each calendar quarter.

9 State-Only: No.

10 Calculation Model: Not applicable.

11 **Condition Approval 4/19/2007 (DE07NWP-001)**

12 Condition: Volatile Organic Compound (VOC) emissions from training materials  
13 shall not exceed 4,000 pounds per year (lb/yr). [WAC 173-400-110(5)(b)]

14 Periodic Monitoring: Materials record keeping.

15 Test Method: Not applicable.

16 Test Frequency: Not applicable.

17 Required Records: Material balance records which detail materials receipt and disposal with a  
18 summary assessment of losses, calculated each calendar quarter.

19 State-Only: No.

20 Calculation Model: Not applicable.

21 **Condition Approval 4/19/2007 (DE07NWP-001) and 7/31/2007 (Amd 1)**

22 Condition: Emissions of all TAPs, as identified in Table 1 of NOC Order DE07NWP-  
23 001 (4/19/2007) and Amd 1 (7/31/2007), or newly identified, shall be  
24 below their respective SQERs. [WAC 173-460-150]

25 Periodic Monitoring: Materials record-keeping.

26 Test Method: Not applicable.

27 Test Frequency: Not applicable.

28 Required Records: Material balance records which detail materials receipt and disposal with a  
29 summary assessment of losses, calculated each calendar quarter. Emission  
30 of any TAP exceeding SQERs detailed in Table 1 of Order DE07NWP-001  
31 shall be reported to Ecology in accord with WAC 173-400-107.

32 Identification of any TAP not previously identified within Order  
33 DE07NWP-001, shall be submitted to Ecology within 90 days of initiation  
34 of use in training with an estimate of annual emissions.

35 State-Only: Yes.

36 Calculation Model: Not applicable.

37

1 **1.4.29 Discharge Point: 100B-181B/182B**

2 100 Area, Emergency Diesel Engines

3 Requirement Citation (WAC or Order Citation): DE07NWP-002

4 **Condition Approval 6/27/2007**

5 Condition: (1) Visible emissions will not exceed 20 % during acceleration mode  
6 [WAC 173-400-040(2), 40 CFR §60.4205(b), and 40 CFR §89.113(a)(1)].

7 (2) Visible emissions will not exceed 15 % during lugging mode [40 CFR  
8 §60.4205(b), and 40 CFR §89.113(a)(2)].

9 (3) Visible emissions will not exceed 50 % during peak in either  
10 acceleration or lugging mode. [WAC 173-400-040(2)(a), 40 CFR  
11 §60.4205(b), and 40 CFR §89.113(a)(3)].

12 Periodic Monitoring: Use Tier 1 Visible Emission Survey (Section 2.1 of AOP Attachment 1),  
13 unless otherwise specified (see Test Frequency below).

14 Test Method: Tier 1 Visible Emissions Survey and EPA Method 9 (40 CFR §60,  
15 Appendix A).

16 Test Frequency: Each engine authorized by this order shall be surveyed for visible  
17 emissions during maintenance and readiness testing and emergency-use  
18 based upon the following frequency or events:

19 (1) During maintenance and readiness testing, a visible emission survey  
20 shall be conducted with each readiness test startup,

21 (2) During emergency-use operations exceeding, or anticipated to exceed,  
22 eight hours duration, a visible emissions survey shall be conducted daily,

23 (3) Visible emissions of each engine shall be determined by procedures  
24 detailed in 40 CFR 86 Subpart I (40 CFR §86.884 et seq.) within 90 days  
25 of initial startup and as required by Ecology.

26 Required Records: Results of visible emissions survey and EPA Method 9 tests conducted  
27 pursuant to periodic monitoring.

28 State-Only: No.

29 Calculation Model: Not applicable.  
30

- 1 **Condition Approval 6/27/2007**  
2 **Condition:** Emissions of Polyaromatic Hydrocarbons (PAHs) will not result in  
3 ambient concentrations exceeding  $4.8E-04 \mu\text{g}/\text{m}^3$  [WAC 173-460-080(2)].  
4 **Periodic Monitoring:** Compliance will be demonstrated by calculation of the sum of PAH TAP  
5 emissions from all engines employing air pollution emission factors of AP  
6 42, Table 3.3-2, for engines less than 600 HP, and AP-42, Table 3.4-4, for  
7 engines 600 HP and higher.  
8 **Test Method:** Not applicable.  
9 **Test Frequency:** Not applicable.  
10 **Required Records:** Calculations and dispersion analyses prepared semiannually in concert  
11 with cumulative operating hour calculations, retained for a minimum of 36  
12 months. AP 42, fifth edition, shall be used for the calculation.  
13 **State-Only:** Yes.  
14 **Calculation Model:** Not applicable.  
15

1 **Condition Approval 6/27/2007**

2 Condition: Emissions of Toxic Air Pollutants (TAPs), as identified in the table below,  
 3 will not exceed SQERs of WAC 173-460-080(2)(e).

TAPs	Chemical Abstracts Service Registry Number	TAP Class	SQER	
			Lb/yr	Lb/hr
Benzene	71-43-2	A	20	
Toluene	108-88-3	B		5
Xylene	1330-20-7	B		5
1,3-Butadiene	106-99-0	A	0.5	
Formaldehyde	50-00-0	A	20	
Acetaldehyde	75-07-0	A	50	
Acrolein	107-02-8	B		0.02

4 Periodic Monitoring: Compliance will be demonstrated by calculation of the sum of TAP  
 5 emissions from all engines employing air pollution emission factors of AP  
 6 42, Table 3.3-2, for engines less than 600 HP, and AP-42, Table 3.4-3, for  
 7 engines 600 HP and higher.

8 Test Method: Not applicable.

9 Test Frequency: Not applicable.

10 Required Records: Calculations and dispersion analyses prepared semiannually in concert  
 11 with cumulative operating hour calculations, retained for a minimum of 36  
 12 months. AP 42, fifth edition, shall be used for the calculation. Table 3.4-  
 13 3 of AP-42 does not estimate emissions of 1,3-Butadiene for larger  
 14 engines. An emission factor of zero shall be applied to 1,3-Butadiene for  
 15 engines 600 HP or larger.

16 State-Only: Yes.

17 Calculation Model Not applicable.

18

1 **Condition Approval 6/27/2007**

2 Condition: Emissions of sulfur dioxide will not exceed two tons per year  
3 [WAC 173-400-110(5)(b)].

4 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing (1) no  
5 greater than 0.05 weight percent sulfur (500 parts per million by  
6 weight) from installation to May 30, 2010 [40 CFR §60.4207(a),  
7 40 CFR §80.510(a)], and (2) no greater than 0.0015 weight percent  
8 sulfur (15 parts per million by weight) on and after June 1, 2010  
9 [40 CFR §60.4207(b), 40 CFR §80.510(b)].

10 Test Method: Not applicable.

11 Test Frequency: Not applicable.

12 Required Records: Diesel fuel quality shall be documented by annual fuel analysis or  
13 vendor documentation of fuel purchases from retail outlet(s) that  
14 demonstrate compliance with diesel fuel quality standards of 40  
15 CFR §80.510 for all purchases.

16 State-Only: No.

17 Calculation Model: Not applicable.

18

1 **Condition Approval 6/27/2007**

2 **Condition:** Emissions of Nitrogen Oxides (NO<sub>x</sub>) and Non-methane Hydrocarbons  
3 (NMHC) will not exceed 14.2 tons per year [WAC 173-400-091, AP 42  
4 emission factors for engines in NOC application operating 500 hours per  
5 year].

6 Emissions of Carbon Monoxide (CO) will not exceed 5 tons per year  
7 [WAC 173-400-110(5)(b)].

8 Emissions of particulate matter (PM) will not exceed 0.75 tons per year  
9 [WAC 173-400-110(5)(b)].

10 **Periodic Monitoring:** Compliance will be demonstrated by:

11 (A) Engine Limitation

12 (1) Installation of engines certified to meet emission limitations of 40  
13 CFR §89 [40 CFR §60.4211(c)], and

14 (2) Installation of one engine rated no higher than 450 horsepower  
15 (HP) and two engines rated no higher than 900 HP each; and

16 (B) Operational Limitation

17 (1) All recommended operation and equipment maintenance  
18 provisions supplied by the manufacturer(s) of the engine(s) will be  
19 current [40 CFR §60.4211(a)],

20 (2) Operational monitoring in accord with installed non-resettable hour  
21 meter on each engine [40 CFR §60.4209(a)],

22 (3) Operational hours of use for each engine, for purposes of  
23 maintenance checks and readiness testing shall not exceed 100 hours  
24 per year unless approved by the Administrator of the United States  
25 Environmental Protection Agency [40 CFR §60.4211(e)], and

26 (4) Operational hours of use during emergency conditions shall not be  
27 limited provided maintenance of records of emergency use are  
28 consistent with Required Records below.

29 **Test Method:** Not applicable.

30 **Test Frequency:** Not applicable.

31 **Required Records:** (1) Manufacturer's engine certifications,

32 (2) Maintenance records, and

33 (3) Records of cumulative operating hours for each engine, calculated  
34 semiannually, retained for a minimum of 36 months.

35 **State-Only:** No.

36 **Calculation Model:** Not applicable.

37

1 **Condition Approval 6/27/2007**

2 Condition: Emission rates of installed engines shall not exceed values identified in the  
 3 table below [40 CFR §60.4205(b) and 40 CFR §89.112].

Pollutant	Engine Rating	Gram/kilowatt-hour (g/kW-hr)	Pound/horsepower-hour (lb/HP-hr)
Carbon Monoxide	130 to 560 kW (174 to 751 HP)	3.5	5.8E-03
Particulate Matter	130 to 560 kW (174 to 751 HP)	0.2	3.3E-04
Non-methane Hydrocarbons and Nitrogen Oxides	130 to 560 kW (174 to 751 HP)	4.0	6.6E-03
	>560 kW (>751 HP)	6.4	1.1E-02

4 Periodic Monitoring: Compliance shall be demonstrated by:

- 5 (1) Procuring and installing only engines certified to emission standards of
- 6 40 CFR §60.4205(b) for the same model year and maximum engine
- 7 rating [40 CFR §60.4211(c)].
- 8 (2) Operating and maintaining the stationary compression ignition internal
- 9 combustion engines and control devices according to the
- 10 manufacturer's written instructions or procedures developed by the
- 11 owner or operator that are approved by the engine manufacturer [40
- 12 CFR §60.4211(a)].
- 13 (3) Installing and configuring the engines according to manufacturer
- 14 specifications [40 CFR §60.4211(c)].
- 15 (4) Maintaining records of engine certification as detailed in the Required
- 16 Records below.

17 Test Method: Not applicable.

18 Test Frequency: Not applicable.

- 19 Required Records:
- 20 (1) Manufacturer's engine certifications.
  - 21 (2) Records of cumulative operating hours for each engine, calculated
  - 22 semi-annually, will be retained for a minimum of 36 months.
  - 23 (3) Records of emergency use operational duration and the basis of the
  - 24 emergency.

25 State-Only: No.

26 Calculation Model: Not applicable.

1 **1.4.30 Discharge Point: WTP Heaters and Dehumidifiers**

2 200 Area, Hanford Tank Waste Treatment and Immobilization Plant (WTP)

3 Requirement Citation (WAC or Order Citation): WAC 173-400-110, WAC 173-460-070, and  
4 DE07NWP-004 (11/21/2007)

5 **Condition Approval 11/21/2007**

6 Condition: Emission Limits:

7 (1) Total Suspended Particulates emission shall not exceed 1.25 tons per  
8 year [WAC 173-400-110(5)(b)].

9 (2) PM-10 particulate emission shall not exceed 0.75 tons per year [WAC  
10 173-400-110(5)(b)].

11 Periodic Monitoring: Compliance shall be monitored by:

12 (1) Emission of visible emissions of no more than five percent opacity  
13 during normal operation of diesel-fired heaters.

14 (2) Diesel-fired heaters exceeding five percent opacity shall be removed  
15 from operation until maintenance of the unit results in visible  
16 emissions in compliance (no more than 5%).

17 (3) Compliance with visible emissions survey requirements of Approval  
18 Condition 3.0 of the Approval Order DE07NWP-004. Visible  
19 emissions (VE) from diesel-fired heaters in normal operation (not  
20 start-up or shut-down) will be monitored through a VE survey  
21 described herein. A minimum representation of 20 percent of active  
22 diesel-fired heaters under this ORDER shall be subject to VE survey.  
23 If VEs from one of these emission units are observed for more than 10  
24 consecutive minutes, an attempt to identify the cause(s) of the VEs  
25 will be made and those results recorded. The recorded entry also will  
26 identify any corrective actions taken and the likely frequency of a  
27 future reoccurrence. If the event is likely to be re-occurring, and can  
28 not be demonstrated to consist of water vapor, a determination of  
29 opacity will be made using EPA Method 9 of 40 CFR 60, Appendix A.  
30 A VE survey shall be conducted weekly for a period of three months.  
31 If weekly VE surveys do not demonstrate emissions in excess of  
32 Approval Condition 1.3.1, the VE survey frequency will reduce to  
33 once every three months for a period of six months. After nine months  
34 of no excess visible emissions, visible emission surveys will be  
35 performed for any diesel-fired heater subject to this ORDER only  
36 when visible emissions are observed during normal operation.

37 Test Method: VE Surveys and/or EPA Method 9 of 40 CFR 60, Appendix A (if needed).

38 Test Frequency: Not specified.

39 Required Records: (1) VE Surveys and/or EPA Method 9 of 40 CFR 60, Appendix A, results.  
40 (2) Maintenance records for any diesel-fired heater removed from service.

41 State-Only: No.

42 Calculation Model: Not applicable.

1 **Condition Approval 11/21/2007**

- 2 Condition: Emission Limits:  
3 Sulfur Oxides (SO<sub>x</sub>) emission shall not exceed 2.0 tons per year [WAC  
4 173-400-110(5)(b)].  
5 Periodic Monitoring: Compliance shall be monitored by:  
6 (1) Combustion of distillate fuel oil No. 2 with a sulfur content no greater  
7 than 0.0015 wt percent (15 ppm) for diesel heaters.  
8 (2) Combustion of no greater than 933,100 gallons of distillate fuel oil per  
9 year, based upon a daily rolling summation.  
10 Test Method: Record-keeping.  
11 Test Frequency: Per daily rolling summation and/or fuel shipment.  
12 Required Records: Fuel analysis data and consumption rates, including supporting data and  
13 calculations.  
14 State-Only: No.  
15 Calculation Model: Not specified.

16 **Condition Approval 11/21/2007**

- 17 Condition: Emission Limits:  
18 (1) Nitrogen Oxides (NO<sub>x</sub>) emission shall not exceed 16.2 tons per year  
19 [WAC 173-400-110(2)(a)].  
20 (2) Total Volatile Organic Compounds emission shall not exceed 2.0 tons  
21 per year [WAC 173-400-110(5)(b)].  
22 (3) Carbon Monoxide emissions shall not exceed 5.0 tons per year [WAC  
23 173-400-110(5)(b)].  
24 (4) Toxic Air Pollutant (TAP) emissions as specified in Table 1 of  
25 Approval Order DE07NWP-004 [WAC 173-460-070].  
26 Periodic Monitoring: Compliance shall be monitored by:  
27 (1) Operation in compliance with BACT/T-BACT (implementation of  
28 vendor-recommended combustion and maintenance practices).  
29 (2) Fuel Limitation: (a) combustion of no greater than 933,100 gallons of  
30 distillate fuel oil per year, based upon a daily rolling summation, and  
31 (b) combustion of no greater than 1,109,500 gallons of propane per  
32 year, based upon a daily rolling summation.  
33 Test Method: Record-keeping.  
34 Test Frequency: Per daily rolling summation and/or fuel shipment.  
35 Required Records: Fuel analysis data and consumption rates, including supporting data and  
36 calculations.  
37 State-Only: No.  
38 Calculation Model: Not specified.

39

1 **1.4.31 Discharge Point: 300 Area/339A**

2 300 Area Building 339A, Emergency Diesel Engine

3 Requirement Citation (WAC or Order Citation): DE08NWP-001

4 **Condition Approval 9/24/2008**

5 Condition: Visible emissions will not exceed 20 %. [WAC 173-400-040(2)]

6 Periodic Monitoring: Use Tier 1 Visible Emission Survey (Section 2.1 of AOP Attachment 1),  
7 unless otherwise specified.

8 Test Method: Tier 1 Visible Emissions Survey and EPA Method 9 (40 CFR §60,  
9 Appendix A).

10 Test Frequency: The engine authorized by this order shall be surveyed daily for visible  
11 emissions during emergency-use exceeding, or anticipated to exceed, eight  
12 hours duration.

13 Required Records: Results of visible emissions survey and EPA Method 9 tests conducted  
14 pursuant to periodic monitoring.

15 State-Only: No.

16 Calculation Model: Not applicable.  
17

1 **Condition Approval 9/24/2008**

2 Conditions: Emissions of Nitrogen Oxides (NO<sub>x</sub>) will not exceed 1.25 tons per year.  
3 [WAC 173-400-091 operating 500 hours per year].

4 Emissions of Carbon Monoxide (CO) will not exceed 5 tons per year.  
5 [WAC 173-400-110(5)(b)].

6 Emissions of particulate matter (PM) will not exceed 0.75 tons per year.  
7 [WAC 173-400-110(5)(b)].

8 Emissions of volatile organic compounds (VOC) will not exceed 2 tons  
9 per year. [WAC 173-400-110(5)(b)].

10 Periodic Monitoring: Compliance will be demonstrated by:

11 (A) Engine Limitation:

12 (1) Installation of one engine rated no higher than 350 horsepower  
13 (HP).

14 (B) Operational Limitation:

15 (1) Operational monitoring in accord with installed non-resettable hour  
16 meter on the approved engine [40 CFR §60.4209(a)],

17 (2) Operational hours of use for the engine, for purposes of  
18 maintenance checks and readiness testing shall not exceed 100  
19 hours per year unless approved by the Administrator of the United  
20 States Environmental Protection Agency [40 CFR §60.4211(e)],

21 (3) Operation of the engine, for purposes other than emergency use or  
22 maintenance checks and readiness testing, is prohibited [40 CFR  
23 §60.4211(e)], and

24 (4) Operational hours of use during emergency conditions shall not be  
25 limited provided records of emergency use are retained as defined  
26 in Approval Condition 1.6 of the ORDER DE08NWP-001.

27 Test Method: Not applicable.

28 Test Frequency: Not applicable.

29 Required Records: (1) Manufacturer's engine data,  
30 (2) Maintenance records, and  
31 (3) Records of cumulative operating hours for the engine (36 months  
32 maximum), recorded annually.

33 State-Only: No.

34 Calculation Model: Not applicable.

35

1 **Condition Approval 9/24/2008**

2 Condition: Emissions of Toxic Air Pollutants (TAPs), as identified in the table below,  
 3 will not exceed SQERs of WAC 173-460-080(2)(e).

TAPs	Chemical Abstracts Service Registry Number	TAP Class	SQER	
			Lb/yr	Lb/hr
Benzene	71-43-2	A	20	
Toluene	108-88-3	B		5
Xylene	1330-20-7	B		5
1,3-Butadiene	106-99-0	A	0.5	
Formaldehyde	50-00-0	A	20	
Acetaldehyde	75-07-0	A	50	
Acrolein	107-02-8	B		0.02

4 Periodic Monitoring: Compliance will be demonstrated by calculation of the sum of TAP  
 5 emissions from the engine employing air pollution emission factors of AP  
 6 42, Table 3.3-2, for engines less than 600 HP.

7 Test Method: Not applicable.

8 Test Frequency: Not applicable.

9 Required Records: Calculations and dispersion analyses calculated annually.

10 State-Only: No.

11 Calculation Model: Not applicable.

12 **Condition Approval 9/24/2008**

13 Condition: Emissions of Polyaromatic Hydrocarbons (PAHs) will not result in  
 14 ambient concentrations exceeding  $4.8E-04 \mu\text{g}/\text{m}^3$  [WAC 173-460-080(3)].

15 Periodic Monitoring: Compliance will be demonstrated by calculation of the sum of PAH TAP  
 16 emissions from the engine employing air pollution emission factors of AP  
 17 42, Table 3.3-2, for engines less than 600 HP. Dispersion analysis shall  
 18 demonstrate that calculated emissions comply with the standard of this  
 19 approval condition.

20 Test Method: Not applicable.

21 Test Frequency: Not applicable.

22 Required Records: Calculations and dispersion analyses calculated annually.

23 State-Only: No.

24 Calculation Model: Not applicable.

25

1 **Condition Approval 9/24/2008**

2 Condition: Emissions of sulfur dioxide will not exceed two tons per year  
3 [WAC 173-400-110(5)(b)].

4 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing (1) no  
5 greater than 0.05 weight percent sulfur (500 parts per million by  
6 weight) from installation to May 31, 2010 [40 CFR §60.4207(a),  
7 40 CFR §80.510(a)], and (2) no greater than 0.0015 weight percent  
8 sulfur (15 parts per million by weight) on and after June 1, 2010  
9 [40 CFR §60.4207(b), 40 CFR §80.510(b)].

10 Test Method: Not applicable.

11 Test Frequency: Not applicable.

12 Required Records: Diesel fuel quality shall be documented by annual fuel analysis or  
13 vendor documentation of fuel purchases from retail outlet(s) that  
14 demonstrate compliance with diesel fuel quality standards of 40  
15 CFR §80.510 for all purchases.

16 State-Only: No.

17 Calculation Model: Not applicable.

18

1 **Condition Approval 9/24/2008**

2 Condition: Emission rates of installed engine shall not exceed values identified in the  
3 table below [40 CFR §60.4205(a), NSPS III Table 1].

Pollutant	Engine Rating	Gram/kilowatt-hour (g/kW-hr)	Pound/horsepower-hour (lb/HP-hr)
Hydrocarbons	225≤kW<450 (300≤HP<600)	1.3	2.20E-03
Carbon Monoxide		11.4	1.87E-02
Particulate Matter		0.54	8.82E-04
Nitrogen Oxides		9.2	1.52E-02

4 Periodic Monitoring: Compliance shall be demonstrated by:

- 5 (1) Procuring and installing an engine compliant with emission standards  
6 of 40 CFR §60.4205(a) for the same model year and maximum engine  
7 rating [40 CFR §60.4211(b)(3) with emission standards expressed in  
8 Table 1 to NSPS III].
- 9 (2) Operating and maintaining the stationary compression ignition internal  
10 combustion engines and control devices according to the  
11 manufacturer's written instructions or procedures developed by the  
12 owner or operator that are approved by the engine manufacturer [40  
13 CFR §60.4211(a)].
- 14 (3) Maintaining records of engine manufacturing data as detailed in the  
15 Required Records below.

16 Test Method: Not applicable.

17 Test Frequency: Not applicable.

- 18 Required Records: (1) Manufacturer's engine data will be retained through the life of the  
19 engine.
- 20 (2) Maintenance records for Periodic Monitoring (2) above shall be  
21 retained for 60 months minimum.
- 22 (3) Records of cumulative operating hours for the engine, recorded  
23 annually, will be retained for 36 months maximum.
- 24 (4) Records of emergency use operational duration and the basis of the  
25 emergency.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **1.4.32 Discharge Point: 241-AP, 241-SY, and 241-AY/AZ Ventilation**

2 200E Area, Tank Farms - Ventilation

3 Requirement Citation (WAC or Order Citation): NOC Approval Order DE11NWP-001  
4 (11/30/2011)

5 **Condition Approval 11/30/2011**

6 Condition: EMISSION LIMITS

7 Visible emissions will not exceed five (5)% opacity. [WAC 173-400-  
8 040(2)]

9 Periodic Monitoring: Compliance and monitoring shall be met by Tier 3 visible Emission  
10 Survey requirements of the Hanford AOP, Section 2. Should visible  
11 emissions be observed which are not solely attributable to water  
12 condensation, compliance shall be met by performing an opacity  
13 determination utilizing 40 CFR 60, Appendix A, Method 9, providing that  
14 such determination shall not place the visible emission observer in hazard  
15 greater than that identified for the general worker.

16 Test Method: 40 CFR 60, Appendix A, Method 9

17 Test Frequency: Not specified except when visible emissions are observed.

18 Required Records: Visible emission survey records in which a visible emission was observed  
19 and is not solely attributable to water condensation. 40 CFR 60, Appendix  
20 A, Method 9 results if conducted. Visible emission survey records shall  
21 be submitted to Ecology within thirty (30) days of completion of the  
22 survey with an assessment of the cause of visible emissions and a report of  
23 the maintenance conducted to maintain the subject system's tBACT  
24 operations.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

1 **Condition Approval 11/30/2011**

2 Condition: EMISSION LIMITS  
3 VOC emissions shall not exceed 3.1 tons per year for the 241-SY system.  
4 Emissions of VOCs are based upon the operation of two tanks being  
5 mixed at the tank farm.  
6 Periodic Monitoring: Compliance with this condition shall be demonstrated by stack gas flow  
7 and temperature measurement.  
8 Test Method: VOC stack sampling and calculation as identified in the DE11NWP-001  
9 Approval Condition 3.0.  
10 Test Frequency: Annually.  
11 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
12 (2) Records of calibration of stack flow rate and temperature  
13 measurement devices.  
14 (3) Laboratory analysis result summaries from tank headspaces or  
15 primary tank ventilation system exhaust for VOCs.  
16 State-Only: No.  
17 Calculation Model: Not applicable.

18 **Condition Approval 11/30/2011**

19 Condition: EMISSION LIMITS  
20 VOC emissions shall not exceed 3.8 tons per year for 241-AP system.  
21 Emissions of VOCs are based upon the operation of two tanks being  
22 mixed at the tank farm.  
23 Periodic Monitoring: Compliance with this condition shall be demonstrated by stack gas flow  
24 and temperature measurement.  
25 Test Method: VOC stack sampling and calculation as identified in the DE11NWP-001  
26 Approval Condition 3.0.  
27 Test Frequency: Annually.  
28 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
29 (2) Records of calibration of stack flow rate and temperature  
30 measurement devices.  
31 (3) Laboratory analysis result summaries from tank headspaces or  
32 primary tank ventilation system exhaust for VOCs.  
33 State-Only: No.  
34 Calculation Model: Not applicable.

35

- 1 **Condition Approval 11/30/2011**  
2 Condition: EMISSION LIMITS  
3 VOC emissions shall not exceed 3.2 tons per year for 241-AY/AZ system.  
4 Emissions of VOCs are based upon the operation of two tanks being  
5 mixed at the tank farm.  
6 Periodic Monitoring: Compliance with this condition shall be demonstrated by stack gas flow  
7 and temperature measurement.  
8 Test Method: VOC stack sampling and calculation as identified in the DE11NWP-001  
9 Approval Condition 3.0.  
10 Test Frequency: Annually.  
11 Required Records: (1) Records of exhauster system stack flow rates and temperature records.  
12 (2) Records of calibration of stack flow rate and temperature  
13 measurement devices.  
14 (3) Laboratory analysis result summaries from tank headspaces or  
15 primary tank ventilation system exhaust for VOCs.  
16 State-Only: No.  
17 Calculation Model: Not applicable.  
18

1 **Condition Approval 11/30/2011**

2 Condition: EMISSION LIMITS

3 All TAPs, as shown in Table 2 of Approval Order DE11NWP-001, shall  
4 be below their respective ASIL or approved through a Second Tier review.

5 Periodic Monitoring: Compliance with this condition shall be met by:

6 (1) Development and implementation of an annual sampling and analysis  
7 plan (SAP) for each exhauster system to meet requirements of DE11NWP-  
8 001 Section 3.3. Each SAP shall address the emission of a minimum of  
9 three TAPs with the highest potential ambient concentration relative to  
10 their ASILs of WAC 173-460-150 in addition to dimethyl mercury. The  
11 TAPs addressed in the SAP shall be identified from DE11NWP-001 Table  
12 2 and based on engineering judgment and most current tank content data.  
13 Analytical methods for the analyses shall be the EPA, Occupational Safety  
14 and Health Administration (OSHA), or National Institute for Occupational  
15 Safety and Health (NIOSH) approved, or by approved equivalent method.

16 (2) Stack sampling for each exhauster system as described in Section 3 of  
17 the DE11NWP-001 for TAPs, and applying these concentration readings  
18 with contemporaneous stack flow rates and temperatures to determine the  
19 mass release rates of these TAPs and their respective release rate  
20 averaging times per WAC 173-460-150. Identification of any TAP not  
21 previously identified shall be submitted to Ecology within ninety (90) days  
22 of laboratory analyses which verify emissions of that TAP. Approved TAP  
23 emissions per ventilation system are detailed in DE11NWP-001 Table 3  
24 for the 241-SY ventilation system, DE11NWP-001 Table 4 for the 241-AP  
25 ventilation system, and DE11NWP-001 Table 5 for the 241-AY/AZ  
26 ventilation system.

27 (3) Operating the exhauster systems in accordance with BACT and  
28 tBACT emission controls in place. These controls are operation of each  
29 primary tank ventilation exhauster system not exceeding the maximum  
30 ventilation rates shown in the DE11NWP-001 Table 1 with a moisture de-  
31 entrainer, heater, pre-filters, and a two-stage high Efficiency Particulate  
32 Air (HEPA) filtration system in service in each treatment train.

33 Test Method: Stack sampling and calculations identified in the DE11NWP-001 Section  
34 3.3.

35 Test Frequency: Annually.

36 Required Records: Records shall be organized in a readily accessible manner and cover a  
37 minimum of the most recent sixty (60) month period. The records include:

38 (1) Records of exhauster system stack flow rates and temperature records.

39 (2) Records of calibration of stack flow rate and temperature  
40 measurement devices.

41 (3) Emission monitoring results required in DE11NWP-001 Section 3.0.

- 1 (4) Supporting data and calculations to demonstrate compliance as  
2 detailed in DE11NWP-001 Condition 1.4.4.
- 3 (5) Laboratory analysis result summaries from tank headspaces or  
4 primary tank ventilation system exhaust for TAPs.
- 5 (6) Documentation and record-keeping of BACT and tBACT compliance  
6 of emission controls.
- 7 State-Only: No.
- 8 Calculation Model: Not applicable.
- 9 **Condition Approval 11/30/2011**
- 10 Condition: EMISSION LIMITS
- 11 Ammonia emissions shall not exceed 58.1pounds per day for 241-SY  
12 system.
- 13 Periodic Monitoring: Conduct ammonia concentration readings as described in in sections 3.1.1  
14 and 3.4 of NOC Approval Order DE11NWP-001, and applying these  
15 concentration readings with contemporaneous stack flow rate and  
16 temperatures to determine mass release rate of ammonia.
- 17 Test Method: Baseline assessment of ammonia stack concentrations shall be sampled a  
18 minimum of three times within ninety (90) days of commencement of  
19 operations. Ammonia sampling and analysis will be in accord with  
20 approved alternative sampling procedures including the use of Draeger  
21 tubes to measure stack gas concentration of ammonia providing such  
22 devices are spanned to appropriately measure the stack gas ammonia  
23 concentration. Stack flow rate and temperature will be applied with the  
24 ammonia stack gas concentration to report ammonia emission in terms of  
25 pounds per day.
- 26 Test Frequency: Baseline Assessments Baseline assessments shall be conducted within  
27 ninety (90) days of commencement of operations. Results of baseline  
28 emission assessments shall be submitted to Ecology within ninety (90)  
29 days of completion of such assessment.
- 30 Quarterly Assessment In order to maintain reasonable assurance of  
31 continued compliance with emission limitations from these exhausters  
32 systems, quarterly assessment of ammonia stack emissions will be  
33 conducted according to DE11NWP-001 Section 3.1.1. A minimum of  
34 three samples shall be used to assess these emissions.
- 35 Required Records: Results of emission assessments, baseline and quarterly emission  
36 monitoring results, supporting data and calculations to demonstrate  
37 compliance with ammonia limits.
- 38 State-Only: No.
- 39 Calculation Model: Not applicable.
- 40

1 **Condition Approval 11/30/2011**

2 Condition: EMISSION LIMITS

3 Ammonia emissions shall not exceed 71.9 pounds per day for 241-AP  
4 system.

5 Periodic Monitoring: Conduct ammonia concentration readings as described in in section 3.1.1  
6 and 3.4 of NOC Approval Order DE11NWP-001, and applying these  
7 concentration readings with contemporaneous stack flow rate and  
8 temperatures to determine mass release rate of ammonia.

9 Test Method: Baseline assessment of ammonia stack concentrations shall be performed  
10 a minimum of three times within ninety (90) days of commencement of  
11 operations. Ammonia sampling and analysis will be in accord with  
12 approved alternative sampling procedures including the use of Draeger  
13 tubes to measure stack gas concentration of ammonia providing such  
14 devices are spanned to appropriately measure the stack gas ammonia  
15 concentration. Stack flow rate and temperature will be applied with the  
16 ammonia stack gas concentration to report ammonia emission in terms of  
17 pounds per day.

18 Test Frequency: Baseline Assessments Baseline assessments shall be conducted within  
19 ninety (90) days of commencement of operations. Results of baseline  
20 emission assessments shall be submitted to Ecology within ninety (90)  
21 days of completion of such assessment.

22 Quarterly Assessment In order to maintain reasonable assurance of  
23 continued compliance with emission limitations from these exhauster  
24 systems, quarterly assessment of ammonia stack emissions will be  
25 conducted according to DE11NWP-001 Section 3.1.1. A minimum of  
26 three samples shall be used to assess these emissions.

27 Required Records: Results of emission assessments, baseline and quarterly emission  
28 monitoring results, supporting data and calculations to demonstrate  
29 compliance with ammonia limits.

30 State-Only: No.

31 Calculation Model: Not applicable.  
32

- 1 **Condition Approval 11/30/2011**  
2 Condition: EMISSION LIMITS  
3 Ammonia emissions shall not exceed 60.8 pounds per day for 241-AY/AZ  
4 system.  
5 Periodic Monitoring: Conduct ammonia concentration readings as described in in section 3.1.1  
6 and 3.4 of NOC Approval Order DE11NWP-001, and applying these  
7 concentration readings with contemporaneous stack flow rate and  
8 temperatures to determine instantaneous mass release rate of ammonia.  
9 Test Method: Baseline assessment of ammonia stack concentrations shall be performed  
10 a minimum of three times within ninety (90) days of commencement of  
11 operations . Ammonia sampling and analysis will be in accord with  
12 approved alternative sampling procedures including the use of Draeger  
13 tubes to measure stack gas concentration of ammonia providing such  
14 devices are spanned to appropriately measure the stack gas ammonia  
15 concentration. Stack flow rate and temperature will be applied with the  
16 ammonia stack gas concentration to report ammonia emission in terms of  
17 pounds per day.  
18 Test Frequency: Baseline Assessments Baseline assessments shall be conducted within  
19 ninety (90) days of commencement of operations. Results of baseline  
20 emission assessments shall be submitted to Ecology within ninety (90)  
21 days of completion of such assessment.  
22 Quarterly Assessment In order to maintain reasonable assurance of  
23 continued compliance with emission limitations from these exhauster  
24 systems, quarterly assessment of ammonia stack emissions will be  
25 conducted according to DE11NWP-001 Section 3.1.1 . A minimum of  
26 three samples shall be used to assess these emissions.  
27 Required Records: Results of emission assessments, baseline and quarterly emission  
28 monitoring results, supporting data and calculations to demonstrate  
29 compliance with ammonia limits.  
30 State-Only: No.  
31 Calculation Model: Not applicable.  
32

1 **Condition Approval 11/30/2011**

2 Condition: OPERATIONAL LIMITS

3 Normal Double-Shell Tank (DST) primary tank ventilation system flow  
4 rates during Normal Operations (e.g. storage, retrieval, and sampling) are  
5 shown in the Table below. The maximum flow rates for the DST  
6 ventilation systems shall not exceed ventilation rates for Maximum  
7 Operations (Table below).

Project Farm Ventilation Rates

Tank Farm(s)	Normal Operations	Maximum Operations
241-SY	1,360 scfm	2,500 scfm
241-AP	1,500 scfm	3,000 scfm
241-AY/AZ	1,500 scfm	3,000 scfm
scfm = standard cubic foot per minute, 1 atmosphere pressure at 20°C		

8 Periodic Monitoring: Stack gas flow and temperature measurement.

9 Frequency: Annually.

10 Test Method: None Specified.

11 Required Records: 1) Records of calibration of stack gas flow rate and temperature  
12 measurement devices.  
13 2) Records of exhaust system stack flow rate and temperature  
14 measurements.

15 State-Only: No.

16 Calculation Model: Not applicable.

17 **Condition Approval 11/30/2011**

18 Condition: OPERATIONAL LIMITS

19 No more than two of the three tanks in the 241-SY Tank Farm (241-SY-  
20 101 through 241-SY-103) shall be under active mixing and Waste Feed  
21 Delivery operations at any one time. Waste Feed Delivery operations are  
22 defined as those which mix and transfer waste, including transfers to the  
23 Waste Treatment and Immobilization Plant.

24 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
25 operational record keeping of Waste Feed Delivery operations recorded  
26 into operational records sufficient to determine onset and cessation of such  
27 operations for each tank.

28 Test Method: Not specified

29 Test Frequency: Not applicable.

30 Required Records: Operational records.

31 State-Only: No.

32 Calculation Model: Not applicable.

33

1 **Condition Approval 11/30/2011**

2 Condition: OPERATIONAL LIMITS

3 No more than two of the eight tanks in the 241-AP Tank Farm (241-AP-  
4 101 through 241-AP-108) shall be under active mixing and Waste Feed  
5 Delivery operations at any one time. Waste Feed Delivery operations are  
6 defined as those which mix and transfer waste, including transfers to the  
7 Waste Treatment and immobilization Plant.

8 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
9 operational record keeping of Waste Feed Delivery operations recorded  
10 into operational records sufficient to determine onset and cessation of such  
11 operations for each tank.

12 Test Method: Not specified

13 Test Frequency: Not applicable.

14 Required Records: Operational records.

15 State-Only: No.

16 Calculation Model: Not applicable.

17 **Condition Approval 11/30/2011**

18 Condition: OPERATIONAL LIMITS

19 No more than two of the four tanks within the 241-AY and 241-AZ Tank  
20 Farm (241-AY-101, 241-AY-102, 241AZ-101, and 241-AZ-102) shall be  
21 under active mixing and Waste Feed Delivery operations at any one time.  
22 Waste Feed Delivery operations are defined as those which mix and  
23 transfer waste, including transfers to the Waste Treatment and  
24 immobilization Plant.

25 Periodic Monitoring: Compliance and monitoring of this condition shall be demonstrated by  
26 operational record keeping of Waste Feed Delivery operations recorded  
27 into operational records sufficient to determine onset and cessation of such  
28 operations for each tank.

29 Test Method: Not specified

30 Test Frequency: Not applicable.

31 Required Records: Operational records.

32 State-Only: No.

33 Calculation Model: Not applicable.

34

1 **1.4.33 Discharge Point: Lagoon Treatment System**

2 200W Area

3 Requirement Citation (WAC or Order Citation): NOC Approval Order DE12NWP-001,  
4 Rev. 1 (7/24/2013)

5 **Condition Approval 2/6/2012**

6 Condition: All TAPs, as submitted in the Permittee's Notice of Construction  
7 Application, shall be below their respective ASIL.

8 Periodic Monitoring: Annual collection and analysis of wastewater between the wastewater  
9 truck discharge point and the truck unloading chamber.

10 Test Method: Surrogate wastewater sample analyzed with an EPA approved method in  
11 40CFR Part 136.

12 Test Frequency: Annually.

13 Required Records: Results of analyses.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

1 **1.4.34 Discharge Point: SST Retrieval Direct Fired Water Heaters**

2 200 Area

3 Requirement Citation (WAC or Order Citation): NOC Approval Order DE12NWP-003  
4 (2/6/2013)

5  
6 **Condition Approval 2/6/2013**

7 Condition: OPERATIONAL LIMITS

8 Maximum number of units is 10 and maximum accumulated heating  
9 capacity is 25 MBtu/hr.

10 Periodic Monitoring: Compliance will be determined by submittal of operational notification  
11 prior to initial operation of each unit with information required to  
12 completely update Table 1 of the Approval Order.

13 Test Method: Not applicable.

14 Test Frequency: Not applicable.

15 Required Records: Manufacturer's data for information required to complete Table 1 of the  
16 Approval Order.

17 State-Only: Yes.

18 Calculation Model: Not applicable.

19

20 **Condition Approval 2/6/2013**

21 Condition: EMISSION LIMIT

22 Emission of sulfur dioxide (SO<sub>2</sub>) will not exceed 1.63 tons/yr.

23 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
24 greater than 0.0015 weight percent sulfur (15 parts per million by  
25 weight).

26 Test Method: Not applicable.

27 Test Frequency: Not applicable.

28 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

29 State-Only: No.

30 Calculation Model: Not applicable.

31

1 **Condition Approval 2/6/2013**

2 Conditions: EMISSION LIMITS

3 Emission of Nitrogen Oxides (NO<sub>x</sub>) will not exceed 0.78 tons/yr.

4 Emission of Carbon Monoxide (CO) will not exceed 0.22 tons/yr.

5 Emission of Volatile Organic Carbon (VOC) will not exceed 0.08 tons/yr.

6 Emission of particulate matter (PM) will not exceed 0.08 tons/yr.

7 Periodic Monitoring: Compliance will be demonstrated by:

8 (A) Use of high efficiency burners

9 (B) Operation of no more than 10 diesel fueled water heaters at any time.

10 (C) Operating and maintaining the heater in accordance with  
11 manufacturer's specifications.

12 (D) Installation and use of non-resettable hour meter.

13 (E) Limiting operating hours equal to or less than 1.0 as calculated by  
14 Equation 1 in the Approval Order.

15 Test Method: Calculation of ratio using Equation 1.

16 Test Frequency: Monthly.

17 Required Records: (1) Manufacturer's data and instructions,

18 (2) Maintenance records, and

19 (3) Twelve-month cumulative operating hours for each engine, calculated  
20 monthly.

21 State-Only: No.

22 Calculation Model: Not applicable.  
23

24 **Condition Approval 2/6/2013**

25 Condition: REPORTING

26 Emissions will be compiled into estimates and reported annually,  
27 beginning as part of the calendar year 2013 non-radioactive  
28 inventory of airborne emissions, pursuant to WAC 173-400-105.

29 Periodic Monitoring: The estimated emissions shall be reported annually.

30 Test Method: Not specified.

31 Test Frequency: Not applicable.

32 Required Records: Emissions estimates.

33 State-Only: No.

34 Calculation Model: Not applicable.  
35

- 1 **Condition Approval 2/6/2013**  
2 Condition: REPORTING  
3 Monthly operating hours per unit and cumulative annual operating  
4 hours on a month-by-month basis will be reported annually,  
5 beginning as part of the calendar year 2013 non-radioactive  
6 inventory of airborne emissions, pursuant to WAC 173-400-105.  
7 Periodic Monitoring: The monthly operating hours and cumulative annual operating  
8 hours shall be reported annually.  
9 Test Method: Not specified.  
10 Test Frequency: Not applicable.  
11 Required Records: Twelve-month cumulative operating hours for each heater.  
12 State-Only: No.  
13 Calculation Model: Not applicable.  
14

1 **1.4.35 Discharge Point: Hanford Site Asbestos Landfill**

2 600 Area

3 Requirement Citation: 40 CFR 61.151(a), 40 CFR 61.151(d), WAC 173-400-040(2), and WAC  
4 173-400-040(7)

5  
6 **Condition Approval**

7 Condition: 40 CFR 61.151(a)

8 (1) Either discharge no visible emissions to the outside air from an  
9 inactive waste disposal site subject to this paragraph; or

10 (2) Cover the asbestos-containing waste material with at least 15  
11 centimeters (6 inches) of compacted nonasbestos-containing  
12 material, and grow and maintain a cover of vegetation on the area  
13 adequate to prevent exposure of the asbestos-containing waste  
14 material. In desert areas where vegetation would be difficult to  
15 maintain, at least 8 additional centimeters (3 inches) of  
16 well-graded, nonasbestos crushed rock may be placed on top of the  
17 final cover instead of vegetation and maintained to prevent  
18 emissions; or

19 (3) Cover asbestos-containing waste with at least 60 centimeter of  
20 compacted nonasbestos-containing material, and maintain to  
21 prevent exposure.

22 Periodic Monitoring: Not applicable.

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Not applicable.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **Condition Approval**

2 Condition: 40 CFR 61.151(d)  
3 Notify in writing at least 45 days prior to excavation. If  
4 construction will begin on a date other than the one in the original  
5 notice, notice of the new date must be provided at least 10 working  
6 days in advance.  
7 (1) Notice shall contain starting and completion dates.  
8 (2) Notice shall contain reason for disturbing the waste.  
9 (3) Notice shall contain procedures to be used to control emissions  
10 (4) Notice shall contain a location for any temporary storage site  
11 and the final disposal site.

12 Periodic Monitoring: Not applicable.  
13 Test Method: Not applicable.  
14 Test Frequency: Not applicable.  
15 Required Records: Not applicable.  
16 State-Only: No.  
17 Calculation Model: Not applicable.

18

19 **Condition Approval**

20 Condition: WAC 173-400-040(2)  
21 Permittee is considered to be in compliance if no complaints are  
22 forwarded or generated by Ecology.  
23 Periodic Monitoring: Not applicable.  
24 Test Method: Not applicable.  
25 Test Frequency: Not applicable.  
26 Required Records: Not applicable.  
27 State-Only: Yes.  
28 Calculation Model: Not applicable.

29

1 **Condition Approval**

- 2 Condition: WAC 173-400-040(7)  
3 Permittee is considered to be in compliance if no complaints are  
4 forwarded or generated by Ecology.  
5 Periodic Monitoring: Monitor per Section 2.7, Tier 2.  
6 Test Method: Not applicable.  
7 Test Frequency: Not applicable.  
8 Required Records: Not applicable.  
9 State-Only: Yes.  
10 Calculation Model: Not applicable.

11

1 **1.4.36 Discharge Point: 600 Area Gas Distribution**

2 600 Area

3 Requirement Citation: WAC 173-491-040(4)(b), WAC 173-491-040(4)(d), WAC 173-491-  
4 040(6)(d), WAC 173-400-040(2), and WAC 173-400-040(6)

5  
6 **Condition Approval**

7 Condition: WAC 173-491-040(4)(b)

8 All gasoline storage tanks shall be equipped with submerged or  
9 bottom fill lines and fittings to vapor balance gasoline vapors with  
10 the delivery transport tank.

11 Periodic Monitoring: Not applicable.

12 Test Method: Not applicable.

13 Test Frequency: Not applicable.

14 Required Records: Not applicable.

15 State-Only: No.

16 Calculation Model: Not applicable.

17  
18 **Condition Approval**

19 Condition: WAC 173-491-040(4)(d)

20 The owner or operator shall not permit the loading of gasoline into  
21 a storage tank equipped with vapor balance fittings from a  
22 transport tank equipped with vapor balance fittings unless the  
23 vapor balance system is attached to the transport tank and operated  
24 satisfactorily.

25 Periodic Monitoring: Not applicable.

26 Test Method: Not applicable.

27 Test Frequency: Not applicable.

28 Required Records: Not applicable.

29 State-Only: No.

30 Calculation Model: Not applicable.

31

1 **Condition Approval**

2 Condition: WAC 173-491-040(6)(d)  
3 (i) The owner or operator of a gasoline transport tank or vapor collection  
4 system shall maintain records of all certification tests and repairs for at  
5 least two years after the test or repair is completed.  
6 (ii) The records of certification tests required by this section shall, as a  
7 minimum, contain:  
8 (A) The transport tank identification number;  
9 (B) The initial test pressure and the time of the reading;  
10 (C) The final test pressure and the time of the reading;  
11 (D) The initial test vacuum and the time of the reading;  
12 (E) The final test vacuum and the time of the reading;  
13 (F) At the top of each report page the company name, date, and  
14 location of the tests on that page; and  
15 (G) Name and title of the person conducting the test.  
16 (iii) The owner or operator of a gasoline transport tank shall annually  
17 certify that the transport tank passed the required tests.  
18 (iv) Copies of all records required under this section shall immediately be  
19 made available to the department, upon written request, at any reasonable  
20 time.

21 Periodic Monitoring: Annually  
22 Test Method: Not applicable  
23 Test Frequency: Not applicable  
24 Required Records: As established by the condition.  
25 State-Only: No.  
26 Calculation Model: Not applicable.

27  
28 **Condition Approval**

29 Condition: WAC 173-400-040(2)  
30 Permittee is considered to be in compliance if no complaints are  
31 forwarded or generated by Ecology.  
32 Periodic Monitoring: Not applicable.  
33 Test Method: Not applicable.  
34 Test Frequency: Not applicable.  
35 Required Records: Not applicable.  
36 State-Only: No.  
37 Calculation Model: Not applicable.

38

- 1 **Condition Approval**  
2 Condition: WAC 173-400-040(6)  
3 Ecology has determined, based on process knowledge, that these  
4 emission units do not emit significant levels of SO<sub>2</sub>.  
5 Periodic Monitoring: Not applicable.  
6 Test Method: Not applicable.  
7 Test Frequency: Not applicable.  
8 Required Records: The Permittee shall annually certify that the processes have not  
9 been modified to increase SO<sub>2</sub> emissions and no SO<sub>2</sub> monitoring is  
10 required.  
11 State-Only: No.  
12 Calculation Model: Not applicable.  
13

1 **1.4.37 Discharge Point: 6120 Tent (200 East)**

2 200 East Area, SE corner near 6120 tent

3 Requirement Citation: NSPS Subpart III

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 7.5 g/KW-hr.

8 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

9 (3) Particulate matter emission limit of 0.40 g/KW-hr.

10 Compliance Requirement: Compliance will be determined by operating and maintaining the  
11 engine in accordance with the manufacturer's recommendations or  
12 instructions.

13 Required Records: (1) Manufacturer's maintenance or operation manual.

14 (2) Documentation of maintenance performed.

15 State-Only: No.

16 Calculation Model: Not applicable.

17

18 **Condition Approval**

19 Condition: Use of fuel per 40 CFR 60.4207 (b)

20 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
21 greater than 0.0015 weight percent sulfur (15 parts per million by  
22 weight).

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **1.4.38 Discharge Point: 100K Water Treatment Plant**

2 100K Water Treatment Plant

3 Requirement Citation: NSPS Subpart IIII

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 4.0 g/KW-hr.

8 (2) Particulate matter emission limit of 0.20 g/KW-hr.

9 Compliance Requirement: Compliance will be determined by operating and maintaining the  
10 engine in accordance with the manufacturer's recommendations or  
11 instructions.

12 Required Records: (1) Manufacturer's maintenance or operation manual.

13 (2) Documentation of maintenance performed.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

17 **Condition Approval**

18 Condition: Use of fuel per 40 CFR 60.4207 (b).

19 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
20 greater than 0.0015 weight percent sulfur (15 parts per million by  
21 weight).

22 Test Method: Not applicable.

23 Test Frequency: Not applicable.

24 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

28

1 **1.4.39 Discharge Point: 385 Building**

2 385 Building

3 Requirement Citation: NSPS Subpart IIII

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 4.0 g/KW-hr.

8 (2) Particulate matter emission limit of 0.30 g/KW-hr.

9 Compliance Requirement: Compliance will be determined by operating and maintaining the  
10 engine in accordance with the manufacturer's recommendations or  
11 instructions.

12 Required Records: (1) Manufacturer's maintenance or operation manual.

13 (2) Documentation of maintenance performed.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

17 **Condition Approval**

18 Condition: Use of fuel per 40 CFR 60.4207 (b).

19 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
20 greater than 0.0015 weight percent sulfur (15 parts per million by  
21 weight).

22 Test Method: Not applicable.

23 Test Frequency: Not applicable.

24 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

1 **1.4.40 Discharge Point: 219H Tent and MO-414 (200 east)**

2 219H Tent and MO-414 (200 East)

3 Requirement Citation: NSPS Subpart III

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 7.5 g/KW-hr.

8 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

9 (3) Particulate matter emission limit of 0.40 g/KW-hr.

10 Compliance Requirement: Compliance will be determined by operating and maintaining the  
11 engine in accordance with the manufacturer's recommendations or  
12 instructions.

13 Required Records: (1) Manufacturer's maintenance or operation manual.

14 (2) Documentation of maintenance performed.

15 State-Only: No.

16 Calculation Mode: Not applicable.

17

18 **Condition Approval**

19 Condition: Use of fuel per 40 CFR 60.4207 (b).

20 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
21 greater than 0.0015 weight percent sulfur (15 parts per million by  
22 weight).

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

1 **1.4.41 Discharge Point: North of MO-414 (200 East) 1 of 2**

2 MO-414

3 Requirement Citation: NSPS Subpart III

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 7.5 g/KW-hr.

8 (2) Carbon monoxide (CO) emission limit of 5.5 g/KW-hr.

9 (3) Particulate matter emission limit of 0.30 g/KW-hr.

10 Compliance Requirement: Compliance will be determined by operating and maintaining the  
11 engine in accordance with the manufacturer's recommendations or  
12 instructions.

13 Required Records: (1) Manufacturer's maintenance or operation manual.

14 (2) Documentation of maintenance performed.

15 State-Only: No.

16 Calculation Mode: Not applicable.

17

18 **Condition Approval**

19 Condition: Use of fuel per 40 CFR 60.4207 (b).

20 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
21 greater than 0.0015 weight percent sulfur (15 parts per million by  
22 weight).

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

26 State-Only: No.

27 Calculation Mode: Not applicable.

28

1 **1.4.42 Discharge Point: North of MO-414 (200 East) 2 of 2**

2 MO-414

3 Requirement Citation: NSPS Subpart III

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 7.5 g/KW-hr.

8 (2) Carbon monoxide (CO) emission limit of 5.5 g/KW-hr.

9 (3) Particulate matter emission limit of 0.30 g/KW-hr.

10 Compliance Requirement: Compliance will be determined by operating and maintaining the  
11 engine in accordance with the manufacturer's recommendations or  
12 instructions.

13 Required Records: (1) Manufacturer's maintenance or operation manual.

14 (2) Documentation of maintenance performed.

15 State-Only: No.

16 Calculation Mode: Not applicable.

17

18 **Condition Approval**

19 Condition: Use of fuel per 40 CFR 60.4207 (b).

20 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
21 greater than 0.0015 weight percent sulfur (15 parts per million by  
22 weight).

23 Test Method: Not applicable.

24 Test Frequency: Not applicable.

25 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

26 State-Only: No.

27 Calculation Mode: Not applicable.

28

1 **1.4.43 Discharge Point: WTP MHF South-40 Laydown Critical Equipment Storage**

2

3 WTP MHF South-40 Laydown Critical Equipment Storage

4 Requirement Citation: NSPS Subpart IIII

5

6 **Condition Approval**

7 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
8 emission limit of 4.7 g/KW-hr.

9 (2) Carbon monoxide (CO) emission limit of 5.0 g/KW-hr.

10 (3) Particulate matter emission limit of 0.40 g/KW-hr.

11 Compliance Requirement: Compliance will be determined by operating and maintaining the  
12 engine in accordance with the manufacturer's recommendations or  
13 instructions.

14 Required Records: (1) Manufacturer's maintenance or operation manual.

15 (2) Documentation of maintenance performed.

16 State-Only: No.

17 Calculation Model: Not applicable.

18

19 **Condition Approval**

20 Condition: Use of fuel per 40 CFR 60.4207 (b).

21 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
22 greater than 0.0015 weight percent sulfur (15 parts per million by  
23 weight).

24 Test Method: Not applicable.

25 Test Frequency: Not applicable.

26 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

27 State-Only: No.

28 Calculation Model: Not applicable.

29

1 **1.4.44 Discharge Point: 2720EA**

2 2720EA

3 Requirement Citation: NSPS Subpart JJJJ

4

5 **Condition Approval**

6 Condition: (1) Hydrocarbons (HC) and nitrogen oxides (NO<sub>x</sub>) emission limit of 13.4  
7 g/kW-hr.

8 (2) Carbon monoxide (CO) emission limit of 519 g/kW-hr.

9 Compliance Requirement: Compliance will be determined by operating and maintaining the  
10 engine in accordance with the manufacturer's recommendations or  
11 instructions.

12 Required Records: (1) Manufacturer's maintenance or operation manual.

13 (2) Documentation of maintenance performed.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

1 **1.4.45 Discharge Point: Rattle Snake Barricade** <sup>2</sup>

2 Rattle Snake Barricade

3 Requirement Citation: NSPS Subpart JJJJ

4

5 **Condition Approval**

6 Condition: (1) Hydrocarbons (HC) and nitrogen oxides (NO<sub>x</sub>) emission limit of  
7 8 g/kW-hr.

8 (2) Carbon monoxide (CO) emission limit of 610 g/kW-hr.

9 Compliance Requirement: Compliance will be determined by operating and maintaining the  
10 engine in accordance with the manufacturer's recommendations or  
11 instructions.

12 Required Records: (1) Manufacturer's maintenance or operation manual.

13 (2) Documentation of maintenance performed.

14 State-Only: No.

15 Calculation Model: Not applicable.

16

17

---

<sup>2</sup> The planned replacement engine will be subject to the applicable requirements of 40 CFR 60 Subpart JJJJ upon installation, which is expected to occur before the end of CY2013. An AOP Notification of Change Not Requiring Revision with appropriate engine compliance information for the replacement Rattle Snake Barricade engine was submitted to Ecology on July 16, 2013.

This revision is planned to be issued after the end of the CY2013. As a result, the regulatory requirements for this discharge point are based on 40 CFR 60 Subpart JJJJ for the new engine and not based on the current engine which is regulated on 40 CFR 63 Subpart ZZZZ.

1 **1.4.46 Discharge Point: 222-SE**

2 222-SE

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions; or develop a written maintenance plan in  
8 a manner consistent with good air pollution control practice for  
9 minimizing emissions.

10 (2) Change oil and filter every 500 hours of operation or annually,  
11 whichever comes first.

12 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
13 whichever comes first.

14 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
15 whichever comes first, and replace as necessary.

16 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
17 the engine in accordance with the manufacturer's recommendations or  
18 instructions; or a written maintenance plan in a manner consistent with  
19 good air pollution control practice for minimizing emissions.

20 (2) Compliance will be demonstrated by installation and operation of  
21 non-resettable hour meter.

22 Required Records: (1) Manufacturer's maintenance or operation manual.

23 (2) Hour meter readings.

24 (3) Documentation of maintenance performed.

25 State-Only: No.

26 Calculation Model: Not applicable.

1 **1.4.47 Discharge Point: 242-A**

2 242-A Evaporator

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions; or develop a written maintenance plan in  
8 a manner consistent with good air pollution control practice for  
9 minimizing emissions.

10 (2) Change oil and filter every 500 hours of operation or annually,  
11 whichever comes first.

12 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
13 whichever comes first.

14 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
15 whichever comes first, and replace as necessary.

16 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
17 the engine in accordance with the manufacturer's recommendations or  
18 instructions; or a written maintenance plan in a manner consistent with  
19 good air pollution control practice for minimizing emissions..

20 (2) Compliance will be demonstrated by installation and operation of  
21 non-resettable hour meter.

22 Required Records: (1) Manufacturer's maintenance or operation manual.

23 (2) Hour meter readings.

24 (3) Documentation of maintenance performed.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

1 **1.4.48 Discharge Point: 234-5Z**

2 234-5Z

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.49 Discharge Point: 400 Area**

2 400 Area

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.50 Discharge Point: 600 Area Fire Station (Building 609A)**

2 600 Area Fire Station (Building 609A)

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of non-  
18 resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.51 Discharge Point: 2721E**

2 2721E

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.52 Discharge Point: Yakima Barricade**

2 Yakima Barricade

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.53 Discharge Point: 282-B**

2 282-B

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.54 Discharge Point: 282-BA**

2 282-BA

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.55 Discharge Point: 225BC**

2 225BC

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.56 Discharge Point: TEDF Pump Station 2 (225E)**

2 TEDF Pump Station 2 (225E)

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect spark plugs every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

24

1 **1.4.57 Discharge Point: WTP MHF South-40 Laydown Entry Gate (Light Tower)**

2 WTP MHF South-40 Laydown Entry Gate

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 1,000 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.58 Discharge Point: WTP MHF North-10 Laydown Area (Light Tower) 1 of 2**

2 WTP MHF North-10 Laydown Area (light tower) 1 of 2

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and Maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 1,000 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.59 Discharge Point: WTP MHF North-10 Laydown Area (Light Tower) 2 of 2**

2 WTP MHF North-10 Laydown Area (light tower) 2 of 2

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6

7 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
8 recommendations or instructions.

9 (2) Change oil and filter every 1,000 hours of operation or annually,  
10 whichever comes first.

11 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
12 whichever comes first.

13 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
14 whichever comes first, and replace as necessary.

15 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
16 the engine in accordance with the manufacturer's recommendations or  
17 instructions.

18 (2) Compliance will be demonstrated by installation and operation of  
19 non-resettable hour meter.

20 Required Records: (1) Manufacturer's maintenance or operation manual.

21 (2) Hour meter readings.

22 (3) Documentation of maintenance performed.

23 State-Only: No.

24 Calculation Model: Not applicable.

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**1.4.60 Discharge Point: WTP MHF South-40 Laydown Yard East X-Ray Tent**

WTP MHF South-40 Laydown Yard East X-Ray Tent

Requirement Citation: NESHAP Subpart ZZZZ

**Condition Approval**

Condition: (1) Operate and maintain the engine in accordance with Manufacturer's recommendations or instructions.

(2) Change oil and filter every 1,000 hours of operation or annually, whichever comes first.

(3) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

(4) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Compliance Requirement: (1) Compliance will be determined by operating and maintaining the engine in accordance with the manufacturer's recommendations or instructions.

(2) Compliance will be demonstrated by installation and operation of non-resettable hour meter.

Required Records: (1) Manufacturer's maintenance or operation manual.

(2) Hour meter readings.

(3) Documentation of maintenance performed.

State-Only: No.

Calculation Model: Not applicable.

1 **1.4.61 Discharge Point: WTP Construction Site Pretreatment Tower Crane**

2 WTP Construction Site Pretreatment Tower Crane

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.62 Discharge Point: WTP Construction Site High-Level Waste Tower Crane**

2 WTP Construction Site High-Level Waste Tower Crane

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions.

8 (2) Change oil and filter every 500 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

1 **1.4.63 Discharge Point: WTP Construction Site Building T-14**

2 WTP Construction Site Building T-14

3 Requirement Citation: NESHAP Subpart ZZZZ

4

5 **Condition Approval**

6 Condition: (1) Operate and maintain the engine in accordance with Manufacturer's  
7 recommendations or instructions

8 (2) Change oil and filter every 1,000 hours of operation or annually,  
9 whichever comes first.

10 (3) Inspect air cleaner every 1,000 hours of operation or annually,  
11 whichever comes first.

12 (4) Inspect all hoses and belts every 500 hours of operation or annually,  
13 whichever comes first, and replace as necessary.

14 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
15 the engine in accordance with the manufacturer's recommendations or  
16 instructions.

17 (2) Compliance will be demonstrated by installation and operation of  
18 non-resettable hour meter.

19 Required Records: (1) Manufacturer's maintenance or operation manual.

20 (2) Hour meter readings.

21 (3) Documentation of maintenance performed.

22 State-Only: No.

23 Calculation Model: Not applicable.

24

1 **1.4.64 Discharge Point: Light Towers Waste Transfer Corridor East**

2 200 East Area, Tank Farm Waste Transfer Corridor East

3 Up to 8 diesel engines used to power light plants at the Waste Transfer Corridor East are  
4 allowed.

5 Requirement Citation: NSPS Subpart IIII

6

7 **Condition Approval**

8 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
9 emission limit of 7.5 g/KW-hr.

10 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

11 (3) Particulate matter emission limit of 0.40 g/KW-hr.

12 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
13 the engine in accordance with the manufacturer's  
14 recommendations or instructions **OR**

15 (2) If the engine and control device is not installed, configured,  
16 operated, or maintained according to the manufacturer's emission-  
17 related written instructions, or the emission-related settings are  
18 changed in a way that is not permitted by the manufacturer, then:

- 19
- 20 • Keep a maintenance plan and records of conducted  
21 maintenance to demonstrate compliance and must, to the  
22 extent practicable, maintain and operate the engines in a  
23 manner consistent with good air pollution control practices  
for minimizing emissions.

24 Required Records: (1) Manufacturer's maintenance or operation manual.

25 (2) Documentation of maintenance performed.

26 (3) Maintenance plan, as appropriate.

27 State-Only: No

28 Calculation Model: Not applicable.

29

1 **Condition Approval**

- 2 Condition: Use of fuel per 40 CFR 60.4207 (b).  
3 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
4 greater than 0.0015 weight percent sulfur (15 parts per million by  
5 weight).  
6 Test Method: Not applicable.  
7 Test Frequency: Not applicable.  
8 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.  
9 State-Only: No.  
10 Calculation Model: Not applicable.

11

12 **Condition Approval**

- 13 Condition: Maintain no more than eight Waste Transfer Corridor East engines.  
14 Periodic Monitoring: Inventory of engines used to power the Waste Transfer Corridor  
15 East light plants. At a minimum; record the current and past  
16 engines in the Corridor with the date the engine was located in the  
17 Corridor and the date it was removed from the Corridor.  
18 Test Method: Not applicable.  
19 Test Frequency: Not applicable.  
20 Required Records: Engine inventory.  
21 State-Only: No.  
22 Calculation Model: Not applicable.

23

1 **1.4.65 Discharge Point: Light Towers Waste Transfer Corridor West**

2 200 East Area, Tank Farm Waste Transfer Corridor East

3 Up to 8 diesel engines used to power light plants at the Waste Transfer Corridor East are  
4 allowed.

5 Requirement Citation: NSPS Subpart IIII

6

7 **Condition Approval**

8 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
9 emission limit of 7.5 g/KW-hr.

10 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

11 (3) Particulate matter emission limit of 0.40 g/KW-hr.

12 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
13 the engine in accordance with the manufacturer's  
14 recommendations or instructions **OR**

15 (2) If the engine and control device is not installed, configured,  
16 operated, or maintained according to the manufacturer's emission-  
17 related written instructions, or the emission-related settings are  
18 changed in a way that is not permitted by the manufacturer, then:

- 19
- 20 • Keep a maintenance plan and records of conducted  
21 maintenance to demonstrate compliance and must, to the  
22 extent practicable, maintain and operate the engines in a  
23 manner consistent with good air pollution control practices  
for minimizing emissions.

24 Required Records: (1) Manufacturer's maintenance or operation manual.

25 (2) Documentation of maintenance performed.

26 (3) Maintenance plan, as appropriate.

27 State-Only: No

28 Calculation Model: Not applicable.

29

1 **Condition Approval**

- 2 Condition: Use of fuel per 40 CFR 60.4207 (b).  
3 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
4 greater than 0.0015 weight percent sulfur (15 parts per million by  
5 weight).  
6 Test Method: Not applicable.  
7 Test Frequency: Not applicable.  
8 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.  
9 State-Only: No.  
10 Calculation Model: Not applicable.

11

12 **Condition Approval**

- 13 Condition: Maintain no more than eight Waste Transfer Corridor East engines.  
14 Periodic Monitoring: Inventory of engines used to power the Waste Transfer Corridor  
15 East light plants. At a minimum; record the current and past  
16 engines in the Corridor with the date the engine was located in the  
17 Corridor and the date it was removed from the Corridor.  
18 Test Method: Not applicable.  
19 Test Frequency: Not applicable.  
20 Required Records: Engine inventory.  
21 State-Only: No.  
22 Calculation Model: Not applicable.

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**1.4.66 Discharge Point: Light Towers C Farm Trailer Area**

200 East Area, C Tank Farm Trailer Area

Up to 8 diesel engines used to power light plants at the C Farm Trailer Area are allowed.

Requirement Citation: NSPS Subpart IIII

**Condition Approval**

Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
emission limit of 7.5 g/KW-hr.

(2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

(3) Particulate matter emission limit of 0.40 g/KW-hr.

Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
the engine in accordance with the manufacturer's  
recommendations or instructions **OR**

(2) If the engine and control device is not installed, configured,  
operated, or maintained according to the manufacturer's emission-  
related written instructions, or the emission-related settings are  
changed in a way that is not permitted by the manufacturer, then:

- Keep a maintenance plan and records of conducted  
maintenance to demonstrate compliance and must, to the  
extent practicable, maintain and operate the engines in a  
manner consistent with good air pollution control practices  
for minimizing emissions.

Required Records: (1) Manufacturer's maintenance or operation manual.

(2) Documentation of maintenance performed.

(3) Maintenance plan, as appropriate.

State-Only: No.

Calculation Model: Not applicable.

1 **Condition Approval**

- 2 Condition: Use of fuel per 40 CFR 60.4207 (b).  
3 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
4 greater than 0.0015 weight percent sulfur (15 parts per million by  
5 weight).  
6 Test Method: Not applicable.  
7 Test Frequency: Not applicable.  
8 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.  
9 State-Only: No.  
10 Calculation Model: Not applicable.

11

12 **Condition Approval**

- 13 Condition: Maintain no more than eight C Farm Trailer Area engines.  
14 Periodic Monitoring: Inventory of engines used to power the C Farm Trailer Area light  
15 plants. At a minimum; record the current and past engines in the  
16 trailer area with the date the engine was located in the trailer area  
17 and the date it was removed from the trailer area.  
18 Test Method: Not applicable.  
19 Test Frequency: Not applicable.  
20 Required Records: Engine inventory.  
21 State-Only: No.  
22 Calculation Model: Not applicable.

23

1 **1.4.67 Discharge Point: Light Towers C Farm**

2 200 East Area, C Tank Farm

3 Up to 8 diesel engines used to power light plants at the C Farm are allowed.

4 Requirement Citation: NSPS Subpart III

5

6 **Condition Approval**

7 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
8 emission limit of 7.5 g/KW-hr.

9 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

10 (3) Particulate matter emission limit of 0.40 g/KW-hr.

11 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
12 the engine in accordance with the manufacturer's  
13 recommendations or instructions **OR**

14 (2) If the engine and control device is not installed, configured,  
15 operated, or maintained according to the manufacturer's emission-  
16 related written instructions, or the emission-related settings are  
17 changed in a way that is not permitted by the manufacturer, then:

- 18
- 19 • Keep a maintenance plan and records of conducted  
20 maintenance to demonstrate compliance and must, to the  
21 extent practicable, maintain and operate the engines in a  
22 manner consistent with good air pollution control practices  
for minimizing emissions.

23 Required Records: (1) Manufacturer's maintenance or operation manual.

24 (2) Documentation of maintenance performed.

25 (3) Maintenance plan, as appropriate.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

29 **Condition Approval**

30 Condition: Use of fuel per 40 CFR 60.4207 (b).

31 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
32 greater than 0.0015 weight percent sulfur (15 parts per million by  
33 weight).

34 Test Method: Not applicable.

35 Test Frequency: Not applicable.

36 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

37 State-Only: No.

38 Calculation Model: Not applicable.

39

1 **Condition Approval**

- 2 Condition: Maintain no more than eight C Farm engines.
- 3 Periodic Monitoring: Inventory of engines used to power the C Farm light plants. At a  
4 minimum; record the current and past engines in the trailer area  
5 with the date the engine was located in the C Farm and the date it  
6 was removed from the C Farm.
- 7 Test Method: Not applicable.
- 8 Test Frequency: Not applicable.
- 9 Required Records: Engine inventory.
- 10 State-Only: No.
- 11 Calculation Model: Not applicable.
- 12

1 **1.4.68 Discharge Point: AY/AZ Farm DMI-LT Light Tower**

2 200 East Area, AY/AZ Farm

3 Requirement Citation: NSPS Subpart IIII

4

5 **Condition Approval**

6 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
7 emission limit of 4.7 g/KW-hr.

8 (2) Carbon monoxide (CO) emission limit of 5.0 g/KW-hr.

9 (3) Particulate matter emission limit of 0.30 g/KW-hr.

10 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
11 the engine in accordance with the manufacturer's  
12 recommendations or instructions **OR**

13 (2) If the engine and control device is not installed, configured,  
14 operated, or maintained according to the manufacturer's emission-  
15 related written instructions, or the emission-related settings are  
16 changed in a way that is not permitted by the manufacturer, then:

- 17 • Keep a maintenance plan and records of conducted  
18 maintenance to demonstrate compliance and must, to the  
19 extent practicable, maintain and operate the engines in a  
20 manner consistent with good air pollution control practices  
21 for minimizing emissions.

22 Required Records: (1) Manufacturer's maintenance or operation manual.

23 (2) Documentation of maintenance performed.

24 (3) Maintenance plan, as appropriate.

25 State-Only: No.

26 Calculation Model: Not applicable.

27

28 **Condition Approval**

29 Condition: Use of fuel per 40 CFR 60.4207 (b).

30 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
31 greater than 0.0015 weight percent sulfur (15 parts per million by  
32 weight).

33 Test Method: Not applicable.

34 Test Frequency: Not applicable.

35 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

36 State-Only: No.

37 Calculation Model: Not applicable.

38

1 **1.4.69 Discharge Point: C and AN Farm Compressors**

2 200 East Area, C and AN Tank Farm

3 Up to 2 diesel engines used to power compressors at the C and AN Farms are allowed.

4 Requirement Citation: NSPS Subpart III

5

6 **Condition Approval**

7 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
8 emission limit of 7.5 g/KW-hr.

9 (2) Carbon monoxide (CO) emission limit of 5.5 g/KW-hr.

10 (3) Particulate matter emission limit of 0.30 g/KW-hr.

11 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
12 the engine in accordance with the manufacturer's  
13 recommendations or instructions **OR**

14 (2) If the engine and control device is not installed, configured,  
15 operated, or maintained according to the manufacturer's emission-  
16 related written instructions, or the emission-related settings are  
17 changed in a way that is not permitted by the manufacturer, then:

- 18 • Keep a maintenance plan and records of conducted  
19 maintenance to demonstrate compliance and must, to the  
20 extent practicable, maintain and operate the engines in a  
21 manner consistent with good air pollution control practices  
22 for minimizing emissions.

23 Required Records: (1) Manufacturer's maintenance or operation manual.

24 (2) Documentation of maintenance performed.

25 (3) Maintenance plan, as appropriate.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

29 **Condition Approval**

30 Condition: Use of fuel per 40 CFR 60.4207 (b).

31 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
32 greater than 0.0015 weight percent sulfur (15 parts per million by  
33 weight).

34 Test Method: Not applicable.

35 Test Frequency: Not applicable.

36 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

37 State-Only: No.

38 Calculation Model: Not applicable.

39

1 **Condition Approval**

2 Condition: Maintain no more than two C and AN Farm Compressor engines.

3 Periodic Monitoring: Inventory of engines used to power the C and AN Farm  
4 compressors. At a minimum; record the current and past engines  
5 used for the compressors with the date the engine was located in  
6 the C or AN Farm and the date it was removed from the C or AN  
7 Farm.

8 Test Method: Not applicable.

9 Test Frequency: Not applicable.

10 Required Records: Engine inventory.

11 State-Only: No.

12 Calculation Model: Not applicable.

13

1 **1.4.70 Discharge Point: Light Towers AN Farm**

2 200 East Area, AN Tank Farm

3 Up to 8 diesel engines used to power light plants at the AN Farm are allowed.

4 Requirement Citation: NSPS Subpart III

5

6 **Condition Approval**

7 Condition: (1) Non-methane hydrocarbons (NMHC) and nitrogen oxides (NO<sub>x</sub>)  
8 emission limit of 7.5 g/KW-hr.

9 (2) Carbon monoxide (CO) emission limit of 6.6 g/KW-hr.

10 (3) Particulate matter emission limit of 0.40 g/KW-hr.

11 Compliance Requirement: (1) Compliance will be determined by operating and maintaining  
12 the engine in accordance with the manufacturer's  
13 recommendations or instructions **OR**

14 (2) If the engine and control device is not installed, configured,  
15 operated, or maintained according to the manufacturer's emission-  
16 related written instructions, or the emission-related settings are  
17 changed in a way that is not permitted by the manufacturer, then:

- 18
- 19 • Keep a maintenance plan and records of conducted  
20 maintenance to demonstrate compliance and must, to the  
21 extent practicable, maintain and operate the engines in a  
22 manner consistent with good air pollution control practices  
for minimizing emissions.

23 Required Records: (1) Manufacturer's maintenance or operation manual.

24 (2) Documentation of maintenance performed.

25 (3) Maintenance plan, as appropriate.

26 State-Only: No.

27 Calculation Model: Not applicable.

28

29 **Condition Approval**

30 Condition: Use of fuel per 40 CFR 60.4207 (b)

31 Periodic Monitoring: Compliance will be demonstrated by use of fuel containing no  
32 greater than 0.0015 weight percent sulfur (15 parts per million by  
33 weight).

34 Test Method: Not applicable.

35 Test Frequency: Not applicable.

36 Required Records: Vendor certification for diesel fuel sulfur content for all purchases.

37 State-Only: No.

38 Calculation Model: Not applicable.

39

1 **Condition Approval**

2 Condition: Maintain no more than eight AN Farm engines.

3 Periodic Monitoring: Inventory of engines used to power the AN Farm light plants. At a  
4 minimum; record the current and past engines in the trailer area  
5 with the date the engine was located in the AN Farm and the date it  
6 was removed from the AN Farm.

7 Test Method: Not applicable.

8 Test Frequency: Not applicable.

9 Required Records: Engine inventory.

10 State-Only: No.

11 Calculation Model: Not applicable.

12

## 2.0 COMPLIANCE AND PERIODIC MONITORING PROVISIONS

Compliance and periodic monitoring provisions are provided in the following sections.

### 2.1 Visible Emission Surveys

Visible emission surveys must be conducted during daylight hours and during periods when the emission unit is operating.

#### Tier 1

This method applies primarily to fossil-fuel combustion units and other emission units that might be a source of visible emissions. It is broken into two parts, Part A and Part B, which are described below. Visible emission surveys are to be conducted during daylight hours, after the unit has reached normal operating temperature and revolutions per minute, or 15 minutes after startup.

Part A – If the combustion unit is certified to meet EPA emission standards contained in 40 CFR Part 89.112, Table 1, then limited visible emission surveys may be performed if operation and maintenance in accordance with manufacturer directions are followed. It is important to note that the Tier reference in 40 CFR Part 89.112, Table 1 is not the Tier reference used in this section. A visible emission survey will be performed upon initial installation as described in Part B to document no visible emissions are observed during normal operations. If visible emissions are observed during normal operations, then a visible emission survey will be performed as described in Part B.

Part B – This method consists of operating personnel observing visible emissions from the emission unit according to the frequency identified in the specific discharge unit listed in Section 1.4. If the operator observes visible emissions for more than 10 consecutive minutes during the observation period, the cause(s) of the visible emissions will be determined and corrective actions taken as necessary, or a visible determination of opacity will be performed using EPA Method 9 of 40 CFR 60, Appendix A. Records of corrective actions taken to reduce opacity shall be maintained and available for Ecology inspection. Where no frequency is specified, visible emission surveys will be performed a minimum of once per quarter.

Provided the emissions observed during the EPA Method 9 of 40 CFR 60 tests are representative of normal operations and the Method 9 test shows the emission unit is compliant, no further observations are required until the next required periodic monitoring. Records of corrective actions taken to reduce opacity shall be maintained and available for Ecology inspection.

If after corrective actions have been taken and results from the EPA Method 9 of 40 CFR 60 tests indicate visible emissions in excess of the limit, a deviation report will be filed with Ecology as required by Section 5.16 of the Standards Terms and General Condition part of the Hanford AOP.

#### Tier 2

Some emission units are unlikely sources of visible emissions and are not expected to exceed applicable opacity limits based on past operating experience and/or expected process behavior. These can include research and development laboratories, analytical laboratories, gas-fired boilers and engines, and some fossil-fueled combustion units. For these emission units, a visible

1 emission survey will be conducted and the results recorded. If visible emissions from one of  
2 these emission units are observed for more than 10 consecutive minutes, an attempt to identify  
3 the cause(s) of the visible emissions will be made and those results recorded. The recorded entry  
4 also will identify any corrective actions taken and the likely frequency of a future recurrence. If  
5 the event is likely to recur, and cannot be demonstrated to consist of water vapor, a determination  
6 of opacity will be made using EPA Method 9. The frequency of the visible emission surveys  
7 shall be as required in the specific discharge unit listed in Section 1.4 unless the following  
8 procedure has been completed satisfactorily. Where no frequency is specified, visible emission  
9 surveys will be performed a minimum of once per year.

10 The procedure for reducing visible emission survey frequencies is as follows:

11 If ten consecutive cold starts are negative, visible emission surveys will be performed only when  
12 visible emissions are observed, but must be conducted at least once per year. Visible emission  
13 surveys during these periods will be conducted for non-radionuclides-emitting stacks according  
14 to the process described in Tier 2.

15 If visible emissions from one of these emission units are observed for more than 10 consecutive  
16 minutes, the event is likely to recur, and cannot be demonstrated to consist of water vapor, the  
17 required frequency for visible emission surveys will revert back to original requirements.

### 18 Tier 3

19 Maintain abatement control technology as required in Attachment 2 of the Hanford AOP for that  
20 particular emission unit.

## 21 **2.2 General Standards Complaint Investigations**

22 Complaints forwarded by Ecology shall be addressed promptly and assessed for corrective  
23 action. An initial informal response shall be made to Ecology within 30 working days of the  
24 Permittee receiving the complaint. This initial response shall document preliminary  
25 investigation results and any planned or completed corrective actions. Follow-up report(s) shall  
26 be provided as directed by Ecology. The Permittee shall maintain records of complaints  
27 forwarded by Ecology.

## 28 **2.3 Measures to Control Fugitive Emissions and Fugitive Dust**

29 Construction projects with a potential to generate particulates will address fugitive emissions and  
30 fugitive dust control during pre-job planning and job safety analysis. Measures to control  
31 fugitive emissions and fugitive dust may include but are not limited to:

- 32 1. Watering.
- 33 2. Use of chemical stabilizers.
- 34 3. Use of physical barriers and/or physical stabilization.
- 35 4. Use of vegetative stabilization.
- 36 5. Clearing only limited areas to reduce dust generation.
- 37 6. Covering haul vehicles.
- 38 7. Minimizing track-out.

- 1 8. Controlling site traffic to decrease disturbance of soil and vegetation to decrease dust  
2 generated from unnecessary vehicular travel.

3 **2.4 Reserved**

4 **2.5 Recordkeeping for Boilers**

5 DOE and the contractor shall maintain appropriate monthly records of the fuel use on each  
6 individual boiler. This data, along with the emission factors presented in Ecology Regulatory  
7 Order 97NM-138, will be used to determine monthly emission levels for individual boilers, and  
8 collectively for the 200 East, 200 West, and 300 Area. If Ecology or the Permittee determines  
9 that emission factors different than the factors specified in Regulatory Order 97NM-138 are  
10 appropriate, the public will be provided with an opportunity for review. WAC 173-400-115  
11 compliance with the standard may be determined based on a certification from the fuel supplier  
12 containing the name of the oil supplier and a statement from the oil supplier that the oil complies  
13 with the specifications under the definition of distillate oil in 40 CFR 60.41b. An annual report  
14 including records of fuel supplier certifications and a certification by the owner or operator that  
15 the records of fuel supplier certifications submitted represent all of the fuel combusted during the  
16 year. Logs of boiler tune-ups and significant boiler maintenance activities will be kept.

17 **2.6 Steam Generating Units Source Tests**

18 All source tests for the boilers regulated by Notice of Construction 97NM-138 have been  
19 conducted using EPA and Ecology approved procedures with the test boilers operating at full  
20 capacity. Tests were conducted on a maximum of five boilers selected on the basis of boiler  
21 capacity and fuel type. The procedure for selecting the test boilers were agreed to by Ecology  
22 and DOE before conducting the tests. A procedure for selecting a representative subset of  
23 boilers for testing once every 5 years was developed before the initial 5 year follow-up test. The  
24 public was provided an opportunity for review of the procedure as part of an AOP modification.

25 The following list is an inventory of the larger boilers that were subject to testing (maximum of  
26 5 boilers):

Distillate Oil-Fired Boilers	Number of Units
200 BHP	5
350 BHP	3
700 BHP	2

27

Natural Gas-Fired Boilers	Number of Units
200 BHP	2
300 BHP	4

28 In 2005, the U.S. Department of Energy Richland Office (DOE-RL) requested the removal of  
29 Air Operating Permit compliance testing for the energy-saving fossil fuel fired boilers operated  
30 by Johnson Controls, Inc (JCI) since 1998 at the Hanford Site. JCI conducted the initial air  
31 compliance test in 1998 and the first 5-year follow-up test in 2003. Both tests demonstrated that  
32 the emissions were within the limits stated in the Notice of Construction (NOC) and Air

1 Operating Permit (AOP). It is obvious that the same compliance can be maintained by  
2 continuously using low sulfur fuel and implementing good combustion practices. Ecology  
3 approved the request of eliminating future 5-year compliance tests on June 15, 2005. The  
4 emissions will be within the NOC and AOP limits as long as JCI continues to use low sulfur fuel  
5 and maintain good combustion practice and maximum achievable control technology (MACT)  
6 standards.

7 **2.7 SO<sub>2</sub> Emissions Compliance**

8 Tier 1: Fuel-Oil Fired Combustion Units:

<b>Required records</b>	<b>Calculation Model (Statement of Basis Section 3.1.1)</b>
1. Amount and type of fuel burned 2. Vendor documentation or fuel analysis once per year.	Model 1

9 Tier 2: Other Significant Emission Units:

10 Ecology has determined, based on process knowledge, that these emission units do not emit  
11 significant levels of SO<sub>2</sub>. The Permittee annually shall certify that the processes have not been  
12 modified to increase SO<sub>2</sub> emissions and no SO<sub>2</sub> monitoring is required.

13 **2.8 Visible Emissions Enforceability**

14 WAC 173-400-040(2)(a) and (2)(b) are federally enforceable sections. Soot blowing and grate  
15 cleaning are allowed if the operator can demonstrate that the emissions will not exceed 20%  
16 opacity for more than 15 minutes in any 8 consecutive hours.

17 **2.9 SO<sub>2</sub> Enforceability**

18 WAC 173-400-040(7) is federally enforceable.

19

1 **3.0 RECORDKEEPING**

2 The Permittee shall maintain records of all required monitoring data and support information.  
3 These records shall be maintained for 5 years from the date of the monitoring sample,  
4 measurement, report, or application. Support information includes all calibration and  
5 maintenance records, all original continuous monitoring records (such as strip charts or  
6 equivalent), and required reports. Most of these records are retained on-site in electronic format.  
7 Regulatory agencies accept electronic records as supporting information.

8 [WAC 173-401-615(2)(a), WAC 173-401-615(2)(c)]

9 **3.1 Emission Calculations**

10 Emission calculations for SO<sub>2</sub>, nitrogen oxides, volatile organic compounds, ammonia, gas  
11 cylinders, chemical inventory, air concentrations, and TAPs can be found in Section 3.1 of the  
12 Statement of Basis for Attachment 1.

13

14

Effective Date: 8/01/2016  
Expiration Date: 3/31/2018

Hanford Air Operating Permit  
Permit No. 00-05-006  
Renewal 2, Revision B

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