Air Operating Permit

- Final -

BP West Coast Products LLC
Cherry Point Refinery

Blaine, Washington

August 26, 2014

northwest Clean Air agency

Serving Island, Skagit & Whatcom Counties

PERMIT INFORMATION

BP Cherry Point Refinery
4519 Grandview Road, Blaine, WA

SIC: 2911
NAICS: 324110
EPA AFS: 53-073-10007

NWCAA ID: 1011-V-W

Responsible Corporate Official

Robert Allendorfer, Business Unit Leader

Duly Authorized Representative

Robert Wallace, HSSE Manager

4519 Grandview Road
Blaine, Washington 98230
(360) 371-1500

Corporate Inspection Contact

Jeff Chalfant
Environmental Superintendent

4519 Grandview Road
Blaine, Washington 98230
(360) 371-1500

Northwest Clean Air Agency

1600 South Second Street
Mount Vernon, WA 98273-5202
(360) 428-1617

Prepared by

Agata McIntyre, P.E.
Engineering Manager
(360) 428-1617 x 213

Air Operating Permit Number:	Issuance Date:
015R1M1	January 15, 2013
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Modification 1	August 26, 2014
Supersedes Permit Number:	**Expiration Date:**
015R1	January 15, 2018
Application Date:	**Renewal Application Due:**
December 14, 2007	January 15, 2017

ATTEST

This permit is issued in accordance with the provisions of Section 322 of the Regulation of the Northwest Clean Air Agency and the provisions of Chapter 173-401 Washington Administrative Code.

Pursuant to Section 322 of the Regulation of the Northwest Clean Air Agency and Chapter 173-401 Washington Administrative Code, BP West Coast Products LLC is authorized to operate the Cherry Point Refinery subject to the terms and conditions of this permit.

Northwest Clean Air Agency Approval:

Agata McIntyre P.E.

Date: 8/26/14

Agata McIntyre, P.E.
Engineering Manager

Date: 8/26/14

Mark Buford, P.E.
Assistant Director

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SECTION 1 EMISSION UNIT IDENTIFICATION

Section 1 provides a listing of the air pollution emission units associated with different process units/areas within the BP Cherry Point Refinery. This section includes descriptions and equipment ratings provided for informational purposes only, and is not an enforceable part of this permit.

Summary of Emission Unit Tables Listed in Section 1

1.1	Crude and Vacuum Unit	1.11	Calciners and Coke Handling
1.2	Reformer and Naphtha Units	1.12	Boilers and Cooling Towers
1.3	Hydrocracker Unit	1.13	Flares and Flare Gas Recovery
1.4	Delayed Coker Unit	1.14	Sulfur Recovery Complex
1.5	#1 Diesel HDS Unit	1.15	Shipping, Pumping and Receiving
1.6	#2 Diesel HDS Unit	1.16	Non-Hazardous Landfarm
1.7	#3 Diesel HDS Unit	1.17	Oil Wastewater Collection, Storage and Treatment
1.8	Isomerization Unit	1.18	Petroleum Storage Tanks/Vessels
1.9	Light Ends and LPG Units	1.19	Stationary Internal Combustion Engines
1.10	Hydrogen Plant		

1.1. Crude and Vacuum Unit

Description (ID #)	Constructed / Modified	Comments
Crude Heater (10-1401)	1970/1977	OAC 211c, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 720 MMBtu/hour
South Vacuum Heater (10-1451)	1970/2005	OAC 211c, OAC 902a, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 222 MMBtu/hour, ULNB, NOx CEMS
North Vacuum Heater (10-1452)	1983	OAC 273b, PSD-5, ACO 05, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, firing capacity 77 MMBtu/hour, O_2 CEMS
Vacuum Tower and Vacuum Diesel Fractionator Tail Gases (Vacuum Tail Gas)	1970/1999	OAC 689b, OAC 814b , Dedicated amine scrubber install in 1999
Non-condensable VOC, hot wells with contact condensers	1970	NWCAA 580
Equipment Components	1970/1998	40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC

1.2. Reformer and Naphtha Units

Description (ID #)	Constructed / Modified	Comments
#1 Reformer Heater (11-1403:1406)	1970/2000/ 2007	OAC 211c, OAC 977, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 1075 MMBtu/hour
#1 Reformer Unit, Process Vents		40 CFR 63 Subpart CC, 40 CFR 63 Subpart UUU
#1 Reformer Unit, Equipment Components	1970/2000/ 2007	OAC 977, 40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC
Naphtha HDS Charge Heater (11-1401)	1970	OAC 211c, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 110 MMBtu/hour
Naphtha HDS Stripper Reboiler (11-1402)	1970	OAC 211c, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 86 MMBtu/hour
Naphtha Unit, Process Vents		40 CFR 63 Subpart CC
Naphtha HDS Unit, Equipment Components	1970	40 CFR 63 Subpart CC
#2 Reformer Heater (21-1421:1424)	1987	OAC 305a, PSD-7, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, firing capacity 340 MMBtu/hour
#2 Reformer Unit, Process Vents		40 CFR 63 Subpart CC, 40 CFR 63 Subpart UUU
#2 Reformer Unit, Equipment Components	1987	OAC 977, 40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC

1.3. Hydrocracker Unit

Description (ID #)	Constructed / Modified	Comments
Hydrocracker 1st Stage Reactor Heater, R-1 (15-1401)	1970/2006	OAC 211c, OAC 966b, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 121 MMBtu/hour, ULNB, NOx CEMS
Hydrocracker 2nd Stage Reactor Heater, R-4 (15-1402)	1970	OAC 211c, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 60 MMBtu/hour
Hydrocracker 1st Stage Fractionator Reboiler (15-1451)	1970/1992/ 2011	OAC 211c, OAC 1054, OAC 1067a, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 198 MMBtu/hour, ULNB, NOx CEMS
Hydrocracker 2nd Stage Fractionator Reboiler (15-1452)	1970/1974 /2003	OAC 211c, OAC 847b, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 183 MMBtu/hour
Process Vents	1970	40 CFR 63 Subpart CC
Equipment Components	1970	OAC 850, OAC 966b, 40 CFR 63 Subpart CC, 40 CFR 60 Subpart GGGa

1.4. Delayed Coker Unit

Description (ID #)	Constructed / Modified	Comments
North Coker Charge Heater (12-1401-01)	1970/1999	OAC 211c, OAC 689b, OAC 1054, ACO 05, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, 40 CFR 64 CAM, BART Order 7836 Rev. 1, firing capacity 190 MMBtu/hour, low-NOx with FGR
South Coker Charge Heater (12-1401-02)	1970/1999	OAC 211c, OAC 689b, OAC 1054, ACO 05, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, 40 CFR 64 CAM, BART Order 7836 Rev. 1, firing capacity 190 MMBtu/hour, low-NOx with FGR
Delayed Coker Blowdown Vapors	1970/2005	OAC 890c, 40 CFR 60 Subpart GGG
Process Vents	1970	40 CFR 63 Subpart CC
Equipment Components	1970/1999	40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC

1.5. #1 Diesel HDS Unit

Description (ID #)	Constructed / Modified	Comments
#1 Diesel HDS Charge Heater (13-1401)	1970/2006	OAC 211c, OAC 949a, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 48 MMBtu/hour, ULNB, NOx CEMS
#1 Diesel HDS Stabilizer Reboiler (13-1402)	1970/2006	OAC 211c, OAC 949a, OAC 1054, ACO 05, 40 CFR 63 Subpart DDDDD, BART Order 7836 Rev. 1, firing capacity 56 MMBtu/hour, ULNB, NOx CEMS
Equipment Components	1970	OAC 949a, 40 CFR 63 Subpart CC

1.6. #2 Diesel HDS Unit

Description (ID #)	Constructed / Modified	Comments
#2 Diesel HDS Charge Heater (26-1401)	2006	OAC 892b, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, firing capacity 35 MMBtu/hour
Equipment Components	2006	OAC 892b, 40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC

1.7. #3 Diesel HDS Unit

Description (ID #)	Constructed / Modified	Comments
#3 Diesel HDS Charge Heater (27-1401)	2012	OAC 1064a, PSD-10-01, 40 CFR 60 Subpart Ja, 40 CFR 63 Subpart DDDDD, firing capacity 28 MMBtu/hour, ULNB
Equipment Components	2012	40 CFR 60 Subpart GGGa, 40 CFR 63 Subpart CC

1.8. Isomerization Unit

Description	Constructed / Modified	Comments
Isomerization Heater (45-1402)	2004	OAC 814b, PSD-02-04 Amendment 1, 40 CFR 60 Subpart J, 40 CFR 63 Subpart DDDDD, firing capacity 13 MMBtu/hour, ULNB
Equipment Components	2004	OAC 814b, 40 CFR 60 Subpart GGG, 40 CFR 63 Subpart CC

1.9. Light Ends and LPG Units

Description (ID #)	Constructed / Modified	Comments
LPG Compressor (22-1801)		40 CFR 60 Subpart GGG
Equipment Components	1987	NWCAA 580, 40 CFR 60 Subpart GGG

1.10. Hydrogen Plants

Description (ID #)	Constructed / Modified	Comments
#1 Hydrogen Plant, North Reforming Furnace (14-1401)	1970	OAC 211c, OAC 1054, ACO 05, firing capacity 325 MMBtu/hour, BART Order 7836 Rev. 1
#1 Hydrogen Plant, South Reforming Furnace (14-1402)	1970	OAC 211c, OAC 1054, ACO 05, firing capacity 325 MMBtu/hour, BART Order 7836 Rev. 1
#1 Hydrogen Plant Vent	1970	Off-gas can be routed to Praxair for CO_2 utilization
#1 Hydrogen Plant, Equipment Components	1970	
#2 Hydrogen Plant, SMR Furnace (46-1401)	2012	OAC 1064a, PSD-10-01, 40 CFR 60 Subpart Ja, 496 MMBtu/hr, ULNB and SCR, SO_2, CO, NOx and CO_2 CEMS, 40 CFR 63 Subpart DDDDD
#2 Hydrogen Plant, Flare (46-2803)	2012	OAC 1064a, PSD-10-01, 40 CFR 63 Subpart Ja
#2 Hydrogen Plant, Equipment Components	2012	40 CFR 60 Subpart GGGa

1.11. Calciners and Coke Handling

Description (ID #)	Constructed / Modified	Comments
#1 and #2 Calciners, Stack #1 (20-70)	1978/1998	OAC 211c, OAC 660a, OAC 689b, ACO 05, 40 CFR 60 Subpart J for refinery fuel gas used for supplemental firing, 40 CFR 64 CAM, Stack emissions controlled by caustic scrubber and WESP, SO_2 and NOx CEMS
#3 Calciner, Stack #2 (20-71)	1985	OAC 985a, PSD-89-2, PSD-95-01, ACO 05, 40 CFR 60 Subpart J for refinery fuel gas used for supplemental firing, 40 CFR 64 CAM, Stack emissions controlled by caustic scrubber and WESP, SO_2 and NOx CEMS
Calcined Coke Handling Operations (20-72)	1988/1990/ 1992	PSD-89-2

1.12. Boilers and Cooling Towers

Description (ID#)	Constructed /Modified	Comments
#4 Boiler (30-1604)	1991/1993/ 1994/1999/ 2002/2010	OAC 298, OAC 351e, ACO 05, 40 CFR 60 Subpart J, 40 CFR 60 Subpart Db, 40 CFR 63 Subpart DDDDD, firing capacity 216 MMBtu/hour, ULNB, NOx CEMS
#5 Boiler (30-1606)	2004	OAC 814b, PSD-02-04 Amendment 1, 40 CFR 60 Subpart J, 40 CFR 60 Subpart Db, 40 CFR 63 Subpart DDDDD, firing capacity 363 MMBtu/hour, ULNB, CO and NOx CEMS
#6 Boiler (30-1607)	2007	OAC 1001c, PSD-07-01 Amendment 1, 40 CFR 60 Subpart Ja, 40 CFR 60 Subpart Db, 40 CFR 63 Subpart DDDDD, firing capacity 363 MMBtu/hour, ULNB and SCR, CO and NOx CEMS
#7 Boiler (30-1608)	2007	OAC 1001c, PSD-07-01 Amendment 1, 40 CFR 60 Subpart Ja, 40 CFR 60 Subpart Db, 40 CFR 63 Subpart DDDDD, firing capacity 363 MMBtu/hour, ULNB and SCR, CO and NOx CEMS
Boilerhouse Equipment Components	2004/2007	OAC 1001c
# 1 Cooling Tower (30)	1970	40 CFR 63 Subpart CC
#2 Cooling Tower (24)	1990	OAC 289a, 40 CFR 63 Subpart CC

1.13. Flares and Flare Gas Recovery

Description (ID #)	Constructed / Modified	Comments
High Pressure Flare (29-110)	1970	OAC 211c, NWCAA 462, 40 CFR 60 Subpart Ja, 40 CFR 63 Subpart A, 40 CFR 63 Subpart CC, BART Order 7836 Rev. 1
Low Pressure Flare (29-111)	1970	OAC 211c, NWCAA 462, 40 CFR 60 Subpart Ja, 40 CFR 63 Subpart A, 40 CFR 63 Subpart CC, BART Order 7836 Rev. 1
High Pressure Flare Gas Recovery Compressor (28-1803)	1970	40 CFR 63 Subpart CC
Low Pressure Flare Gas Recovery Compressor (28-1804)	1970	40 CFR 63 Subpart CC
Equipment Components	1970	NWCAA 580, 40 CFR 63 Subpart CC

1.14. Sulfur Recovery Complex

Description (ID #)	Constructed / Modified	Comments
Incinerator (17-1481)	1975/2006	OAC 211c, OAC 890c, OAC 1054, 40 CFR 60 Subpart J, 40 CFR 63 Subpart UUU, BART Order 7836 Rev. 1. Refinery fuel gas used for supplemental firing, SO_2 CEMS
#2 Tail Gas Unit (25)	2006	OAC 890c, 40 CFR 60 Subpart J, 40 CFR 63 Subpart UUU, BART Order 7836 Rev. 1. Natural gas used for supplemental firing, SO_2 CEMS
Sulfur Pits & Sulfur Tanks	1970/2001/ 1984	OAC 890c
Process Vents		40 CFR 63 Subpart CC
Sour Water Unit, Equipment Components	1970/2010	OAC 1043, 40 CFR 60 Subpart GGGa

1.15. Shipping, Pumping & Receiving

Description (ID #)	Constructed / Modified	Comments
Chemical Treater, Equipment Components	1971	40 CFR 63 Subpart CC
Truck Rack (33-150)	1994/1996/ 2001	OAC 527d, 40 CFR 63 Subpart R, 40 CFR 63 Subpart CC, NWCAA 580
Truck Rack Vapor Combustor (33-151)		OAC 527d, 40 CFR 60 Subpart J for gasoline vapors, natural gas used for supplemental firing of the thermal oxidizer
Truck Rack, Equipment Components	1994	40 CFR 63 Subpart CC, 40 CFR 63 Subpart R
Marine Terminal, North Dock (35-160)	2001	OAC 716b, 40 CFR 63 Subpart Y, 40 CFR 63 Subpart CC, natural gas used for supplemental firing of the vapor combustor
Marine Terminal South Dock (35-162)	1970	
Marine Terminal, Vapor Combustor (35-161)	2001	
Marine Terminal, Equipment Components	1970/1993/ 2001	
Dock Piping System Equipment Components	1993	NWCAA 580
LPG Loading, Equipment Components (37)	1970	NWCAA 580
Organic Liquids Distribution		40 CFR 61 Subpart BB, 40 CFR 63 Subpart EEEE
NE Rail Facility	2013	OAC 1142, 40 CFR 60 Subpart QQQ, 40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC

1.16. Non-Hazardous Waste Landfarm

Description (ID #)	Constructed / Modified	Comments
Landfarm for non-hazardous wastes	1992	OAC 382a

1.17. Oily Wastewater Collection, Storage and Treatment

Description (ID #)	Constructed /Modified	Comments
General		OAC 348a
Process Drains and Junction Boxes		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Individual Drain systems		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Gauging and Sampling Devices		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Covers & Openings		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Miscellaneous Sewer Lines and Covers		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
API Separators (32)	1970/1991/ 1992	40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
API Effluent Sump-Floating Roof (32)		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Closed Vent Systems		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Carbon Adsorption Control Devices		40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC
Containers		40 CFR 61 Subpart FF
Internal Floating Roof, Waste Water Storage Tanks (Tanks 320, 321, 322, 323)		NWCAA 560, NWCAA 580, 40 CFR 61 Subpart FF, 40 CFR 63 Subpart CC

1.18. Petroleum Storage Tanks/Vessels

Tank #	Tank Service	MTVP	Size Mbbls	Roof Type	# Seals	Constructed / Modified	Comments
1	Petroleum Products	>1.5	139.5	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
2	Petroleum Products	>1.5	139.8	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
3	Petroleum Products	>1.5	137.9	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
4	Petroleum Products	>1.5	139.7	IFR	2	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
5	Petroleum Products	>1.5	139.7	IFR	2	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
6	Petroleum Products	>1.5	139.5	IFR	2	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
7	Petroleum Products	>1.5	139.8	IFR	2	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
8	Petroleum Products	>1.5	138.9	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
9	Petroleum Products	>1.5	99.5	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
10	Petroleum Products	>1.5	142.8	IFR	2	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
11	Petroleum Products	<1.5	142.7	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
12	Petroleum Products	<1.5	142.8	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
13	Petroleum Products	<1.5	137.4	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
14	Petroleum Products	>1.5	142.3	IFR	1	1970	40 CFR 63 Subpart CC - Group 1, OAC 562d
15	Petroleum Products	<1.5	141.7	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
16	Petroleum Products	<1.5	142.4	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
17	Petroleum Products	>1.5	140.0	IFR	2	1970	40 CFR 63 Subpart CC - Group 1
18	Petroleum Products	>1.5	194.4	IFR	2	1970	40 CFR 63 Subpart CC - Group 1
19	Petroleum Products	<1.5	140.3	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
20	Petroleum Products	<1.5	139.5	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
21	Petroleum Products	>1.5	201.0	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
22	Petroleum Products	>1.5	138.8	IFR	2	1975	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart K
23	Petroleum Products	<1.5	201.0	IFR	1	1970	40 CFR 63 Subpart CC - Group 2

Tank #	Tank Service	MTVP	Size Mbbls	Roof Type	# Seals	Constructed / Modified	Comments
24	Petroleum Products	<1.5	205.3	IFR-D	2	1994	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb
25	Petroleum Products	>1.5	22.6	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
26	Petroleum Products	>1.5	97.5	IFR	2	1970	40 CFR 63 Subpart CC - Group 1
27	Petroleum Products	>1.5	139.8	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
28	Petroleum Products	<1.5	144.2	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
29	Petroleum Products	<1.5	49.7	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
30	Petroleum Products	<1.5	138.3	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
31	Petroleum Products	>1.5	139.4	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
32	Petroleum Products	<1.5	143.6	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
33	Petroleum Products	<1.5	102.9	IFR	1	1970	40 CFR 63 Subpart CC - Group 2
34	Distillate	<1.5	144.8	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
37	Distillate	<1.5	138.4	Cylinder		1975	40 CFR 63 Subpart CC - Group 2, 40 CFR 60 Subpart K
38	Distillate	<1.5	149.5	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
40	Crude	>1.5	400.0	IFR	2	2004	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb, OAC 897a
41	Crude	>1.5	241.4	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
42	Crude	>1.5	247.7	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
43	Crude/Jet/Misc.	>1.5	248.3	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
44	Crude	>1.5	249.3	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
45	Crude	>1.5	245.4	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
46	Crude	>1.5	248.8	IFR	1	1970	40 CFR 63 Subpart CC - Group 1
47	Crude	>1.5	260.8	IFR	1	1973	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart K

Tank #	Tank Service	MTVP	Size Mbbls	Roof Type	# Seals	Constructed / Modified	Comments
48	Crude	>1.5	260.2	IFR	1	1973	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart K
49	Crude	>1.5	389.6	IFR	2	1998	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb, OAC 620b
50	Crude	>1.5	485.7	IFR	1	1989	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb
60	Pentane/Butane		30.0	Sphere		1990	Pressure vessel
61	Pentane/Butane		30.0	Sphere		1970	Pressure vessel
62	Pentane/Butane		30.0	Sphere		1990	Pressure vessel
63	Pentane/Butane		15.0	Sphere		1970	Pressure vessel
64	Pentane/Butane		15.0	Sphere		1970	Pressure vessel
65	Pentane/Butane		15.0	Sphere		1970	Pressure Vessel
70	Petroleum Products	<1.5	102.6	Cylinder		1970	40 CFR 63 Subpart CC - Group 2
71	Petroleum Products	>1.5	30.8	IFR	2	1992	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb
72	Diesel/Gasoline	>1.5	18.4	IFR	2	1995	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb, OAC 527d
73	Diesel/Gasoline	>1.5	9.7	IFR	2	1995	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb, OAC 527d
74	Diesel/Gasoline	>1.5	9.7	IFR	2	1995	40 CFR 63 Subpart CC - Group 1, 40 CFR 60 Subpart Kb, OAC 527d
81	LPG		1.8	Bullet		1986	Pressure Vessel
82	LPG		1.8	Bullet		1986	Pressure Vessel
83	LPG		1.8	Bullet		1986	Pressure Vessel
84	LPG		1.8	Bullet		1986	Pressure Vessel
85	LPG		1.8	Bullet		1986	Pressure Vessel

Tank #	Tank Service	MTVP	Size Mbbls	Roof Type	# Seals	Constructed / Modified	Comments
86	LPG		1.8	Bullet		1986	Pressure Vessel
87	LPG		1.8	Bullet		1986	Pressure Vessel
88	LPG		1.8	Bullet		1986	Pressure Vessel
89	LPG		1.8	Bullet		1986	Pressure Vessel
Tankfarm Equipment Components							40 CFR 63 Subpart CC (LDAR)
IFR=Internal floating roof, IFR-D=Internal floating roof with geodesic dome cover							

1.19. Stationary Internal Combustion Engines

ID #	Description	Constructed	Location
All engines are subject to the applicable requirements of 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ.			
91-GEN-P1E	157 hp, diesel-fired, emergency generator	2011	P1 Substation
91-GEN-P2E	157 hp, diesel-fired, emergency generator	2011	P2 Substation
91-GEN-P3E	230 hp, diesel-fired, emergency generator	2011	P3 Substation
91-GEN-P4E	230 hp, diesel-fired, emergency generator	2011	P4 Substation
91-GEN-P5E	230 hp, diesel-fired, emergency generator	2011	P5 Substation
91-GEN-P6E	230 hp, diesel-fired, emergency generator	2011	P6 Substation
91-GEN-P7E	230 hp, diesel-fired, emergency generator	2011	P7 Substation
91-GEN-P8E	230 hp, diesel-fired, emergency generator	2011	P8 Substation
91-GEN-P10E	230 hp, diesel-fired, emergency generator	2011	P10 Substation
91-GEN-P21E	230 hp, diesel-fired, emergency generator	2011	P3 Substation, backup for Unit 21
91-GEN-P26E	230 hp, diesel-fired, emergency generator	2011	Unit 26 (ULSD) MCC Building
91-GEN-P30E	230 hp, diesel-fired, emergency generator	2011	P5 Substation, backup for Boilerhouse
91-GEN-EPIJ	230 hp, diesel-fired, emergency generator	2011	P5E Substation
91-GEN-SPARE	230 hp, diesel-fired, emergency generator	2011	MS-1 Substation, spare
91-GEN-MCR1E	470 hp, diesel-fired, emergency generator	2012	P6 Substation
91-GEN-MCR2E	470 hp, diesel-fired, emergency generator	2012	P6 Substation
40-2835	1,356 hp, diesel-fired, emergency generator	2012	Fresh Water Pond area
12-1564	175 hp, diesel-fired, fire water pump	2012	South of Delayed Coker Unit

SECTION 2 STANDARD TERMS AND CONDITIONS

Standard terms and conditions are administrative and/or other requirements that typically have no ongoing compliance monitoring requirements. The permittee must comply with the requirements listed below. All terms and conditions of this permit are enforceable by the Environmental Protection Agency (EPA) Administrator and by citizens under the Federal Clean Air Act (FCAA), except for those terms and conditions designated in the permit as "State Only". A requirement designated "State Only" is enforceable only by the state or the NWCAA, and not by EPA or through citizen suits. Unless the text of the term is specifically identified to be "*Directly Enforceable*", the language of the cited regulation takes precedence over a paraphrased requirement. A permit condition labeled "*Directly Enforceable*" is a legal requirement, and the permit shield in condition 2.3.1 of this permit applies.

2.1. Compliance Requirements

2.1.1. Duty to Comply

2.1.1.1. WAC 173-401-620(2)(a) (11/4/93)

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of RCW 70.94 and, for federally enforceable provisions, a violation of the Federal Clean Air Act (FCAA). Such violations are grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

2.1.1.2. State Only: NWCAA 322.3 (11/17/11)

It shall be unlawful for any person to operate a source that is subject to the requirements of Chapter 173-401 WAC without complying with the provisions of Chapter 173-401 WAC and any permit issued under its authority.

2.1.2. Civil and Criminal Penalties

2.1.2.1. WAC 173-400-230(2) (3/20/93), WAC 173-400-240 (3/22/91), NWCAA 131 (4/14/93), NWCAA 132 & 133 (10/13/94), and Section 113 of the FCAA

Any person who violates applicable regulations or aids and abets in a violation, as notified in accordance with this section, shall be subject to penalties.

2.1.2.2. State Only: NWCAA 131, 132 & 133 (11/8/07)

Any person who violates applicable regulations or aids and abets in a violation, as notified in accordance with this section, shall be subject to penalties.

2.1.2.3. WAC 173-400-250 (9/20/93) and NWCAA 133.2 (10/13/94)
State Only: NWCAA 133.2 (11/8/07)

Penalties issued may be appealed to the pollution control hearings board within 30 days after notice is served.

2.1.3. Need to Halt or Reduce Activity Not a Defense

WAC 173-401-620(2)(b) (11/4/93)

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the terms and conditions of this permit.

2.1.4. Duty to Provide Information

WAC 173-401-620(2)(e) (11/4/93)

The permittee shall furnish to the NWCAA, within a reasonable time, any information that the NWCAA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the NWCAA copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA Administrator along with a claim of confidentiality. The NWCAA shall maintain confidentiality of such information in accordance with RCW 70.94.205 and the NWCAA Regulation.

2.1.5. Confidential Information

2.1.5.1. NWCAA 114.1 (4/14/93)

Whenever the permittee requests that records or information eligible for confidentiality status be made confidential by the Board of the NWCAA, the NWCAA shall maintain confidentiality of such information in accordance with NWCAA 114. The records or information shall be only for the confidential use of the Board, the Advisory Council, and the NWCAA staff, but may not be accessed if, in the opinion of the Board, there is a conflict of interest.

2.1.5.2. State Only: NWCAA 114 (11/8/07)

Whenever any records or other information other than ambient air quality data or emission data furnished to or obtained by the Agency, relates to processes or production unique to the owner or operator, or are likely to affect adversely the competitive position of such owner or operator if released to the public or to a competitor, and the owner or operator of such processes or production so certifies, such records or information shall be only for the confidential use of the NWCAA.

Nothing herein shall be construed to prevent the use of records or information by the NWCAA in compiling or publishing analyses or summaries relating to the general condition of the outdoor atmosphere: provided, that such analyses or summaries do not reveal any information otherwise confidential under the provisions of this section: provided further, that emission data furnished to or obtained by the Board shall be correlated with applicable emission limitations and other control measures and shall be available for public inspection during normal business hours at the office of the NWCAA.

2.1.6. Inspection and Entry

WAC 173-400-105(3) (9/20/93), WAC 173-401-630(2) (11/4/93) NWCAA 110 & 111 (1/8/69)

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow Ecology, NWCAA or an authorized representative to:

(i) Enter upon the permittee's premises where a Chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

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

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

(iv) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

No person shall willfully interfere with or obstruct the Control Officer or any NWCAA employee and/or assigned agent in carrying out any lawful duty.

2.1.7. Investigation and Studies

NWCAA 110 (1/8/69)

The Control Officer and/or his qualified agents may make any reasonable investigation or study which is necessary for the purpose of standards or any amendments thereto on reducing the amount or kind of contaminant.

When investigating conditions specific to the control, recovery or release of air contaminants, the Control Officer or his duly authorized representatives shall have the power to enter at reasonable times upon any private or public property, except non-multiple unit private dwellings housing two families or less.

If an authorized employee of the Agency, during the course of an inspection desires to obtain a sample of air contaminant, he shall notify the owner or lessee of the time and place of obtaining a sample so the owner or lessee has the opportunity to take a similar sample at the same time and place. A receipt shall be given to the owner or lessee for the sample obtained.

2.1.8. Source Testing

2.1.8.1. WAC 173-400-105(4) (9/20/93)

To demonstrate compliance, Ecology or the NWCAA may conduct or require that a test be conducted of the source using approved EPA methods from 40 CFR 60 Appendix A which are adopted by reference, or approved procedures contained in the "Source Test Manual – Procedures for Compliance Testing," state of Washington, Department of Ecology, as of July 12, 1990, on file at Ecology. The operator of a source may be required to provide the necessary platform and sampling ports for Ecology personnel or others to perform a test of an emissions unit. Ecology shall be allowed to obtain a sample from any emissions unit. The operator of the source shall be given an opportunity to observe the sampling and to obtain a sample at the same time.

2.1.8.2. State Only: WAC 173-400-105(4) (4/1/11)

To demonstrate compliance, the required test must be conducted using approved EPA methods from 40 CFR Parts 51, 60, 61 and 63 (in effect on July 1, 2010) or procedures contained in "*Source Test Manual – Procedures for Compliance Testing*," state of Washington, department of ecology, as of September 20, 2004, on file at ecology. All other language is the same as 2.1.8.1.

2.1.8.3. State Only: NWCAA 367 and Appendix A (7/14/05)

Source tests required by NWCAA to assess compliance with an air emission standard shall be conducted according to the following provisions:

(i) A source test plan shall be submitted to the NWCAA for approval for all compliance source tests at least 30 days prior to scheduled testing. A summary of the test shall accompany the test plan and be submitted on a template provided by the NWCAA.

(ii) Once a test plan has been approved, any changes in test dates or methodology shall require NWCAA approval.

(iii) Results of required source tests must be submitted within sixty days of completion of the test unless prior approval is granted by NWCAA.

2.1.9. Testing and Sampling

2.1.9.1. NWCAA 360.1 (2/14/73)

Any person operating or using any article, machine, equipment or other contrivance shall provide and maintain such sampling and testing facilities as specified in the Order of Approval to Construct or an Air Operating Permit.

2.1.9.2. State Only: NWCAA 367 and Appendix A (7/14/05)

All ambient monitoring, compliance testing, continuous monitoring systems and continuous opacity monitoring systems required by a regulation, order of approval or permit issued by the NWCAA shall comply with the applicable requirements of Section 367 and Appendix A of the NWCAA Regulation. The applicable requirements of Section 367 and Appendix A of the NWCAA Regulation are in addition to any monitoring, testing, calibration or quality assurance/quality control requirements that otherwise apply.

Any person operating an air operating permit source may, at any time, be required to monitor the ambient air, process emissions or conduct emission tests as deemed necessary by the Control Officer.

The Control Officer may take such samples and perform any tests and investigations deemed necessary to determine the accuracy of the monitoring reports and tests submitted to the Agency, and evaluate the validity of the data. The owner or operator may also be required by the Control Officer to take a sample using an approved procedure and submit the results thereof within a reasonable period of time.

Once initiated, a compliance test shall be completed unless interrupted by severe weather, test equipment failure or other conditions beyond control of the facility. Failure to complete a test shall be a violation of the requirement to test, and, in cases where the initial data indicate a non-compliance of the applicable emission standard, the results may be considered a violation of that standard.

2.1.10. Ambient Air and Continuous Emission Monitoring

2.1.10.1. NWCAA 365.1 (2/8/89)

Any person operating an air contaminant source or an air operating permit source may, at any time, be required to monitor the ambient air, process emissions or conduct emission tests as deemed necessary by the Control Officer under the following provisions:

The Board or Control Officer may require any person operating any source to conduct a monitoring program on site or adjacent off site for emissions, ambient air concentrations or any other pertinent special studies deemed necessary.

All monitoring data shall be submitted in a form which the Board or Control Officer may require. Averaging time and collection periods will be determined by the Control Officer. Failure to record and/or report data as specified in the “Guidelines for Industrial Monitoring Equipment and Data Handling” may be cause for a Notice of Violation to be issued.

All data and records shall be kept for a period of at least one year and made available to the Control Officer upon request.

All required continuous emission monitors or required opacity monitors used to monitor compliance and all instruments used for special studies must meet appropriate EPA performance specifications (40 CFR 60, Appendix B) and shall be calibrated and maintained in accordance with the “Guidelines for Industrial Monitoring Equipment and Data Handling” procedures approved by the Control Officer.

The Control Officer may take such samples and make any tests and investigations deemed necessary to determine the accuracy of the monitoring reports and tests submitted to the

NWCAA, and evaluate the validity of the data. The owner or operator may also be required by the Control Officer to take a sample using an approved procedure and submit the results thereof within a reasonable period of time.

The Board or the Control Officer may require additional reasonable monitoring be undertaken at any appropriate time to insure compliance with the NWCAA Regulation.

2.1.10.2. State Only: NWCAA 367 and Appendix A (7/14/05)

All ambient air monitors shall be operated and maintained as required by the appropriate Sections of 40 CFR Parts 50 and 58.

A Quality Assurance (QA) manual and station log book shall be kept for all stations. Written calibration and precision/span check procedures shall be included in the QA manual. A station audit shall be conducted by the NWCAA at least once per year.

Unless subject to acid rain regulations (40 CFR Part 72 and 75), all continuous emissions monitoring systems (CEMS) shall be capable of meeting appropriate EPA performance specifications using procedures outlined in 40 CFR Part 60 Appendix B. CEMS subject to acid rain regulations shall be capable of meeting the specifications outlined in the appropriate section of 40 CFR Part 75.

All CEMS shall be operated in accordance with the appropriate section of 40 CFR Part 60 Appendix F, and the operator shall assess the operation of each CEMS daily.

Continuous opacity monitors shall be maintained according to “Recommended Quality Assurance Procedures for Opacity Continuous Monitoring Systems” (EPA 340/1-86-10) and the manufacturer’s procedures. All gaseous CEMS shall be maintained using the QA criteria of 40 CFR Part 60 Appendix F and the manufacturer’s procedures.

Auditing of opacity monitors shall be conducted according to recommended procedures. Data accuracy assessments shall be conducted at least once every calendar quarter for gaseous monitors and at appropriate periodic intervals. Relative Accuracy Test Audits (RATAs), Relative Accuracy Audits (RAAs) and Cylinder Gas Audits (CGAs) shall be employed as described in 40 CFR Part 60 (or 40 CFR Part 75 if the facility is subject to acid rain regulations).

Strip charts and approved data acquisition systems shall be used to capture and store data. All data must be retained for a period of at least five years and be available to the NWCAA upon request.

CEMS are required to maintain greater than 90% data availability on a monthly basis. A supplemental report shall be submitted if during any calendar month a CEMS fails to produce 90% data availability stating the reasons for the low data availability.

2.1.11. Credible Evidence

40 CFR 51.212(c) (2/24/97), 40 CFR 52.12 (2/24/97), and 40 CFR 52.33 (2/24/97)

For the purpose of compliance certifications or establishing whether or not a person has violated or is in violation of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

2.2. Permit Terms

2.2.1. Permit Expiration and Renewal

WAC 173-401-610 (11/4/93) and WAC 173-401-710 (10/17/02)

This permit is issued for a fixed term of five years from date of issuance. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted. A complete permit renewal application shall be submitted to the NWCAA no later than the date established in the permit.

2.2.2. Permit Actions

WAC 173-401-620(2)(c) (11/4/93)

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

2.2.3. Emissions Trading

WAC 173-401-620(2)(g) (11/4/93)

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in this permit.

2.2.4. Emission Reduction Credits

State Only: WAC 173-400-131, -136 (4/1/11)

An emission reduction credit may be issued and used in accordance with the applicable regulations listed above.

2.2.5. Severability

WAC 173-401-620(2)(h) (11/4/93)

If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.

2.2.6. Permit Appeals

WAC 173-401-620(2)(i) (11/4/93) and WAC 173-401-735 (5/3/97)

This permit or any conditions in it may be appealed only by filing an appeal with the pollution control hearings board and serving it on the NWCAA within thirty days of receipt. This provision for appeal is separate from and in addition to any federal rights to petition and review under section 505(b) of the FCAA.

2.2.7. Permit Continuation

WAC 173-401-620(2)(j) (11/4/93)

This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. If a timely and complete application has been submitted, an application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied.

2.2.8. Reopening for Cause

WAC 173-401-730 (11/4/93)

The permit shall be reopened and revised under any of the following circumstances:

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

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

(iii) The NWCAA or the EPA Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

(iv) The NWCAA or the EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

2.2.9. Changes not Requiring Permit Revisions/Off-Permit Changes

WAC 173-401-722 (10/17/02) and WAC 173-401-724 (11/4/93)

The permittee may make the changes described in WAC 173-401-722 and WAC 173-401-724 without revising this permit, provided that the changes satisfy the criteria set forth in those sections.

2.2.10. Permit Modifications

WAC 173-401-720 (11/4/93) and WAC 173-401-725 (11/4/93)

This permit may be revised as provided in WAC 173-401-720 (administrative permit amendments) and 173-401-725 (permit modifications).

2.2.11. Property Rights

WAC 173-401-620(2)(d) (11/4/93)

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

2.2.12. Definitions

2.2.12.1. NWCAA 200 (10/13/94)

Particular references to terms not otherwise defined in this permit or the associated Statement of Basis have the meaning assigned to them in the specific regulation being cited. The terms NWCAA, Ecology, and EPA shall mean the Northwest Clean Air Agency, the Washington State Department of Ecology, and the United States Environmental Protection Agency, respectively. FCAA means the Federal Clean Air Act.

2.2.12.2. State Only: NWCAA 200 (11/17/11)

In the new version of the NWCAA Regulation some of the definitions have been modified slightly to provide clarification and some have been revised to include an expanded definition of the term.

2.2.13. Compliance Schedule

WAC 173-401-630(3) (11/4/93) and WAC 173-401-510(2)(h)(iii) (6/17/94)

The permittee shall continue to comply with all applicable requirements with which the source was in compliance as of the date of permit issuance. The permittee shall meet on a timely basis any applicable requirements that become effective during the permit term.

2.2.14. Permit Fees

2.2.14.1. WAC 173-401-620(2)(f) (11/4/93)

The permittee shall pay fees as a condition of this permit in accordance with the NWCAA fee schedule.

2.2.14.2. State Only: NWCAA 322.4 (11/17/11)

The NWCAA shall assess and collect annual air operating permit fees for sources in its jurisdiction that are required to have Title V Air Operating Permits (excluding sources regulated by WDOE directly). The total fees required to administer the program shall be determined by a workload analysis conducted by NWCAA staff and approved annually by the NWCAA Board of Directors.

2.2.15. Transfer or Permanent Shutdown

2.2.15.1. NWCAA 325 (2/14/73)

Approval to construct a stationary source is not to be transferable from one location to another (outside the plant boundary), from one piece of equipment to another, or from one person to another, except portable sources may retain the same registration so long as they remain within the jurisdiction of the NWCAA.

2.2.15.2. State Only: NWCAA 325 (11/8/07)

Approval to construct a stationary source is not to be transferable from one location to another (outside the plant boundary), from one piece of equipment to another, or from one person to another, except portable sources may retain the same registration so long as they remain within the jurisdiction of the NWCAA and they comply with NWCAA 300 and 301.

The registered owner or operator shall report the transfer of ownership or permanent shutdown of a registered source to the NWCAA within ninety (90) days of shutdown or transfer. The new owner of a registered source shall file a written report with the NWCAA within ninety (90) days of completing transfer of ownership and/or assuming operational control.

In the case of a permanent shutdown, process and pollution control equipment may remain in place and on site, but shall be rendered incapable of generating emissions to the atmosphere.

2.3. Permit Shield

2.3.1. Shield Requirement

WAC 173-401-640(1) (11/4/93)

Compliance with a permit condition shall be deemed compliance with the applicable requirements upon which that condition is based, as of the date of permit issuance. The permit shield does not apply to any insignificant emissions unit or activity so designated under WAC 173-401-530.

2.3.2. Inapplicable Requirements

WAC 173-401-640(2) (11/4/93)

As of the date of permit issuance, the requirements listed in the Inapplicable Requirements section of this permit do not apply to the permittee. The permit shield applies to all requirements so identified.

2.3.3. Exclusions

WAC 173-401-640(4) (11/4/93)

Nothing in this section or in this permit shall alter or affect the following:

(i) Provisions of Section 303 of the FCAA (emergency orders), including the authority of the EPA Administrator under that section;

(ii) Liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(iii) Ability of EPA to obtain information from a source pursuant to Section 114 of the FCAA; or

(iv) Ability of the permitting authority to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in RCW 70.94.154.

2.3.4. Reasonably Available Control Technology

2.3.4.1. WAC 173-401-605(3) (11/4/93)

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

2.3.4.2. WAC 173-400-040 (9/20/93)

All emissions units are required to use RACT which may be determined for some sources or source categories to be more stringent than the applicable emission limitations of any chapter of Title 173 WAC. Where current controls are determined to be less than RACT, Ecology or the NWCAA shall, as provided in section 8, chapter 252, Laws of 1993, define RACT for each source or source category and issue a rule or regulatory order requiring the installation of RACT.

2.3.4.3. State Only: WAC 173-400-040(1) (4/1/11)

All emissions units are required to use RACT which may be determined for some sources or source categories to be more stringent than the applicable emission limitations of any chapter of Title 173 WAC. Where current controls are determined to be less than RACT, the permitting authority shall, as provided in RCW 70.94.154, define RACT for each source or source category and issue a rule or regulatory order requiring the installation of RACT.

2.3.5. Emergencies

WAC 173-401-645 (11/4/93)

An emergency, as defined in WAC 173-401-645(1), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if conditions of WAC 173-401-645 (3) and (4) are met. This provision is in addition to the affirmative defense for unavoidable excess emissions found in any applicable requirement.

The permittee shall submit a notice of emergency to the NWCAA within two working days of the time when the emission limitation was exceeded due to an emergency or shorter periods of time specified in an applicable requirement.

2.4. Recordkeeping and Reporting

2.4.1. Compliance Certification

2.4.1.1. WAC 173-401-630(5) (11/4/93)

The permittee shall submit ongoing certifications of compliance with permit terms and conditions. The first such certification shall cover the period from the last compliance certification until issuance of this permit. The following compliance certification shall cover the period from permit issuance to the end of the calendar year. Subsequent compliance certifications shall be made on a yearly basis. Each certification shall include:

(i) Identification of each term and condition of the permit that is the basis of the certification;

(ii) Compliance status;

(iii) Whether the compliance was continuous or intermittent;

(iv) Methods used for determining the compliance status of the source, currently and over the reporting period. These methods must be consistent with the permit Monitoring, Recordkeeping, and Reporting requirements.

All compliance certifications shall be submitted to EPA Region 10 and the Northwest Clean Air Agency at the following addresses by February 28 for the previous calendar year:

U.S. EPA, Region 10
Office of Air, Waste, and Toxics
Attn: Air Operating Permits
1200 Sixth Avenue, Suite 900, AWT-107
Seattle, WA 98101

Northwest Clean Air Agency
Attn: Air Operating Permits
1600 South Second Street
Mount Vernon, WA 98273-5202

2.4.1.2. WAC 173-401-520 (11/4/93)

Any application form, report or compliance certification that is submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

2.4.1.3. WAC 173-401-615 (10/17/02) and -630 (11/4/93)
Directly enforceable under WAC 173-401-615(1)(b) & (c) (10/17/02)

All required monitoring reports must be certified by a responsible official consistent with WAC 173-401-520. Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification need only to be submitted once every six months, covering all required reporting since the date of the last certification, provided that the certification specifically identifies all documents subject to the certification.

All semiannual monitoring certifications are due as follows:

- January 31 for reports from July through December
- July 31 for reports from January through June

2.4.1.4. WAC 173-401-530(2)(d) (10/17/02)

Where a permit does not require testing, monitoring, recordkeeping and reporting for insignificant emissions units or activities, the permittee may certify continuous compliance if there were no observed, documented, or known instances of noncompliance of an insignificant emission unit during the reporting period. Where an underlying OAC requires testing,

monitoring, recordkeeping and reporting for insignificant emission units or activities, the permittee may certify continuous compliance when the testing, monitoring and recordkeeping required by the permit revealed no violations during the period, and there were no observed, documented or known instances of noncompliance during the reporting period.

2.4.2. False and Misleading Oral Statement: Unlawful Reproduction or Alteration of Documents

2.4.2.1. NWCAA 112 (2/14/73)

No person shall willfully make a false or misleading oral statement to the Board as to any matter within the jurisdiction of the Board.

No person shall reproduce or alter or cause to be reproduced or altered any order or other paper issued by the Agency if the purpose of such reproduction or alteration is to evade or violate any provision or Regulation of this Agency, or any other law.

2.4.2.2. State Only: NWCAA 112 (11/12/99)

No person shall willfully make a false or misleading oral statement to the NWCAA Board, Control Officer, or their duly authorized representatives as to any matter within the jurisdiction of the Board.

No person shall reproduce or alter or cause to be reproduced or altered any order or other paper issued by the NWCAA if the purpose of such reproduction or alteration is to evade or violate any provision or Regulation of the NWCAA, or any other law.

2.4.3. Required Recordkeeping

2.4.3.1. WAC 173-401-615(2) (10/17/02)

Records of required monitoring information shall include, where applicable, the following:

(i) Date, time, and location of sampling or measurements;

(ii) Operating conditions existing at the time of sampling or measurement; and

(iii) If analyses were performed, the date, company or entity performing the analyses, the analytical techniques or methods used, and the results of such analyses.

A record shall be kept describing changes made that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

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

2.4.3.2. WAC 173-401-615 (10/17/02) and -630 (11/4/93)
Directly enforceable under WAC 173-401-615(1)(b) & (c) (10/17/02)

Monitoring and associated recordkeeping are not required when an emission unit is not operating and there are no emissions to the atmosphere unless such monitoring is specifically required by the NWCAA. The facility must record the time periods that a unit is shut down and not monitored, and include the time periods and a summary of why the emission unit was shut down in the periodic report of monitoring required by WAC 173-401-615(3)(a).

2.4.4. Pollutant Disclosure - Reporting by Air Contaminant Sources

2.4.4.1. NWCAA 150 (9/8/93) and WAC 173-400-105(1) (9/20/93)

The permittee shall file annually at a time determined by the NWCAA and on forms furnished by the NWCAA a report setting forth:

(i) The nature of the enterprise;

(ii) A list of process materials which are potentially significant sources of emissions used in, and incidental to, its manufacturing processes, including any by-products and waste products;

(iii) An estimated annual total production of wastes discharged into the air in units and contaminants designated by the NWCAA that may include stack and fugitive emissions of particulate matter, PM_{10}, sulfur dioxide, carbon monoxide, total reduced sulfur compounds (TRS), fluorides, lead, VOCs, and other contaminants.

Annual emission reports shall be submitted to the NWCAA within 105 days after the end of the previous calendar year. If the emission report is not submitted by the required date and the emissions are used to determine operating permit fees as described in NWCAA 324.126 then potential to emit will be used to determine said fees.

The permittee shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards.

2.4.4.2. State Only: WAC 173-400-105(1) (4/1/11)

In addition to the requirements of 2.4.4.1, the permittee shall report $PM_{2.5}$, oxides of nitrogen, and ammonia on forms available from the NWCAA or Ecology. Emission estimates may be based on the most recent published EPA emission factors or other information available to the source, whichever is the better estimate.

2.4.4.3. State Only: NWCAA 150 (11/8/07)

Annual emission reports shall be submitted to the NWCAA no later than April 15 of the following calendar year. If the emission report is not submitted by the required date and the emissions are used to determine operating permit fees as described in NWCAA Regulation 322.4, then potential to emit may be used to determine said fees.

2.4.5. Greenhouse Gas (GHG) Reporting

2.4.5.1. State Only: WAC 173-441-030(1), (2), (4), and (5) (1/1/11)

GHG reporting is mandatory for:

(i) An owner or operator of any facility listed in WAC 173-441-120 that emits ten thousand metric tons CO2e or more per calendar year in total GHG emissions as calculated according to WAC 173-441-030(1)(b).

(ii) Any supplier that supplies applicable fuels that are reported to DOL as sold in Washington state of which the complete combustion or oxidation would result in total calendar year emissions of ten thousand metric tons or more of carbon dioxide as calculated according to WAC 173-441-030(2)(b).

A person may choose to voluntarily report to Ecology GHG emissions that are not required to be reported under WAC 173-441-030(1) or (2). Persons voluntarily reporting GHG emissions must use the methods established in WAC 173-441-120(3) and 173-441-130 to calculate any voluntarily reported GHG emissions.

Once a facility or supplier is subject to the requirements of this chapter, the person must continue for each year thereafter to comply with all requirements of this chapter, including the

requirement to submit annual GHG reports, even if the facility or supplier does not meet the applicability requirements in WAC 173-441-030(1) or (2) of this section in a future year, except as provided in WAC 173-441-030(5)(a)-(c).

2.4.5.2. State Only: WAC 173-441-050 (1/1/11)

Follow the procedures for emission calculation, monitoring, quality assurance, missing data, recordkeeping, and reporting that are specified in each relevant section of WAC 173-441.

Beginning calendar year 2012 for existing facilities or suppliers, the annual GHG report shall contain the information required per WAC 173-441-050(3) and (4) and be submitted to Ecology no later than:

(i) March 31st of each calendar year for GHG emissions in the previous calendar year if the facility is required to report GHG emissions to the U.S. EPA per 40 CFR 98.

(ii) October 31st of each calendar year for GHG emissions in the previous calendar year if the facility is not required to report GHG emissions to the U.S. EPA per 40 C.F.R. Part 98.

For any facility or supplier that becomes subject to this rule because of a physical or operational change that is made after January 1, 2012, report emissions for the first calendar year in which the change occurs according to WAC 173-441-050(2)(b)(iii)(A) through (C).

Retain all required records for at least three years in a form that is suitable for expeditious inspection and review, including a GHG monitoring plan per WAC 173-441-050(6)(e).

Note: Under WAC 173-401-615(2), records of required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application.

2.4.5.3. State Only: WAC 173-441-060 and -070 (1/1/11)

Each such submission shall be signed by a representative designated in accordance with WAC 173-441-060 and 40 CFR 3.10 as adopted on October 13, 2005 and shall include the following certification statement signed by the designated representative or any alternate designated representative:

> "I am authorized to make this submission on behalf of the owners and operators of the facility or supplier, as applicable, for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.".

Each GHG report and certificate of representation for a facility or supplier must be submitted electronically in accordance with the requirements of WAC 173-441-050 and 173-441-060 and in a format specified by Ecology.

2.4.5.4. State Only: WAC 173-441-100 (1/1/11)

All requests, notifications, and communications to Ecology pursuant to this chapter, other than submittal of the annual GHG report, shall be submitted to the following address:

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

2.4.6. Reporting to Verify Emissions from Potential PSD Sources

State Only: WAC 173-400-720(4)(b)(iii) (4/1/11)

The owner or operator shall monitor the emissions of any regulated pollutants from all projects for which PSD applicability was determined according to the provisions of 40 CFR 52.21(b)(41)(ii)(a) through (c), and calculate and maintain a record of annual emissions on a calendar year basis.

The owner or operator shall submit a report to NWCAA within 60 days after the end of the year during which records must be generated under paragraph 40 CFR 52.21 (r)(6)(iii) setting out the unit's annual emissions, as monitored pursuant to 40 CFR 52.21 (r)(6)(iii), during the calendar year that preceded submission of the report. The report shall include the emissions in tons per year for the project, the baseline actual emissions and the pre-construction projected emissions.

2.4.7. Reporting of Deviations from Permit Conditions

WAC 173-401-615(3)(b) (10/17/02)
Directly enforceable under WAC 173-401-615(1)(b) & (c) (10/17/02)

Prompt Reporting of Deviations: The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in this permit. The report shall include a description of the probable cause of such deviations, if known, and any corrective actions or preventive measures taken. Prompt means reporting according to the shortest time period listed below which applies to the situation:

(i) In the case where the deviation represents a potential threat to human health or safety “prompt” means as soon as possible, but in no case later than twelve hours after the deviation is discovered. A follow up report on the deviation shall be included in the next monthly report.

(ii) For all other deviations, the deviation shall be reported as part of the next routine monitoring report, but no later than 30 days after the end of the month during which the deviation is discovered, whichever is sooner.

2.4.8. Report of Breakdown and Upset

2.4.8.1. NWCAA 340.1, 340.2 and 340.3 (10/13/94)

If a breakdown or upset condition occurs which results in or may have resulted in an emission and/or ambient air quality standard being exceeded, the owner or operator of the source shall take the following actions:

(i) The upset or breakdown shall be reported as promptly as possible and in no event later than twelve (12) hours to the NWCAA.

(ii) The person responsible shall, upon the request of the Control Officer, submit a full report within ten (10) days including the known causes, corrective measures taken, and preventive measures to be taken to minimize or eliminate a recurrence.

Compliance with the requirements of this section does not relieve the owner or operator of the source from the responsibility to maintain continuous compliance with all the requirements of the NWCAA Regulation nor from the resulting liabilities for failure to comply.

It shall be prima facie evidence of violation of the NWCAA Regulation if any control equipment or other equipment creating emissions to the atmosphere is turned off, broken down or otherwise inoperative, and a notice of breakdown has not been filed under NWCAA 340.1.

2.4.8.2. State Only: NWCAA 340.1, 340.2 and 340.3 (11/8/07)

If a breakdown or upset condition occurs which results in or may have resulted in an exceedance of an emission and/or ambient air quality standard, the owner or operator of the source shall take the following actions:

(i) The upset or breakdown shall be reported as promptly as possible and in no event later than twelve (12) hours to the NWCAA.

(ii) The responsible official or his designee shall submit a full report on forms provided by the NWCAA within 30 days after the end of a calendar month in which the upset occurred and must include as a minimum the known causes, corrective action taken, preventive measures put in place to reduce the possibility of or eliminate a recurrence, and an estimate of the quantity of emissions above the applicable limit caused by the event.

In addition to the reporting requirements of the 10/13/94 version of NWCAA 340, the permittee must also report to the NWCAA if the emission release to the air requires agency notification as specified in 40 CFR 302 (CERCLA) or 40 CFR 355 (SARA).

It shall be prima facie evidence of violation of the NWCAA Regulation if any other equipment creates new or increased emissions to the atmosphere as the result of being turned off, broken down or otherwise inoperative, and a notice of breakdown has not been filed under NWCAA 340.1.

2.4.9. Report of Shutdown or Startup

2.4.9.1. NWCAA 341 (9/8/93)

If the permittee schedules a total or partial shutdown or startup of control or process equipment which may result in emissions or any additional emissions to the atmosphere which may temporarily exceed the emission standards of this Regulation, the permittee shall notify the NWCAA prior to the shutdown or startup.

Prompt notification shall be made and in no event less than 24 hours before the scheduled shutdown or startup. The permittee shall submit a general schedule of steps to be taken to minimize the release of air contaminants to the atmosphere including the reasons for and duration of the proposed shutdown or startup, the nature of the action to be taken, the date and time for the action and an estimate of the anticipated rate and concentration of emission.

Compliance with the requirements of this section does not relieve the owner or operator of the source from the responsibility to maintain continuous compliance with the requirements of this Regulation nor from the resulting liabilities for failure to comply.

2.4.9.2. State Only: NWCAA 341 (7/14/05)

If the permittee schedules a total or partial shutdown or startup of control or process equipment that the source reasonably believes would result in emissions which may temporarily exceed an emission standard of this Regulation, the operator or owner of the source shall notify the NWCAA in advance of the shutdown or startup.

The advanced notification shall include a general schedule of steps to be taken to minimize the release of air contaminants to the atmosphere including the reasons for and duration of the proposed shutdown or startup, the nature of the action to be taken, the date and time for the action and an estimate of the anticipated rate and concentration of emission.

Compliance with the requirements of this section does not relieve the owner or operator of the source from the responsibility to maintain continuous compliance with the requirements of this Regulation nor from the resulting liabilities for failure to comply.

Excess emissions due to shutdown or startup shall be considered unavoidable, and not subject to penalty, provided the stationary source adequately demonstrates that the excess emissions could not have been prevented through careful planning and design, the emissions did not result in a violation of an ambient air quality standard and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

The responsible official or their designee shall submit a full report no later than 30 days after the end of the calendar month in which the shutdown or startup occurred that resulted in an exceedance of an ambient or emission standard of this Regulation. The report shall be submitted on forms provided by the NWCAA and must include, at minimum, the known causes, corrective action taken, preventive measures put in place to reduce the possibility of or eliminate a recurrence, and an estimate of the quantity of emissions above the applicable limit caused by the event.

2.4.10. Operation and Maintenance

2.4.10.1. NWCAA 342 (9/8/93)

Keep all process and/or air pollution control equipment in good operating condition and repair. If a breakdown or upset condition occurs and is determined by the Control Officer to be due to poor operating and maintenance procedures, the Control Officer may take any legal steps necessary to prevent a recurrence of the breakdown or upset condition.

Operation and maintenance instructions and schedules for process and/or control equipment must be available and may be required to be posted on the site. This section is specifically applicable to the operation of equipment where untrained personnel may operate or otherwise have access to or use the equipment.

If a breakdown or violation occurs and is due to the improper operation or maintenance of equipment, the owner or operator of the source will, in addition to filing a report of breakdown under NWCAA 340, submit a report if requested by the Control Officer on what measures will be taken in training or re-orienting personnel to prevent a recurrence of the breakdown.

2.4.10.2. State Only: NWCAA 342 (7/14/05)

All air contaminant stationary sources are required to keep any process and/or air pollution control equipment in good operating condition and repair.

Operating instructions and maintenance schedules for process and/or control equipment must be available on site.

2.5. Excess Emissions

2.5.1. Excess Emission

WAC 173-400-107 (9/20/93)

The permittee shall have the burden of proving to Ecology or the NWCAA or the decision-making authority in an enforcement action that excess emissions were unavoidable. Excess emissions determined to be unavoidable under the procedures and criteria of this section shall be excused and not subject to penalty.

Excess emissions which represent a potential threat to human health or safety or which the owner or operator of the source believes to be unavoidable shall be reported to the NWCAA as soon as possible. Other excess emissions shall be reported within thirty days after the end of the month during which the event occurred or as part of the routine emission monitoring reports. Upon request by Ecology or the NWCAA, the permittee shall submit a full written report

including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

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

Excess emissions due to scheduled maintenance shall be considered unavoidable provided the source reports as required and adequately demonstrates that the excess emissions could not have been prevented through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.

Excess emissions due to upsets shall be considered unavoidable provided the source reports as required and adequately demonstrates that:

(i) The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

(ii) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(iii) The permittee took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded.

2.5.2. Excess Emissions Due to Breakdowns, Upsets, Startup, or Shutdown

State Only: NWCAA 340.4 (11/8/07) and 341.4 (7/14/05)

Excess emissions due to breakdowns and upsets shall be considered unavoidable, and not subject to penalty, provided the stationary source adequately demonstrates that:

(i) The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

(ii) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;

(iii) The operator took immediate and appropriate corrective action in a manner consistent with good air pollution control practice; and

(iv) The emissions did not result in a violation of an ambient air quality standard.

Excess emissions due to shutdown or startup shall be considered unavoidable, and not subject to penalty, provided the stationary source adequately demonstrates that the excess emissions could not have been prevented through careful planning and design, the emissions did not result in a violation of an ambient air quality standard and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

2.6. Duty to Supplement or Correct Information

WAC 173-401-500(6) (10/17/02)

Upon becoming aware that the source failed to submit any relevant facts in a permit application or that information submitted in a permit application is incorrect, the source shall promptly submit such supplementary facts or corrected information.

2.7. Prohibitions

2.7.1. Concealment and Masking

2.7.1.1. WAC 173-400-040(7) (9/20/93) and State Only: WAC 173-400-040(8) (4/1/11)

No person shall cause or permit the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

2.7.1.2. State Only: NWCAA 540 (1/8/69)

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

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

2.7.2. Adjustment for Atmospheric Conditions

WAC 173-400-205 (3/22/91)

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

2.7.3. Outdoor Burning

2.7.3.1. WAC 173-425-036 (10/18/90) and WAC 173-425-045 (1/3/89), WAC 173-435-050(2) (01/3/89) Although SIP-Approved, WAC 173-425-036, –045, and -055 (referenced below) have been repealed.

No person shall conduct outdoor burning during an air pollution episode or a declared period of impaired air quality. Except as provided in WAC 173-425-055, the following materials shall not be burned in any open fire: (1) garbage, (2) dead animals, (3) asphaltic products, (4) waste petroleum products, (5) paints, (6) rubber products, (7) plastics, (8) treated wood, and (9) any substance, other than natural vegetation, which normally emits dense smoke or obnoxious odors.

2.7.3.2. State Only: WAC 173-425-040, 050, and 060 (4/13/00), NWCAA 502 (11/8/07)

No person shall conduct outdoor burning except in accordance with the applicable regulations listed above. Outdoor burning shall be conducted under a valid fire permit and shall not contain prohibited materials, unless specifically exempted. Emissions from burning shall not create a nuisance and/or interfere with visibility on any public road.

2.7.4. Asbestos

2.7.4.1. State Only: NWCAA 570 (11/8/07)

The permittee shall conduct all renovation or demolition projects in accordance with the applicable asbestos control standards listed in NWCAA 570.

2.7.4.2. 40 CFR 61.145 (1/16/91), 61.148 (11/20/90) and 61.150 (9/18/03)

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

2.7.5. Stratospheric Ozone and Climate Protection

2.7.5.1. 40 CFR 82 Subpart F (4/30/09)

The permittee shall comply with the standards for recycling and emissions reduction in accordance with the requirements listed in 40 CFR 82 Subpart F.

2.7.5.2. State Only: RCW 70.94.970 (1991 c 199 §602)

A person who services, repairs or disposes of a motor vehicle air conditioning system; commercial or industrial air conditioning, heating, or refrigeration system; or consumer appliance shall use refrigerant extraction equipment to recover regulated refrigerant that would otherwise be released into the atmosphere. This subsection does not apply to off-road commercial equipment.

The willful release of regulated refrigerant from a source listed in this section is prohibited.

2.7.6. Display of Orders, Certificates and Other Notices: Removal or Mutilation Prohibited

NWCAA 124 (2/14/73)

Any order or other certificate obtained from the NWCAA shall be available at the facility. If the NWCAA requires a notice to be displayed, it shall be posted. No one shall mutilate, obstruct or remove any notice unless authorized to do so by the NWCAA.

2.7.7. Obstruction of Access

State Only: RCW 70.94.200, (1987 c 109 §38)

The permittee shall not obstruct, hamper or interfere with any authorized representative of the NWCAA who requests entry for the purposes of inspection and who presents appropriate credential; nor shall any person obstruct, hamper, or interfere with any such inspection.

2.7.8. False Statement, Representation or Certification

State Only: WAC 173-400-105(7) (4/1/11)

No person shall make any false material statement, representation or certification in any form, notice or report required under Chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

2.7.9. Inaccurate Monitoring

State Only: WAC 173-400-105(9) (4/1/11)

No person shall render inaccurate any monitoring device or method required under Chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

2.7.10. Prevention of Accidental Release

40 CFR 68 (4/9/04)

This stationary source, as defined in 40 CFR Section 68.3, is subject to Part 68, the accidental release prevention regulations. This stationary source shall submit a risk management plan (RMP) by the date specified in section 68.10. This stationary source shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR Part 70.

2.7.11. Cutback Asphalt Paving

NWCAA 580.7 (4/14/93)

The application of cutback asphalt in paving during the months of June, July, August and September is limited to use as prime coatings and patch mixes, or when the temperature is less than 50°F.

2.7.12. Creditable Stack Height and Dispersion Techniques

WAC 173-400-200 (3/22/91) (State Only - 2/10/05)

For stacks for which construction or reconstruction commenced, or for which major modifications were carried out, after December 31, 1970, no source may use dispersion techniques or excess stack height to meet ambient air quality standards or PSD increment limitations.

2.8. Notice of Construction and Application for Approval/New Source Review

2.8.1. Minor New Source Review (NSR)

2.8.1.1. WAC 173-400-110 (9/20/93), NWCAA 300, 301, 302 & 324.2 (10/13/94), and NWCAA 303 (8/9/78)

No person shall construct, install, establish, modify or alter an air contaminant source or an emission unit without filing a “Notice of Construction and Application for Approval” and receiving approval from the NWCAA in accordance with the cited regulations.

2.8.1.2. State Only: WAC 173-400-111, 113 (4/1/11), WAC 173-460-010 through -150 (6/20/09), NWCAA 300.1-300.12 (11/17/11), NWCAA 301 (11/17/11), 303 (11/12/98), and 324.2 (11/8/07)

A Notice of Construction application must be filed by the owner or operator and an Order of Approval issued by the NWCAA prior to the establishment of any new source in accordance with the cited regulations. For purposes of this section “establishment” shall mean to “begin actual construction” as that phrase is defined in NWCAA 200, and “new source” shall include any “modification” to an existing “stationary source” as those terms are defined in NWCAA 200.

2.8.2. Nonroad Engines

State Only: WAC 173-400-035 (4/1/11)

This section applies to nonroad engines, as defined in WAC 173-400-030, with a cumulative maximum rated brake horsepower greater than 500 BHP. Nonroad engines are not subject to new source review, control technology determinations, or emission limits set by the state implementation plan.

Nonroad engines must use ultra-low sulfur diesel or ultra-low sulfur bio-diesel, gasoline, natural gas, propane, liquefied petroleum gas, hydrogen, ethanol, methanol, or liquefied/compressed natural gas.

Before operations begin, the owner or operator of a nonroad engine must notify the NWCAA of intent to operate in accordance with the cited regulations. The owner or operator of any nonroad engine with a cumulative maximum rated brake horsepower greater than 2000 BHP must obtain written approval to operate from the NWCAA prior to operation. The owner or operator of any engine covered by this regulation must record and maintain information as required by the cited regulations. The NWCAA may set specific conditions for operation as necessary to ensure that the nonroad engines do not cause or contribute to a violation of National Ambient Air Quality Standards.

2.8.3. General Order

State Only: WAC 173-400-560 (4/1/11) and NWCAA 300.14 (11/17/11)

An owner or operator may apply for an applicable general order for approval to construct certain specified sources as defined in WAC 173-400-560. A general order of approval shall identify criteria by which an emission unit or source may qualify for coverage under a general order of approval and shall include terms and conditions for installing and/or operating the source.

2.8.4. Requirements to Comply

State Only: NWCAA 300.15 (11/17/11)

It shall be unlawful for an owner or operator of a source or emission unit to not abide by the operating and reporting conditions in the Order of Approval.

2.8.5. Prevention of Significant Deterioration (PSD)

State Only: WAC 173-400-700, -720, -730, -750 (4/1/11), WAC 173-400-710 (6/8/07), WAC 173-400-117, -740 (2/10/05)

A Prevention of Significant Deterioration (PSD) permit application must be filed by the owner or operator and a PSD permit issued by Ecology prior to the establishment of any new source in accordance with the cited regulations. No major stationary source or major modification as defined in the cited regulation shall begin actual construction without having received a PSD permit. Allowable emissions from the proposed major stationary source or major modification shall not cause or contribute to a violation of any ambient air quality standard.

An applicant for a PSD permit must submit an application that provides complete information for Department of Ecology to determine compliance with all PSD program requirements. Detailed procedures for submitting a complete application, for public review and involvement, and for revisions to an existing PSD permit are provided in the cited regulations (WAC 173-400-700 through 750).

2.8.6. Replacement or Substantial Alteration of Control Technology at an Existing Source

State Only: WAC 173-400-114 (9/15/01), NWCAA 300.13 (11/17/11)

Any person proposing to replace or substantially alter emission control technology installed on an existing stationary source or emission unit shall file a Notice of Construction application with the NWCAA.

2.9. Greenhouse Gas Regulation

WAC 173-401-200 (19) & (35) (9/10/11)

Greenhouse gases (GHGs), the air pollutant defined in 40 CFR 86.1818-12(a) as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation unless, as of July 1,

2011, the GHG emissions are at a stationary source emitting or having the potential to emit 100,000 tpy CO_2 equivalent emissions.

The term "tpy (tons per year) CO_2 equivalent emissions" (CO_2e) shall represent an amount of GHGs emitted, and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of 40 CFR part 98 - Global Warming Potentials, and summing the resultant value for each to compute a tpy CO_2e. For purposes of this subsection, prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of nonfossilized and biodegradable organic material originating from plants, animals, or microorganisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the nonfossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of nonfossilized and biodegradable organic material).

"Subject to regulation" means, for any air pollutant, that the pollutant is subject to either a provision in the FCAA, or a nationally applicable regulation codified by EPA in subchapter C of 40 CFR chapter 1 (in effect on October 6, 2010), that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity.

SECTION 3 STANDARD TERMS AND CONDITIONS FOR NSPS AND NESHAP

Standard terms and conditions are administrative and/or other requirements that typically have no ongoing compliance monitoring requirements. The permittee must comply with the requirements listed below for specific "affected facilities" as defined in the New Source Performance Standards (NSPS) in 40 CFR Part 60.2, "affected sources" defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR Part 63.2, and owners or operators of any stationary source for which a standard is prescribed under 40 CFR Part 61. The affected facilities, affected sources, and stationary sources subject to these requirements are identified in Section 5 of the permit. The conditions in this section do not apply generally to all emission units at the facility.

The EPA delegates NSPS and NESHAP implementation and enforcement authority to NWCAA on a periodic basis. Some conditions in this section cite the NSPS delegation letter or the NESHAP delegation letter from EPA Region 10 to NWCAA because the letter clarifies certain Federal requirements. For example, the delegation letters state that NWCAA shall be the recipient of all notifications and reports and be the point of contact for questions and compliance issues regarding delegated standards. The delegation letters also specify the extent of NSPS and NESHAP delegation to the NWCAA. Current delegation letters are available for review on the NWCAA website and at the NWCAA office.

Some of the terms and conditions cited below refer to the "Administrator". For delegated NSPS and NESHAP requirements, "Administrator" means NWCAA; for NSPS and NESHAP requirements that have not been delegated to NWCAA, "Administrator" means the Administrator of the United States Environmental Protection Agency.

3.1. Part 60 – New Source Performance Standard Requirements

3.1.1. Address for Reports, Notifications, and Submittals

Title 40 CFR 60.4(a) and (b) (4/25/75) (as amended by Delegation Letter dated 12/02/10 from Richard Albright, Director of the Office of Air, Waste, and Toxics, EPA Region 10 to Mark Asmundson, Director of NWCAA), NWCAA 104.2 (8/9/12)

Notifications, reports, and applications for delegated New Source Performance Standards (NSPS) shall be sent to the NWCAA at the following address:

Northwest Clean Air Agency
1600 S. Second Street
Mount Vernon, WA 98273-5202

Notifications, reports, and applications under NSPS authorities that have been excluded from delegation shall be submitted to the EPA at the following address:

U.S. EPA, Region 10
Office of Air, Waste, and Toxics
1200 Sixth Avenue, Suite 900, AWT-107
Seattle WA 98101

3.1.2. Notification

Title 40 CFR 60.7(a) (2/12/99) (as amended by Delegation Letter dated 12/02/10 from Richard Albright, Director of the Office of Air, Waste, and

Toxics, EPA Region 10 to Mark Asmundson, Director of NWCAA), NWCAA 104.2 (8/9/12)

Furnish written notification to the Administrator of the following:

(i) The date construction (or reconstruction as defined by 40 CFR 60.15) of an affected facility commenced postmarked no later than 30 days after such date.

(ii) Notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

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

(v) Notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of this part. The notification shall be postmarked not less than 30 days prior to such date.

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

3.1.3. Startup, Shutdown, and Malfunction Records

Title 40 CFR 60.7(b) (2/12/99), NWCAA 104.2 (8/9/12)

Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

3.1.4. Excess Emission Records

Title 40 CFR 60.7(c) and (d) (2/12/99) (as amended by Delegation Letter dated 12/02/10 from Richard Albright, Director of the Office of Air, Waste, and Toxics, EPA Region 10 to Mark Asmundson, Director of NWCAA), NWCAA 104.2 (8/9/12)

Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (as defined in applicable subparts) and/or summary report form (see 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required in any subpart; or the Administrator determines that more frequent reporting is necessary. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the information in 40 CFR 60.7(c) (1) through (4).

3.1.5. Maintenance of Records

Title 40 CFR 60.7(f) (2/12/99), NWCAA 104.2 (8/9/12)

Maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as described in 60.7(f)(1) through (3).

Note: Under WAC 173-401-615(2), records of required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application.

3.1.6. Performance Tests

Title 40 CFR 60.8(a), (d), (e), and (f) (9/13/10), NWCAA 104.2 (8/9/12)

Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s), except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section.

The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

The owner or operator of an affected facility shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

3.1.7. Test Method Performance Audit

Title 40 CFR 60.8(g) (9/13/10), NWCAA 104.2 (8/9/12)

Performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Audit samples must be collected by the sampling system during the compliance test just as the

compliance samples are collected. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A–3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A–4 of Part 60, Method 18 of Appendix A–6 of Part 60, Methods 20, 22, and 25A of Appendix A–7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary.

If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, http://www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method.

The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

3.1.8. Compliance with Opacity Standards

Title 40 CFR 60.11(b) and (c) (10/17/00), NWCAA 104.2 (8/9/12)

Compliance with opacity standards in 40 CFR Part 60 shall be determined by EPA Method 9 in Appendix A. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test. The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

3.1.9. Operation and Maintenance

Title 40 CFR 60.11(d) (10/17/00), NWCAA 104.2 (8/9/12)

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

3.1.10. Credible Evidence

Title 40 CFR 60.11(g) (10/17/00), NWCAA 104.2 (8/9/12)

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a

source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

3.1.11. Circumvention

Title 40 CFR 60.12 (3/8/74), NWCAA 104.2 (8/9/12)

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

3.1.12. Monitoring Requirements

Title 40 CFR 60.13 (6/13/07), NWCAA 104.2 (8/9/12)

All continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to part 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to part 60, unless otherwise specified in an applicable subpart or by the Administrator.

The owner or operator of an affected facility shall conduct a performance evaluation of the continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part, or at such other times as may be required by the Administrator under section 114 of the Act. The owner or operator of an affected facility shall furnish the Administrator within 60 days of completion a written report of the results of the performance evaluation.

Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.

Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under this section, all continuous monitoring systems for measuring emissions, except opacity, shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

Owners or operators of continuous monitoring systems for pollutants other than opacity shall reduce all data to 1-hour averages for time periods as defined in §60.2.

For continuous monitoring systems other than opacity, 1-hour averages shall be computed according to 40 CFR 60.13 paragraphs (h)(2)(i) through (h)(2)(ix), except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations.

3.1.13. Modification

Title 40 CFR 60.14 (10/17/00), NWCAA 104.2 (8/9/12)

Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere

of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

3.1.14. Recordkeeping and Reporting for 40 CFR Part 60 Subpart Kb

Title 40 CFR 60.115b (4/8/87) and 60.116b(a) (10/15/03), NWCAA 104.2 (8/9/12)

Copies of all records required under Subpart Kb shall be kept for at least two years, except for records required to be kept under 60.116b(b), which must be kept for the life of the source.

Note: Under WAC 173-401-615(2), records of required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application.

3.1.15. Compliance During Startup, Shutdown, and Malfunction for 40 CFR Part 60 Subpart QQQ

Title 40 CFR 60.692-1 (11/23/88), NWCAA 104.2 (8/9/12)

Each owner or operator subject to the provisions of Subpart QQQ shall comply with the requirements of 60.692-1 to 60.692-5 except during periods of startup, shutdown, or malfunction.

3.1.16. Recordkeeping for Stormwater Systems Excluded from 40 CFR Part 60 Subpart QQQ

Title 40 CFR 60.697(h) (10/17/00), NWCAA 104.2 (8/9/12)

For stormwater sewer systems subject to the exclusion in 60.692-1(d)(1), an owner or operator shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that no wastewater from any process units or equipment is directly discharged to the stormwater sewer system.

3.1.17. Recordkeeping for Ancillary Equipment Excluded from 40 CFR Part 60 Subpart QQQ

Title 40 CFR 60.697(i) (10/17/00), NWCAA 104.2 (8/9/12)

For ancillary equipment subject to the exclusion in 60.692-1(d)(2), an owner or operator shall keep for the life of the facility in a readily accessible location, plans or specifications that demonstrate that the ancillary equipment does not come in contact with or store oily wastewater.

3.1.18. Recordkeeping for Non-Contact Cooling Water Systems Excluded from 40 CFR Part 60 Subpart QQQ

Title 40 CFR 60.697(j) (10/17/00), NWCAA 104.2 (8/9/12)

For non-contact cooling water systems subject to the exclusion in 60.692-1(d)(3), an owner or operator shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that the cooling water does not contact hydrocarbons or oily wastewater and is not recirculated through a cooling tower.

3.2. Part 61 – National Emission Standard for Hazardous Air Pollutant Requirements

3.2.1. Address for Reports, Notifications and Submittals

Title 40 CFR 61.04 (4/25/75) (as amended by Delegation Letter dated 11/29/10 from Richard Albright, Director of the Office of Air, Waste, and Toxics, EPA Region 10 to Mark Asmundson, Director of NWCAA), NWCAA 104.2 (8/9/12).

Notifications, reports, and applications for delegated Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAPs) shall be sent to the NWCAA at the following address:

Northwest Clean Air Agency
1600 South Second Street
Mount Vernon, WA 98273-5202

Notifications, reports, and applications under NESHAP authorities that have been excluded from delegation shall be submitted to the EPA at the following address:

Director, Office of Air, Waste, and Toxics
U.S. EPA Region 10
1200 Sixth Avenue
Seattle WA 98101

3.2.2. Requirements for Existing, Newly Constructed, and Reconstructed Sources

Title 40 CFR Part 61.05(a) (11/7/85), 61.07 (11/7/85), and 61.10(a) and (c) (3/16/94), NWCAA 104.2 (8/9/12)

After the effective date of a Part 61 standard, no owner or operator shall construct or modify any stationary source subject to that standard without obtaining written approval from the Administrator in accordance with Part 61 Subpart A, except under an exemption granted by the President under Section 112(c)(2) of the Act. Sources, the construction or modification of which commenced after the publication date of the standards proposed to be applicable to the sources, are subject to this prohibition.

The owner or operator shall submit to the Administrator an application for approval of the construction of any new source or modification of any existing source. The application shall be submitted before the construction or modification is planned to commence, or within 30 days after the effective date if the construction or modification had commenced before the effective date and initial startup has not occurred. A separate application shall be submitted for each stationary source. Each application for approval of construction shall include:

(i) The name and address of the applicant;

(ii) The location or proposed location of the source; and

(iii) Technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including a description of any equipment to be used for control of emissions. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

Each application for approval of modification shall include, in addition to the information required in paragraph (b) of this section:

(i) The precise nature of the proposed changes;

(ii) The productive capacity of the source before and after the changes are completed; and

(iii) Calculations of estimates of emissions before and after the changes are completed, in sufficient detail to permit assessment of the validity of the calculations.

The owner or operator of each existing source or each new source which had an initial startup before the effective date of a relevant standard shall provide the following information in writing to the Administrator within 90 days after the effective date:

The name and address of the owner or operator;

(i) The location of the source;

(ii) The type of hazardous pollutants emitted by the stationary source;

(iii) A brief description of the nature, size, design, and method of operation of the stationary source including the operating design capacity of the source. Identify each point of emissions for each hazardous pollutant.

(iv) The average weight per month of the hazardous materials being processed by the source, over the last 12 months preceding the date of the report.

(v) A description of the existing control equipment for each emission point including – (i) each control device for each hazardous pollutant; and (ii) estimated control efficiency (percent) for each control device.

(vi) A statement by the owner or operator of the source as to whether the source can comply with the standards within 90 days after the effective date.

Any change in the information provided under paragraph (a) of this section or 61.07(b) shall be provided to the Administrator within 30 days after the change. However, if any change will result from modification of the source, 61.07(c) and 61.08 apply.

3.2.3. Prohibited Activities and Circumvention

Title 40 CFR 61.05(b), (c) and (d) (11/7/85), NWCAA 104.2 (8/9/12)

After the effective date of any standard, no owner or operator shall operate a new stationary source subject to that standard in violation of the standard except under an exemption granted by the President under Section 112(c)(2) of the Act.

Ninety days after the effective date of any standard, no owner or operator shall operate any existing source subject to that standard in violation of the standard, except under a waiver granted by the Administrator under this part or under an exemption granted by the President under Section 112(c)(2) of the Act.

No owner or operator subject to the provisions of Part 61 shall fail to report, revise reports, or report source test results as required under this part.

3.2.4. Application for Approval of Construction or Modification

Title 40 CFR 61.07 (11/7/85), NWCAA 104.2 (8/9/12)

The owner or operator shall submit to the Administrator an application for approval of the construction of any new source according to (b) of this section or modification of any existing source according to (c) of this section. The application shall be submitted before the construction or modification is planned to commence, or within 30 days after the effective date if the construction or modification had commenced before the effective date and initial startup has not occurred. A separate application shall be submitted for each stationary source.

3.2.5. Notification of Startup

Title 40 CFR 61.09(a) (11/7/85), NWCAA 104.2 (8/9/12)

The owner or operator shall provide the Administrator with written notification of the anticipated date of initial startup of the source not more than 60 days or less than 30 days before that date, and, the actual date of initial startup of the source within 15 days after that date.

3.2.6. Operation and Maintenance

Title 40 CFR 61.12(c) (2/24/97), NWCAA 104.2 (8/9/12)

The owner or operator of each stationary source shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the source.

3.2.7. Credible Evidence

Title 40 CFR 61.12(e) (2/24/97), NWCAA 104.2 (8/9/12)

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

3.2.8. Recordkeeping Requirements

Title 40 CFR 61.13(g) (9/13/10), and 61.356 (11/12/02), NWCAA 104.2 (8/9/12)

The owner or operator of a source subject to Part 61 shall retain at the source and make available, upon request, for inspection by the Administrator, for a minimum of 2 years, records of emission test results and other data needed to determine emissions.

Each owner or operator complying with the recordkeeping requirements of 61.356 shall maintain records in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

Note: Under WAC 173-401-615(2), records of required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application.

3.2.9. Monitoring Requirements

Title 40 CFR 61.14 (11/7/85), NWCAA 104.2 (8/9/12)

Unless otherwise specified, this section applies to each monitoring system required under each subpart which requires monitoring.

Each owner or operator shall maintain and operate each monitoring system as specified in the applicable subpart and in a manner consistent with good air pollution control practice for minimizing emissions. Any unavoidable breakdown or malfunction of the monitoring system should be repaired or adjusted as soon as practicable after its occurrence.

When required by the applicable subpart, and at any other time the Administrator may require, the owner or operator of a source being monitored shall conduct a performance evaluation of

the monitoring system and furnish the Administrator with a copy of a written report of the results within 60 days of the evaluation. Such a performance evaluation shall be conducted according to the applicable specifications and procedures described in the applicable subpart. The owner or operator of the source shall furnish the Administrator with written notification of the date of the performance evaluation at least 30 days before the evaluation is to begin.

Monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average.

The owner or operator shall maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. These records shall be maintained at the source for a minimum of 2 years and made available, upon request, for inspection by the Administrator.

Note: Under WAC 173-401-615(2), records of required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application.

3.2.10. Modification

Title 40 CFR 61.15 (11/7/85), NWCAA 104.2 (8/9/12)

Except as provided under paragraph (d) of this section, any physical or operational change to a stationary source which results in an increase in the rate of emission to the atmosphere of a hazardous pollutant to which a standard applies shall be considered a modification. Upon modification, an existing source shall become a new source for each hazardous pollutant for which the rate of emission to the atmosphere increases and to which a standard applies.

3.2.11. Circumvention

Title 40 CFR 61.19 (11/7/85), NWCAA 104.2 (8/9/12)

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

3.3. Part 63 – National Emission Standard for Hazardous Air Pollutant Requirements

3.3.1. Prohibited Activities and Circumvention

Title 40 CFR 63.4 (4/5/02), NWCAA 104.2 (8/9/12)

No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance is not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under Section 112(i)(4) of the Act.

No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to –

(i) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(ii) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.

Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

3.3.2. Requirements for Existing, Newly Constructed, and Reconstructed 40 CFR Part 63 NESHAPs Sources

Title 40 CFR Part 63.5(b)(1), (3), (4), (6) (4/5/02), NWCAA 104.2 (8/9/12)

A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures in paragraphs (d) and (e) of this Part 63.5, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the applicable procedures in 63.9(b).

After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

3.3.3. Operation and Maintenance

Title 40 CFR 63.6(e)(1)(i),(ii), and (iii) (4/20/06), NWCAA 104.2 (8/9/12) (Except 40 CFR Part 63 Subpart DDDDD)

(i) At all times, including periods of startup, shutdown, and malfunction, owners or operators must operate and maintain any affected source, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest

extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

3.3.3.1. Operations and Maintenance for sources subject to Subpart DDDDD, 40 CFR 63.7500(a)(3) (1/31/13)

(i) At all times, any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, shall be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

3.3.3.2. Startup, Shutdown, and Malfunction Plan; SSM Plans for Part 63 NESHAP Sources Except 40 CFR Part 63 Subpart DDDDD; Title 40 CFR 63.6(e)(3) (4/20/06), NWCAA 104.2 (8/9/12)

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. This plan shall be developed by the source's compliance date for the relevant standard.

(ii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or

shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5).

(iii) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(iv) The owner or operator must maintain at the affected source a current SSMP and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the SSMP is subsequently revised, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the SSMP, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a SSMP the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator.

(v) To satisfy the requirements of this section to develop a SSMP, the owner or operator may use the affected source’s standard operating procedures (SOP) manual, or an Occupational Safety and Health Administrations (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vi) Based on the results of a determination made under paragraph 63.6(e)(1)(i) of this 40 CFR 63 Subpart, the Administrator may require than an owner or operator of an affected source make changes to the SSMP for that source. The Administrator may require reasonable revisions to a SSMP if the Administrator finds that the plan:

A. Does not address a startup, shutdown, or malfunction event that has occurred;

B. Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;

C. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

D. Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in 40 CFR 63.2.

(vii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the

permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

3.3.3.3. SSM Plans for 40 CFR Part 63 Subpart CC (Refinery MACT)-Affected Sources
Title 40 CFR Part 63.6(e)(3) (4/20/06), Table 6 from Appendix to Subpart CC (6/30/10), NWCAA 104.2 (8/9/12)

The requirements for startup, shutdown and malfunction plans for Subpart CC-affected sources are the same as noted in Subsection 3.3.3.2 above with the following exceptions:

The startup, shutdown, or malfunction plan does not apply to Group 2 emission points that are not part of an emissions averaging group.

The reports specified in §63.6(e)(3)(iv) do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.

3.3.3.4. SSM Plans for 40 CFR Part 63 Subpart UUU (Refinery MACT II)-Affected Sources
Title 40 CFR Part 63.6(e)(3) (4/20/06), Table 44 from Appendix to Subpart UUU (4/20/06), NWCAA 104.2 (8/9/12)

The requirements for startup, shutdown and malfunction plans for Subpart UUU-affected sources are the same as noted in Subsection 3.3.3.2 above with the following exceptions:

Reports of actions not consistent with the plan are not required within 2 and 7 days of action but rather must be included in next periodic report.

The owner or operator is only required to keep the latest version of the SSM plan.

3.3.3.5. Affirmative Defense for Violations for 40 CFR Part 63 Subpart DDDDD (Boiler MACT) Affected Sources 40 CFR 63.7601 (1/31/13), NWCAA 104.2 (3/14/13)

The owner or operator of an affected source may assert an affirmative defense to the claim for civil penalties for violations of standards caused by malfunctions, as defined in §63.2. To assert an affirmative defense, the owner or operator must submit a report to the Administrator consistent with the requirements of 40 CFR 63.7501.

3.3.4. Extension of Compliance for Early Reductions and Other Reductions

Title 40 CFR 63.6(i) (4/20/06) and 63.9(c) (5/30/03), NWCAA 104.2 (8/9/12)

Until a compliance extension has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with this part's applicable requirements. A compliance extension may be possible if a request for extension of compliance meets 63.6(i)(3) through 63.6(i)(6).

3.3.5. Conduct of Performance Tests

Title 40 CFR 63.7 (9/13/10), 63.9(e) (5/30/03), NWCAA 104.2 (8/9/12)

If required to do performance testing by a relevant standard, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source. The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under section 63.7(c) of this section and to have an observer present during the test.

Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under §63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

Unless otherwise specified in a relevant standard or test method, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard.

3.3.6. Operation and Maintenance of Continuous Monitoring Systems (CMS)

40 CFR 63.8(c)(1),(2),(3),(4) and (6) (4/20/06), NWCAA 104.2 (8/9/12)

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in §63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in §63.6(e)(3).

(2)(i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under §63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(6) The owner or operator of a CMS which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified.

3.3.7. Continuous Monitoring Systems (CMS) Out of Control Periods

40 CFR 63.8(c)(7) and (8) (4/20/06), NWCAA 104.2 (8/9/12)

(7)(i) A CMS is out of control if—

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in §63.10(e)(3).

3.3.8. Continuous Monitoring Systems (CMS) Quality Control Program

40 CFR 63.8(d) & (e) (4/20/06), 63.9(g)(1) (5/30/03), NWCAA 104.2 (8/9/12)

The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall

conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under §63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under §63.7 in accordance with the applicable performance specification as specified in the relevant standard. If a performance test is not required, or the requirement for a performance test has been waived under §63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in §63.7(a), or as otherwise specified in the relevant standard.

The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under §63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard.

3.3.9. Continuous Monitoring Systems (CMS) Data Reduction

40 CFR 63.8(g) (4/20/06), NWCAA 104.2 (8/9/12)

The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2.

The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of §63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

3.3.10. Address for Reports, Notifications and Submittals

Title 40 CFR 63.9(a) (5/30/03), 63.9(h)(3) (5/30/03), 63.10(a) (4/20/06), 63.12(c) (3/16/94), 63.13 (11/12/10), (as amended by Delegation Letter dated 11/29/10 from Richard Albright, Director of the Office of Air, Waste, and Toxics, EPA Region 10 to Mark Asmundson, Director of NWCAA), NWCAA 104.2 (8/9/12)

Notifications, reports, and applications for delegated Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) shall be sent to the NWCAA at the following address:

Northwest Clean Air Agency
1600 South Second Street
Mount Vernon, WA 98273-5202

Notifications, reports, and applications under NESHAP authorities that have been excluded from delegation shall be submitted to the EPA at the following address:

Director, Office of Air, Waste, and Toxics U.S. EPA Region 10
1200 Sixth Avenue
Seattle WA 98101

All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

3.3.11. Notification

3.3.11.1. Notification Requirements for New or Reconstructed Part 63 NESHAP Sources; Title 40 CFR Part 63.9(b)(4) (5/30/03), 40 CFR 63.7545(a), NWCAA 104.2 (8/9/12)

The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in 63.5(d)(1)(i); and

(ii) A notification of the actual date of startup of the source delivered or postmarked within 15 calendar days after that date.

3.3.11.2. Notification Requirements for Existing Part 63 NESHAP Sources Except 40 CFR Part 63 Subpart CC (Refinery MACT) Affected Sources; Title 40 CFR 63.9 (b)(2) and (j) (5/30/03), 40 CFR 63.7545(a), NWCAA 104.2 (8/9/12)

The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard) shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement that is the basis of notification and the source's compliance date;

(iv) A brief description of the nature and size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and the types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

Any change in the information provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

3.3.11.1. Notification of Compliance Status for 40 CFR Part 63 Subpart DDDDD (Boiler MACT) Affected Sources; 40 CFR 63.7545(e) (5/30/03), 40 CFR 63.7530(d)-(f) (1/31/13)

An initial NCS shall be submitted by close of business on the 60th day after completion of the initial compliance demostration. The initial NCS shall include all applicable elements described in 40 CFR 63.7630(e)(1)-(8).

3.3.12. Recordkeeping

Title 40 CFR 63.10(b)(1) and (3) (4/20/06), NWCAA 104.2 (8/9/12)

The owner or operator of an affected source shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years

of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

3.3.13. Startup, Shutdown, and Malfunction Recordkeeping and Reports

3.3.13.1. SSM Recordkeeping and Reports for Part 63 NESHAP Sources; Title 40 CFR 63.10(b)(2) and (d)(5) (4/20/06), NWCAA 104.2 (8/9/12)

The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

(i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;

(ii) The occurrence and duration of each malfunction of operation (i.e. , process equipment) or the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)); or

(v) (B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));

(vi) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in

such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a “checklist,” or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vii) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(viii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(ix) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(x) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(xi) All CMS calibration checks;

(xii) All adjustments and maintenance performed on CMS;

(xiii) All documentation supporting initial notifications and notifications of compliance status under §63.9.

If actions taken by an owner or operator during a startup, shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source’s startup, shutdown, and malfunction plan (SSMP), the owner or operator shall state such information in a SSMP report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be

summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period.

Any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's SSMP, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or a facsimile transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSMP, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i).

3.3.13.2. SSM Reports for 40 CFR Part 63 Subpart CC (Refinery MACT)-Affected Sources; Title 40 CFR 63.10(b)(2) and (d)(5) (4/20/06), 63.655(h)(1) and Table 6 to 40 CFR 63 Subpart CC (6/30/10), NWCAA 104.2 (8/9/12)

The requirements for startup, shutdown and malfunction reports for Subpart CC-affected sources are the same as noted in Subsection 3.3.13.1 above with the following exceptions:

(i) Under Subsection 63.10(b)(2) - Maintenance of Relevant Records, provisions listed under 63.10(b)(2)(iii), (vii), (xi), and (xiii) do not apply.

(ii) Under Subsection 63.10(d)(5) - Startup, Shutdown, and Malfunction Reports, provisions listed under 63.10(d)(5)(i) apply except that periodic SSM reports may be submitted at the same time as periodic reports specified in 63.655(g).

(iii) Provisions listed under 63.10(d)(5)(ii) apply except that actions taken during a startup, shutdown or malfunction that are not consistent with the SSM plan do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.

3.3.13.3. SSM Reports for 40 CFR Part 63 Subpart UUU (Refinery MACT II)-Affected Sources; Title 40 CFR 63.1575(h) and 63.1577 (4/11/02), NWCAA 104.2 (8/9/12)

The requirements for startup, shutdown and malfunction reports for Subpart UUU-affected sources are the same as noted in Subsection 3.3.13.1 above with the following exceptions:

(i) When actions taken to respond during startups, shutdowns and malfunctions are consistent with the SSM plan, it is not required to report these events in the semiannual compliance report and the reporting requirements in §§63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(ii) When actions taken to respond during startups, shutdowns and malfunctions are not consistent with the SSM plan, it is required to report these events and the response taken in the semiannual compliance report. In this case, the reporting timeframe requirements in §§63.6(e)(3)(iv) and 63.10(d)(5) do not apply (the events shall be

reported in the next semiannual report instead of reporting verbally within 2 working days and in writing within 7 working days).

3.3.14. Recordkeeping Requirements for Sources with Continuous Monitoring Systems

Title 40 CFR 63.10(c) (4/20/06), NWCAA 104.2 (8/9/12)

In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of:

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)–(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under §63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in §63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

3.3.15. Additional 40 CFR Part 63 Subpart CC (Refinery MACT) Process Units Added or Process Changes Not Meeting Construction or Reconstruction Definition

Title 40 CFR 63.640(l) and (m) (10/28/09), NWCAA 104.2 (8/9/12)

If an additional petroleum refining process unit or a process change is made that is subject to 63.640(l), the added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

If a process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup.

If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point, the owner or operator shall be in compliance upon initial startup unless they demonstrate to the Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall follow the procedures as noted below to establish a compliance date:

(i) The owner or operator shall submit a compliance schedule along with a justification for the schedule;

(ii) The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the NWCAA; and

(iii) The Administrator shall approve or deny the compliance schedule or request within 120 calendar days of receipt of the compliance schedule and justification.

The emission points are subject to the Notification of Compliance Status Report as required by 63.655 (f), Periodic Reports as required by 63.655 (g) and (h), and other reports as required by 40 CFR 63.640(l)(3)(i) through (vii) and Subpart A of Part 63. Pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems added to an existing source are subject to the equipment leak standards for existing sources in §63.648 but a notification of compliance status report is not required for such added equipment as provided by 40 CFR 63.640(l)(4).

3.3.16. Recordkeeping Requirements for 40 CFR Part 63 Subpart CC (Refinery MACT) Equipment

Title 40 CFR Part 63.642(e) (10/28/09), NWCAA 104.2 (8/9/12)

Each owner or operator of a source subject to 40 CFR 63 Subpart CC shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this subpart. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

SECTION 4 GENERALLY APPLICABLE REQUIREMENTS

The cited requirements in the "Citation" column and incorporated herein by reference are applicable plantwide at the source, including insignificant emission units. These requirements are federally enforceable unless identified as "state only". A requirement designated "state only" is enforceable only by the state or the NWCAA, and not by the EPA or through citizen suits. The "Description" column is a brief description of the applicable requirements for informational purposes only and is not enforceable. Periodic or continuous monitoring requirements (including testing) are specified in the "Monitoring, Recordkeeping and Reporting" column, which identifies monitoring, recordkeeping and reporting (MR&R) obligations the source must perform as required by WAC 173-401-605(1) and 615(1) and (2), or the underlying requirement. MR&R obligations do not apply to insignificant emission units.

The requirements in the MR&R column listed below the "*Directly Enforceable*" label are legally enforceable requirements added under the NWCAA's "gap-filling" authority [WAC 172-401-615(1)(b) & (c), (10/17/02]. Other requirements not labeled "*Directly Enforceable*" or above the "*Directly Enforceable*" label are brief descriptions of the regulatory requirements for information purposes, and are not enforceable. Unless the text of the MR&R column is specifically identified to be directly enforceable, the language of the cited regulation takes precedence over a paraphrased requirement.

The provisions of federally approved NWCAA 365, 366 and the "Guidelines for Industrial Monitoring Equipment and Data Handling" have been replaced in this section by NWCAA 367 and Appendix A – "Ambient Monitoring, Emission Testing, and Continuous Emission and Opacity Monitoring". NWCAA 367 and Appendix A were adopted on July 14, 2005 with a provision that applicable sources would be allowed one year from the date of adoption to achieve compliance with Appendix A. The new regulations are "State Only" until incorporated into the State Implementation Plan. NWCAA 367 and Appendix A are not materially different from the previous rule and guideline, but have been updated to include current monitoring technology and methods.

Table 4-1 Generally Applicable Requirements

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.1 General	WAC 173-401-615(3) (9/16/02)	<u>Reports</u> Submit reports of any required monitoring to the NWCAA at least once every six months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with WAC 173-401-520.	Unless specifically required otherwise by a permit term, monthly reports shall cover a calendar month, quarterly reports shall cover a calendar quarter, six-month reports shall cover January through June and July through December, and annual reports shall cover a calendar year. The reports shall be submitted within 30 days (or 60 days for VOC and 40 CFR 63 Subpart CC reports) after the close of the period that the reports cover.

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.2 Odor	WAC 173-400-040(5) (4/1/11 State only)	Odors Off-site nuisance odors prohibited.	*Directly Enforceable* Upon receiving an odor complaint BP shall investigate the complaint and the operations of the refinery to determine whether (a) refinery emissions of odorous air contaminants are detrimental to the health, safety and welfare of any person, or causing damage to property of business and (b) the refinery is using recognized best practices and control equipment to reduce these odors to a reasonable minimum. If BP determines that emissions from the refinery caused or are causing a nuisance condition, or that odor control measures in are inadequate, and if the identified problems cannot be repaired or corrected within four hours, action shall be taken to minimize odors until repairs can be made and the NWCAA shall be notified within 12 hours with a description of the complaint and action being taken to resolve the problem. The results of the investigation, identification of any malfunctioning equipment or aberrant operation, and the date and time of repair or mitigation shall be recorded. A log of these records shall be maintained for inspection. Receipt of a nuisance complaint in itself shall not necessarily be a violation.
4.3 Odor	NWCAA 535 (3/09/00) State only)	Odor Control Measures Appropriate practices and control equipment shall be installed and operated to reduce odor-bearing gasses emitted into the atmosphere to a reasonable minimum. Any person who shall cause the generation of any odor from any source which may unreasonably interfere with any other property owner's use and enjoyment of their property must use recognized best practices and control equipment to reduce these odors to a reasonable minimum. No person shall cause or permit the emission of any odorous air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.4 Nuisance	NWCAA 530 (3/09/00 State only)	General Nuisance No person shall discharge from any source quantities of air contaminants, with the exception of odors, in sufficient amounts and of such characteristics and duration as is likely to be injurious or cause damage to human health, plant or animal life, or property; or which unreasonably interferes with enjoyment of life and property. An air contaminant is defined as "dust, fumes, mist, smoke, other particulate matter, vapor gas, odorous substance, or any combination thereof. Receipt of a nuisance complaint in itself shall not necessarily be a violation.	*Directly Enforceable* Upon receiving an air contaminant complaint from the NWCAA or the public addressing conditions other than odors, BP shall investigate the complaint and the operations of the refinery to determine whether refinery emissions have caused or are causing injury or damage to human health, plant or animal life or property, or unreasonably interfere with enjoyment of life or property. If BP determines that emissions from the refinery caused or are causing a nuisance condition, and if the identified problems cannot be repaired or corrected within four hours, action shall be taken to minimize emissions until repairs can be made and the NWCAA shall be notified within 12 hours with a description of the complaint and action being taken to resolve the problem. The results of the investigation, identification of any malfunctioning equipment or aberrant operation, and the date and time of repair or mitigation shall be recorded. A log of these records shall be maintained for inspection.
4.5 Nuisance	WAC 173-400-040(5) (9/20/93) WAC 173-400-040(6) (9/20/93), (4/1/11 State only)	Emission Detrimental to Persons or Property Emissions detrimental to health or property prohibited. Receipt of a nuisance complaint in itself shall not necessarily be a violation.	*Directly Enforceable* Upon receiving an air contaminant complaint from the NWCAA or the public addressing conditions other than odors, BP shall investigate the complaint and the operations of the refinery to determine whether refinery emissions have caused or are causing injury or damage to human health, plant or animal life or property, or unreasonably interfere with enjoyment of life or property. If BP determines that emissions from the refinery caused or are causing a nuisance condition, and if the identified problems cannot be repaired or corrected within four hours, action shall be taken to minimize emissions until repairs can be made and the NWCAA shall be notified within 12 hours with a description of the complaint. The results of the investigation, identification of any malfunctioning equipment or aberrant operation, and the date and time of repair or mitigation shall be recorded. A log of these records shall be maintained for inspection.

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.6 VE	NWCAA 451.1 (10/13/94), (11/8/07 State only) WAC 173-400-040(1) (9/20/93) WAC 173-400-040(2) (4/1/11 State only)	Emission of Air Contaminant - Visual Standard Visual emissions shall not exceed 20% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A), except as follows: • There is valid data to show that the opacity is in excess of 20% as a result of the presence of condensed water droplets, and that the concentration of the particulate matter, as shown by a source test approved by the Control Officer, is less than 0.10 (0.23 g/m3) grain/dscf. • Excess emissions as a result of soot blowing or grate cleaning shall not occur for more than 15 minutes in any 8 hour period, or another approved schedule provided that the operator can demonstrate to the satisfaction of the Control Officer that the time limitations of this subsection are not being exceeded.	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.7 PM	NWCAA 550 (4/14/93) (7/14/05 State Only)	Preventing Particulate Matter from Becoming Airborne Reasonably Available Control Technology to prevent the release of fugitive matter to the ambient air required. Nuisance particulate fallout prohibited.	*Directly Enforceable* Upon receiving an air contaminant complaint from the NWCAA or the public addressing conditions other than odors, BP shall investigate the complaint and the operations of the refinery to determine whether refinery emissions have caused or are causing injury or damage to human health, plant or animal life or property, or unreasonably interfere with enjoyment of life or property. If BP determines that emissions from the refinery caused or are causing a nuisance condition, and if the identified problems cannot be repaired or corrected within four hours, action shall be taken to minimize emissions until repairs can be made and the NWCAA shall be notified within 12 hours with a description of the complaint. The results of the investigation, identification of any malfunctioning equipment or aberrant operation, and the date and time of repair or mitigation shall be recorded. A log of these records shall be maintained for inspection. Receipt of a complaint in itself shall not necessarily be a violation.
4.8 PM	WAC 173-400-040(2) (9/20/93) WAC 173-400-040(3) (4/1/11 State only)	Fallout Nuisance Particulate fallout prohibited.	
4.9 PM	WAC 173-400-040 (3)(a) (9/20/93) WAC 173-400-040(4)(a) (4/1/11 State only)	Fugitive Emissions for Attainment Areas Take reasonable precautions to prevent release of air contaminants required.	
4.10 PM	WAC 173-400-040 (8)(a) (9/20/93) WAC 173-400-040 (9)(a) (4/1/11 State only)	Fugitive Dust Sources Reasonable precautions to prevent release of fugitive dust required. Maintain and operate source to minimize emissions.	

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.11 PM	NWCAA 455.1 (4/14/93), (5/11/95 State only) [1]	Emission of Particulate Matter Emissions shall not exceed 0.10 grain/dscf (corrected to 7% oxygen), except, from all gaseous and distillate fuel burning equipment (the definition of fuel burning equipment does not include internal combustion engines), emissions shall not exceed 0.05 grain/dscf (0.11 g/m3) corrected to 7% oxygen.	In addition, for the following BART eligible units: Crude Heater, South Vacuum Heater, #1 Reformer Heater, Naphtha HDS Charge Heater, Naphtha HDS Stripper Reboiler, Hydrocracker 1st Stage Reactor Heater (R-1), Hydrocracker 1st Stage Fractionator Reboiler, Hydrocracker 2st Stage Reactor Heater (R-4), Hydrocracker 2st Stage Fractionator Reboiler, South Coker Charge Heater, North Coker Charge Heater, #1 DHDS Charge Heater, #1 DHDS Stabilizer Reboiler, #1 Hydrogen Plant South Reforming Furnace, #1 Hydrogen Plant North Reforming Furnace, Sulfur Recovery Complex Incinerator and #2 TGU; combust only gaseous fuels and maintain records of the type of fuel used in each unit.[2] For the above-listed BART eligible units, perform testing using 40 CFR 60 Appendix A, Method 5 (filterable) and 40 CFR 51 Appendix M Method 202 (condensable), when requested by NWCAA.[3] *Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit. Combustion units with specifically applicable permit terms in Section 5 for opacity and particulate matter shall be monitored in accordance with Section 5 requirements only.
4.12 PM	WAC 173-400-060 (3/22/91), (2/10/05 State only)	Emission Standards for General Process Units Particulate emissions greater than 0.1 grain/dscf prohibited.	
4.13 PM	WAC 173-400-050(1) and (3) (3/22/91), (4/1/11 State only)	Emission Standards for Combustion and Incineration Units Particulate emissions from combustion units greater than 0.1 grains/dscf prohibited. Measured concentrations for combustion and incineration units shall be adjusted for volumes corrected to seven percent oxygen, except when Ecology or NWCAA determines that an alternate oxygen correction factor is more representative of normal operations.	

[1] BART Order #7836 Rev. 1, Condition 1.1 (8/16/13)
[2] BART Order #7836 Rev. 1, Condition 1. 2.1 (8/16/13)
[3] BART Order #7836 Rev. 1, Condition 1.2.2 (8/16/13)

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.14 SO_2	NWCAA 410	Ambient SO_2 Unlawful for any person to cause or permit sulfur oxides to be emitted into the ambient air, calculated as sulfur dioxide, measured at an ambient air monitoring station to exceed: • 0.800 ppmv for any 5 minute average, not to be exceeded more than once per year • 0.400 ppmv for any hour average, not to be exceeded more than once per year • 0.250 ppmv for any one hour average, not to be exceeded more than twice in any 7 consecutive days • 0.100 ppmv for any one day (24 hours), not to be exceeded more than once per year. • 0.020 ppmv for any one year (annual arithmetic mean).	*Directly Enforceable* Monitor ambient air continuously and report to the NWCAA as per the requirements in NWCAA Regulations Appendix A (07/14/06).
4.15 SO_2	NWCAA 460 (8/9/78) (7/14/05 State only)	Weight/Heat Rate Standard – Emission of Sulfur Compounds Sulfur compound emissions, as sulfur dioxide, shall not exceed 1.5 lb/MMBtu of heat input per hour, on a monthly average basis for the facility	*Directly Enforceable* Report the refinery calendar monthly average SO_2 lb/MMBtu in monthly reports.

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.16 SO_2	WAC 173-400-040(6) first paragraph only (9/20/93)	SO_2 Stack Concentration Sulfur compounds calculated as sulfur dioxide and corrected to 7% O_2 emitted greater than 1,000 ppmvd average for a sixty consecutive minute period prohibited.	*Directly Enforceable* Continuously monitor and record the concentration of H_2S in refinery fuel gas, or alternatively stack SO_2, in accordance with the applicable permit terms listed in Section 5 of this permit. For flares, estimate SO_2 concentration based on representative samples and flow rates to the low and high pressure flares, unless a more accurate method is utilized such as engineering calculations or direct monitoring of the sulfur concentration of gasses routed to the flares.
4.17 SO_2	NWCAA 462 (4/14/92) (3/13/97 State only) WAC 173-400-040(7) (4/1/11 State only)	Emission of Sulfur Compounds Sulfur compounds emitted greater than 1,000 ppm (corrected to 7% O_2) averaged for a sixty consecutive minute period from any equipment prohibited. This requirement is not violated if reasonable evidence is presented that concentrations will not exceed ambient standards and the permittee shows that no practical method of reducing concentration exists.	
4.18 SO_2	NWCAA 520 (4/14/93)	Sulfur Compounds in Fuel Prohibited to burn, sell, or make available for sale for burning in fuel burning equipment within the jurisdiction of the NWCAA, fuel containing sulfur in excess of the following for a time period not to exceed 30 days in a 12-month period: • #1 distillate- 0.3 wt%; • #2 distillate-0.5 wt%; • other fuel oils-2.0 wt%; • solid fuels-2.0 wt%.	*Directly Enforceable* Retain fuel specifications and purchase records verifying that fuel sold or combusted in NWCAA's jurisdiction has a sulfur content of no more than the allowable limits. Fuel testing for sulfur content shall be conducted in accordance with ASTM D-4294 or ASTM D-2622.

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
4.19 SO_2	NWCAA 520 (5/9/96 State only)	<u>Sulfur Compounds in Fuel</u> Combusted fuel shall not contain sulfur in excess of the following: • #1 distillate- 0.3%; • #2 distillate-0.5%; • Other fuel oils-2.0%; • Solid fuels-2.0%. Does not apply to ocean-going vessels.	*Directly Enforceable* Retain fuel specifications and purchase records verifying that fuel combusted at the refinery has a sulfur content of no more than the allowable limits. Fuel testing for sulfur content shall be conducted in accordance with ASTM D-4294 or ASTM D-2622.
4.20 SO_2	BART Order 7836 Rev. 1 Condition 3.2.4 (8/16/13)	Report monthly average fuel gas H_2S	Report calendar month average H_2S in monthly emissions report for the following refinery fuel gas streams. 1. Main refinery fuel gas mix drum 2. Delayed Coker fuel gas 3. Crude & Vacuum Unit vacuum tail gas
4.21 VOC	NWCAA 580.24 (12/13/89) (2/8/96 State only)	<u>Process Turnarounds</u> Process units shall be depressurized to less than 5 psig (gauge) before venting to the atmosphere. During depressurization, VOCs shall be routed through a closed vent system to a flare or other appropriate disposal device.	*Directly Enforceable* Keep records of each process unit turnaround listing the date the unit was shutdown. Report emissions from turnarounds in the annual emissions inventory. A specific record shall be kept for any turnaround during which a vessel containing VOC was vented to the atmosphere at a pressure at or above 5 psig.
4.22 VOC	NWCAA 580.25 (2/8/96)	Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with accepted industrial practices.	Maintain appropriate records.
4.23 HAP	40 CFR 63 Subpart GGGGG 63.7881(c) and 63.7884(b) (11/29/06)	<u>Site Remediation Activities</u> Follow only *the recordkeeping requirements* provided that the facility-wide total quantity of the HAP (listed in Table 1 to this subpart) contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediations conducted at the facility must emit less than 1 megagram (Mg) of HAP annually.	For the 1 Mg exemption: Prepare and maintain at the facility written documentation to support determinations that the total HAP quantity in remediation materials for the year is less than 1 Mg. The documentation must include a description of methodology and data used for determining the total HAP content of the remediation material.

SECTION 5 SPECIFICALLY APPLICABLE REQUIREMENTS

The requirements in the "Citation" column and incorporated herein by reference are applicable to the emission units identified in the preceding table headers. These requirements are federally enforceable unless identified as "state only". A requirement designated "state only" is enforceable only by the state or the NWCAA, and not by the EPA or through citizen suits. The "Description" column is a brief description of the applicable requirements for informational purposes only and is not enforceable. Periodic or continuous monitoring requirements (including testing) are specified in the "Monitoring, Recordkeeping and Reporting" column, which identifies monitoring, recordkeeping and reporting (MR&R) obligations the source must perform as required by WAC 173-401-605(1) and 615(1) and (2) or the underlying requirement. MR&R obligations do not apply to insignificant emission units.

The requirements in the MR&R column listed below the "*Directly Enforceable*" label are legally enforceable requirements added under the NWCAA's "gap-filling" authority [WAC 172-401-615(1)(b) & (c), (10/17/02]. Other requirements not labeled "*Directly Enforceable*" or above the "*Directly Enforceable*" label are brief descriptions of the regulatory requirements for information purposes, and are not enforceable. Unless the text of the MR&R column is specifically identified to be directly enforceable, the language of the cited regulation takes precedence over a paraphrased requirement.

The provisions of federally approved NWCAA 365, 366 and the "Guidelines for Industrial Monitoring Equipment and Data Handling" have been replaced in this section by NWCAA 367 and Appendix A – "Ambient Monitoring, Emission Testing, and Continuous Emission and Opacity Monitoring". NWCAA 367 and Appendix A were adopted on July 14, 2005 with a provision that applicable sources would be allowed one year from the date of adoption to achieve compliance with Appendix A. The new regulations are "State Only" until incorporated into the State Implementation Plan.

Section 5 is separated into the following refinery process and product handling areas:

5.1	Crude and Vacuum Unit	5.10	Hydrogen Plant
5.2	Reformer and Naphtha Units	5.11	Calciners and Coke Handling
5.3	Hydrocracker Unit	5.12	Boilers and Cooling Towers
5.4	Delayed Coker Unit	5.13	Flares and Flare Gas Recovery
5.5	#1 Diesel HDS Unit	5.14	Sulfur Recovery Complex
5.6	#2 Diesel HDS Unit	5.15	Shipping, Pumping and Receiving
5.7	#3 Diesel HDS Unit	5.16	Non-Hazardous Landfarm
5.8	Isomerization Unit	5.17	Oily Wastewater Collection, Storage and Treatment
5.9	Light Ends and LPG Units	5.18	Petroleum Storage Tanks/Vessels

5.1. Crude and Vacuum Unit

Table 5-1 Crude and Vacuum Unit

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Crude Heater (10-1401)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.1.1 General	OAC 1054, Condition 1 (4/12/12)	The Crude Heater shall combust gaseous fuel or a combination of gaseous and liquid fuel where the percentage of liquid fuel combusted in the heater does not exceed 75% by weight. Fuel combusted in each heater shall not exceed 2.0% by weight sulfur.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.1.2 PM & SO_2	OAC 211c Conditions 1(a) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.1.3 SO_2	NWCAA ACO 05 (10/25/12)[4] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the fuel gas from the main mix drum shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas from the main mix drum in accordance with 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15 *Directly Enforceable* Report monthly the highest 3-hour rolling average ppmvd H_2S in the refinery fuel gas from the main mix drum.

[4] BART Order #7836 Rev. 1, Condition 3.2, 6.2 and 6.3 (8/16/13)

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.1.4 SO_2	NWCAA ACO 05 (10/25/12)[5] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the Vacuum Tail Gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the vacuum tail gas in accordance with 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.1.5 SO_2	OAC 689b Conditions 1.3.1, 2.3.1 and 3.3.1 (9/18/12)	The H_2S concentration of the Vacuum Tail Gas shall be reduced by 80% by amine scrubbing prior to combustion in the Crude Heater, or any other combustion device. Compliance with the 80% reduction requirement shall be demonstrated by meeting compliance with the 162 H_2S ppmvd, 3-hour rolling average fuel gas limit of 40 CFR 60 Subpart J.	Comply with permit term 5.1.4
5.1.6 SO_2	OAC 814b, Condition 4 (7/9/12)	Vacuum Tail Gas shall not exceed 500 ppmv H_2S based on a 3-hour rolling average prior to combustion in any device. Vacuum Tail Gas means vacuum tower and vacuum diesel fractionator tail gases generated at the Crude and Vacuum Unit.	Operate a CEMS to continuously monitor H_2S in the Vacuum Tail Gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.1.7 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	–Comply with Section 6.5.

[5] BART Order #7836 Rev. 1, Condition 3.2, 6.2 and 6.3 (8/16/13)

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
South Vacuum Heater (10-1451)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.1.8 General	OAC 1054, Condition 1 (4/12/12)	The South Vacuum Heater shall combust gaseous fuel or a combination of gaseous and liquid fuel where the percentage of liquid fuel combusted in the heater does not exceed 75% by weight. Fuel combusted in each heater shall not exceed 2.0% by weight sulfur.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.1.9 General	OAC 902a Condition 1 (11/01/05)	Fuel combusted in the heater shall be limited to natural gas and refinery fuel gas.	
5.1.10 General	OAC 902a Condition 5 (11/01/05)	Operating and maintenance (O&M) manual for the ultra-low NOx burners (ULNB)	Keep an O&M manual for the ULNB on-site.
5.1.11 VE	OAC 902a Condition 2 (11/01/05)	Visual emissions shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A)	Conduct MR&R in accordance with Permit Term 6.1.
5.1.12 PM & SO_2	OAC 211c Conditions 1(b) and 2 (9/18/12)	<u>Cumulative Particulate and SO_2 limit</u> The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.1.13 SO_2	NWCAA ACO 05 (10/25/12)[6] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15

[6] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.1.14 NOx	OAC 902a Condition 3 (11/01/05) [7]	NOx emissions from the South Vacuum Heater shall not exceed; • 10.5 lb/hr, calendar day average	Operate CEMS to continuously monitor NOx & O_2 concentrations in the South Vacuum Heater stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Keep records showing the method for calculating the mass emission rate based on associated CEMS data.
5.1.15 CO	OAC 902a Condition 4 (11/01/05)	CO emissions from the South Vacuum Heater shall not exceed; • 11.8 lb/hr	*Directly Enforceable* The emission factor generated during the most recent source test shall be used to calculate emissions. Source testing shall be conducted using 40 CFR 60 Appendix A Method 10 or 10B, and at maximum operating rate ≥ 90% of the design firing rate of the heater.
5.1.16 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
North Vacuum Heater (10-1452)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.1.17 General	PSD-5 Amendment 2, Condition 2 (1/20/09)	The North Vacuum Heater firing rate shall not exceed; • 77 MMBtu/hour HHV, 30-day rolling average	*Directly Enforceable* Keep records of the scf/hr of fuel gas combusted and its HHV.
5.1.18 General	PSD-5 Amendment 2, Condition 3 (1/20/09)	Continuously monitor oxygen concentration in the North Vacuum Heater stack.	Operate a device to continuously monitor O_2 concentrations in the North Vacuum Heater stack. *Directly Enforceable* Maintain records of hourly oxygen concentration in the stack.

[7] BART Order #7836, Rev. 1, Condition 2.1 (8/16/13)

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.1.19 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12) NWCAA ACO 05 (10/25/12)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.1.20 SO_2	PSD-5 Amendment 2, Condition 4 and 5 (1/20/09)	Fuel gas combusted in the North Vacuum Heater shall not exceed any of the following; • 160 ppmvd H_2S, 3-hour rolling average • 90 ppmvd H_2S, 30-day rolling average	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.1.21 NOx	PSD-5 Amendment 2, Condition 1 and 6 (1/20/09)	NOx emissions from the North Vacuum Heater shall not exceed any of the following: • 14.6 lb/hr, 1-hr average, quantified as NO_2 • 66 tons, consecutive 12-month rolling	Source test annually using EPA Method 7E and Method 19. The test shall use at least three, 1-hour test runs. The emission factor generated during the most recent source test shall be used to calculate emissions. Conduct testing in accordance with NWCAA 367 and NWCAA Appendix A. *Directly Enforceable* Maintain monthly record of NOx consecutive 12-month rolling tons.
5.1.22 CO	OAC 273b Conditions 1, 2 and 3 (11/18/04)	CO emissions from the North Vacuum Heater shall not exceed: • 27.7 tons, consecutive 12-month rolling	Calculate CO emissions using 0.0823 lb/MMBtu, unless a more accurate emission factor becomes available that is mutually agreed upon by BP and the NWCAA. Maintain monthly record of CO consecutive 12-month rolling tons.
5.1.23 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.1.24 General	PSD-5 Amendment 2, Condition 8 (1/20/09)	General PSD Provision Any activity which is undertaken by the company or others in a manner which is inconsistent with this determination shall be subject to department enforcement under applicable regulations. Nothing in this determination shall be construed to relieve the company of its obligations under any state, or federal laws or regulations.	*Directly Enforceable* Follow Permit Section 2 - Duty to Supplement or Correct Information
5.1.25 General	PSD-5 Amendment 2, Condition 10 (1/20/09)	General PSD Provision Access to the source by EPA, state or local regulatory personnel shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow such access is grounds for revocation of this permit.	*Directly Enforceable* Follow Permit Section 2 – Inspection and Entry
Crude and Vacuum Unit - Hot Wells with Contact Condensers			
5.1.26 VOC	NWCAA 580.221 and 580.25 (2/8/96)	Non-condensable VOC shall be piped to an appropriate firebox, incinerator or to a closed refinery system. Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with accepted industrial practices.	*Directly Enforceable* Record operation and maintenance activities associated with controlling VOC emissions in close vent systems routed to flares or other appropriate control device.
5.1.27 VOC	NWCAA 580.222 and 580.25 (2/8/96)	Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system. Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with accepted industrial practices.	*Directly Enforceable* Record operation and maintenance activities associated with hot wells with contact condensers.

Crude and Vacuum Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Crude and Vacuum Unit - Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.1.28 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
Crude and Vacuum Unit - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.1.29 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.2. Reformer and Naphtha Units

Table 5-2 #1 Reformer, Naphtha HDS, and #2 Reformer

#1 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Reformer Heater (11-1403:1406)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.1 General	OAC 1054, Condition 3 (4/12/12)	Naphtha HDS Stripper Reboiler shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the reboiler.
5.2.2 PM & SO_2	OAC 211c Conditions 1(g) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.2.3 SO_2	NWCAA ACO 05 (10/25/12)[8] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.2.4 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.-

[8] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

#1 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Reformer – Process Vents			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.5 HAP	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I – Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2. This does not apply to catalyst regeneration vents per 40 CFR 63 Subpart CC 63.640(d)(4).	Follow Permit Terms 5.13.6 through 5.13.10 (flares)
5.2.6 HAP	40 CFR 63 Subpart UUU 63.1574(f), 63.1575(a) and (b) and 63.1576(b) (2/9/05) NWCAA 104.2 (8/9/12)	Refinery MACT II – OM&M Plan Follow appropriate work practice standards and comply with any applicable emission standards. Prepare, maintain and implement an operation, maintenance and monitoring plan (OMMP) that meets the requirements of 63.1574(f)(2) for each control system and continuous monitoring system and operate at all times according to procedures in the plan.	Submit semi-annual compliance report that includes any deviation from emission limitation or work practice standards and information on whether any continuous monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted. Keep records to demonstrate that procedures in the OMMP were followed. Submit any revisions to the OMMP to the NWCAA.
5.2.7 HAP	40 CFR 63 Subpart UUU 63.1566, 63.1570(f) (4/20/06) and 63.1576(h) (2/9/05) NWCAA 104.2 (8/9/12)	Refinery MACT II - Organic HAP Emissions Control organic HAP emissions by depressuring and purging to a combustion device or a flare that meets the requirements of 63.11(b). These limits do not apply to depressuring and purging operations when the reactor vent pressure is 5 psig or less.	Operate in accordance with the OMMP and the Startup, Shutdown and Malfunction Plan (SSMP) developed for this unit. Report any instances of deviation from any emission limitation, operating limit or work practice standard, including any deviation that occurred during periods of startup, shutdown, and malfunction.

#1 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.2.8 HAP	40 CFR 63 Subpart UUU 63.1567, 63.1570(f) (4/20/06), 63.1576(h) and Table 22 (2/9/05) NWCAA 104.2 (8/9/12)	Refinery MACT II - Inorganic HAP Emissions During coke burn-off and catalyst rejuvenation reduce uncontrolled emissions of hydrogen chloride by 92% by weight or to a concentration of 30 ppmvd corrected to 3% O_2 from process vent at the existing semi-regenerative catalytic reforming unit.	Operate in accordance with the OMMP and the SSMP and report any instances of deviation from any emission limitation, operating limit or work practice standard, including any deviation that occurred during periods of startup, shutdown, and malfunction. Demonstrate compliance by measuring and recording the HCl concentration at least 4 times during a regeneration cycle or every 4 hours, whichever is more frequent, using a colorimetric tube sampling system. Calculate daily average HCl concentration as arithmetic average of all samples collected during a 24 hour period.
#1 Reformer - Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.2.9 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
#1 Reformer - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.10 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

#1 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Reformer Unit - Recycle Gas Dryer Project - Components in VOC/HAP Service			
5.2.11 VOC/ HAP	OAC 977 Condition 2 (1/22/07)	<u>BACT for Equipment Leaks</u> Components associated with the Heater Reliability Project are subject to a LDAR program consistent with 40 CFR 60 Subpart VV, enhanced as follows. • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21

Naphtha HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Naphtha HDS Charge Heater (11-1401)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.12 General	OAC 1054, Condition 3 (4/12/12)	Naphtha HDS Charge Heater shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.2.13 PM & SO_2	OAC 211c Conditions 1(e) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.2.14 SO_2	NWCAA ACO 05 (10/25/12)[9] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.2.15 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Naphtha HDS Stripper Reboiler (11-1402)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.16 General	OAC 1054, Condition 3 (4/12/12)	Naphtha HDS Stripper Reboiler shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the reboiler.
5.2.17 PM & SO_2	OAC 211c Conditions 1(f) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.

Naphtha HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.2.18 SO_2	NWCAA ACO 05 (10/25/12)[10] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.2.19 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Naphtha HDS - Process Vents			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.20 HAP	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I – Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2. This does not apply to catalyst regeneration vents per 40 CFR 63 Subpart CC 63.640(d)(4).	Follow Permit Terms 5.13.6 through 5.13.10 (flares)

[9] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)
[10] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Naphtha HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Naphtha HDS – Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.21 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

#2 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 Reformer Heater (21-1421:1424)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.22 General	OAC 305a, Condition 5 (5/3/12)	The #2 Reformer Heater shall combust only gaseous fuels.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.2.23 General	PSD-7, Condition 2 (3/13/86) OAC 305a, Condition 1 (5/3/12)	Firing of the #2 Reformer Heater shall not exceed 340 MMBtu/hour (HHV), hourly average	*Directly Enforceable* Maintain records of average hourly heat input in MMBtu/hour (HHV).
5.2.24 General	PSD-7, Condition 3 (3/13/86)	Operate device to continuously monitor O_2 concentrations in the #2 Reformer Heater stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendix B.	Maintain oxygen monitoring records.

#2 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.2.25 VE	OAC 305a, Condition 4 (5/3/12)	Visual emissions shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.2.26 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.2.27 SO_2	PSD-7, Condition 4 and 5 (3/13/86) OAC 305a, Conditions 2 and 3 (5/3/12)	<u>BACT for Fuel Gas</u> Fuel gas combusted in the #2 Reformer Heater shall not exceed any of the following; • 160 ppm H_2S, 3-hour rolling average • 90 ppm H_2S, calendar month average	
5.2.28 NOx	PSD-7, Condition 1b (3/13/86)	NOx emissions from the #2 Reformer Heater shall not exceed any of the following; • 32.0 lb/hr, 60-minute rolling average • 140 tons, consecutive 12-month rolling	*Directly Enforceable* Conduct a performance test using EPA Method 7E and Method 19 at least once every other calendar year in accordance with NWCAA 367 and NWCAA Appendix A. The Method 19 analysis shall be performed using fuel gas composition data from the day of the test. Maintain monthly record of NOx consecutive 12-month rolling tons.
5.2.29 CO	PSD-7, Condition 1a (3/13/86)	CO emissions from the #2 Reformer Heater shall not exceed any of the following; • 11.0 lb/hr, 60-minute rolling average • 48.3 tons, consecutive 12-month rolling	*Directly Enforceable* Conduct a source test using EPA Method 10 or 10B and Method 19 at least once every other calendar year in accordance with NWCAA Section 367 and NWCAA Appendix A. Maintain monthly record of CO consecutive 12-month rolling tons.

#2 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.2.30 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
5.2.31 General	PSD-7, Condition 10 (3/13/86)	Access to the source by EPA, state or local air quality regulatory personnel shall be permitted upon request for the purpose of compliance inspections.	- None -
#2 Reformer – Process Vents			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.32 HAP	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I – Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2. This does not apply to catalyst regeneration vents per 40 CFR 63 Subpart CC 63.640(d)(4).	Follow Permit Terms 5.13.6 through 5.13.10 (flares)
5.2.33 HAP	40 CFR 63 Subpart UUU 63.1574(f), 63.1575(a) and (b) and 63.1576(b) (2/9/05) NWCAA 104.2 (8/9/12	Refinery MACT II – OM&M Plan Follow appropriate work practice standards and comply with any applicable emission standards. Prepare, maintain and implement an operation, maintenance and monitoring plan (OMMP) that meets the requirements of 63.1574(f)(2) for each control system and continuous monitoring system and operate at all times according to procedures in the plan.	Submit semi-annual compliance report that includes any deviation from emission limitation or work practice standards and information on whether any continuous monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted. Keep records to demonstrate that procedures in the OMMP were followed. Submit any revisions to the OMMP to the NWCAA.
5.2.34 HAP	40 CFR 63.1566, 63.1570(f) (4/20/06) and 63.1576(h) (2/9/05) NWCAA 104.2 (8/9/12)	Refinery MACT II – Organic HAP Emissions Control organic HAP emissions by depressuring and purging to a combustion device or a flare that meets the requirements of 63.11(b). These limits do not apply to depressuring and purging operations when the reactor vent pressure is 5 psig or less.	Operate in accordance with the OMMP and the Startup, Shutdown and Malfunction Plan (SSMP) developed for this unit. Report any instances of deviation from any emission limitation, operating limit or work practice standard, including any deviation that occurred during periods of startup, shutdown, and malfunction.

#2 Reformer Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.2.35 HAP	40 CFR 63 Subpart UUU 63.1567, 63.1570(f) (4/20/06), 63.1576(h) and Table 22 (2/9/05) NWCAA 104.2 (8/9/12)	Refinery MACT II - Inorganic HAP Emissions During coke burn-off and catalyst rejuvenation reduce uncontrolled emissions of hydrogen chloride by 92% by weight or to a concentration of 30 ppmvd corrected to 3% O_2 from process vent at the existing semi-regenerative catalytic reforming unit.	Operate in accordance with the OMMP and the SSMP and report any instances of deviation from any emission limitation, operating limit or work practice standard, including any deviation that occurred during periods of startup, shutdown and malfunction. Demonstrate compliance by measuring and recording the HCL concentration at least 4 times during a regeneration cycle or every 4 hours, whichever is more frequent, using a colorimetric tube sampling system. Calculate daily average HCl concentration as arithmetic average of all samples collected during a 24 hour period.
#2 Reformer – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.2.36 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
#2 Reformer – Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.2.37 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.3. Hydrocracker Unit

Table 5-3 Hydrocracker Unit

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Hydrocracker 1st Stage Reactor Heater, R-1 (15-1401)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.1 General	OAC 1054, Condition 3 (4/12/12)	The Hydrocracker 1st Stage Reactor Heater shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.3.2 General	OAC 966b Condition 1 (4/21/11)	Fuel combusted in the Hydrocracker 1st Stage Reactor Heater shall be limited to natural gas and refinery fuel gas.	
5.3.3 VE	OAC 966b Conditions 2 and 7a (4/21/11)	Heat input to the Hydrocracker 1st Stage Reactor Heater shall not exceed 120.9 MMBtu/hour HHV, based on a 30-day rolling average.	Maintain a record of the input to the heater in MMBtu/hour HHV, as hourly, daily and 30-day rolling averages.
5.3.4 VE	OAC 966b Condition 3 (4/21/11)	Visual emissions shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.3.5 PM & SO_2	OAC 211c Conditions 1(l) and 2 (9/18/12)	<u>Cumulative Particulate and SO_2 limit</u> The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.3.6 SO_2	NWCAA ACO 05 (10/25/12)[11] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e)(1) (6/24/08)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15

[11] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.7 NOx	Ecology BART Order 7836 Rev. 1, Conditions 2.5.1, 2.5.2 and 2.5.3 (8/16/13)	NOx emissions from the 1st Stage Reactor Heater shall not exceed; • 26 ppmvd @ 7% O_2, 24-hour rolling average Or, if this concentration based limit is exceeded, the following mass emission rate limit shall be used to demonstrate compliance: • 3.6 lb/hour, 24-hour rolling average	Conduct biennial source testing within two months of the anniversary date of the initial test. The test shall be performed under representative operating conditions and at a heater firing rate that corresponds to the operating condition of the Hydrocracker Unit on the scheduled test day. The test shall be conducted in accordance with US EPA Reference Method 7E, NWCAA Regulation Section 367, and NWCAA Appendix A. Operate a CEMS to continuously monitor NOx & O_2 concentrations in the stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F.
5.3.8 NOx	OAC 966b Conditions 3, 7b and 7c (4/21/11)	NOx emissions from the 1st Stage Reactor Heater shall not exceed; • 26 ppmvd @ 7% O_2, 24-hour rolling average Or, if this concentration based limit is exceeded, the following mass emission rate limit shall be used to demonstrate compliance: • 4.9 lb/hour, 24-hour rolling average	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Maintain a record of: • NOx ppmvd corrected to 7% oxygen, as hourly and 24-hour averages, and • NOx lb/hour, as hourly and 24-hour averages
5.3.9 NOx	OAC 966b Condition 6 (4/21/11) [12]	An operating and maintenance manual that contains O&M information on the ultra-low NOx burners shall be maintained on site.	Maintain an O&M manual for the ULNB on site.

[12] BART Order #7836 Rev. 1, Condition 2.5.4 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.3.10 CO	OAC 966b Conditions 5 and 7d (4/21/11)	CO emissions from the 1st Stage Reactor Heater shall not exceed; • 5.4 lb/hour	Conduct source testing within thirteen months of the previous test. Testing shall be performed under representative operating conditions and at a heater firing rate that corresponds to the operating condition of the Hydrocracker Unit on the scheduled test day. Compliance shall be determined by the average of three test runs conducted in accordance with 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4 and 10, and NWCAA Section 367 and Appendix A, unless an alternative test method is approved in advance by the NWCAA. Continuous compliance with this condition shall be determined using the emission factor in lb/MMBtu generated during the most recent source test and actual firing rates in MMBtu/hour of the heater. Maintain a record of CO emissions in lb/hour. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.
5.3.11 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Hydrocracker 2nd Stage Reactor Heater, R-4 (15-1402)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.12 General	OAC 1054, Condition 3 (4/12/12)	The Hydrocracker 2nd Stage Reactor Heater shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.3.13 PM & SO_2	OAC 211c Conditions 1(m) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.3.14 SO_2	NWCAA ACO 05 (10/25/12)[13] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e)(1) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.3.15 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Hydrocracker 1st Stage Fractionator Reboiler (15-1451)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.16 General	OAC 1054, Condition 3 (4/12/12)	The Hydrocracker 1st Stage Fractionator Reboiler shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the reboiler.
5.3.17 General	OAC 1067a Condition 1 (7/29/11)	The 1st Stage Fractionator Reboiler limited to combusting only natural gas or refinery fuel gas.	*Directly Enforceable* Certify annually that only natural gas and/or refinery fuel gas was combusted in the reboiler.

[13] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.18 General	OAC 1067a Condition 2 and 10a (7/29/11)	The 1st Stage Fractionator Reboiler heat input shall not exceed 198 MMBtu/hr (HHV), 365-day rolling average.	Maintain the following records of the HHV heat input rate to the 1st Stage Fractionator Reboiler; • MMBtu/hour, daily average • MMBtu/hour, 365-day rolling average
5.3.19 VE	OAC 1067a Condition 3 (7/29/11)	Visual emissions shall not exceed 5% opacity for more than three minutes in any consecutive sixty-minute period (Ecology Method 9A).	Directly Enforceable - Conduct MR&R in accordance with Section 6.1 of this permit.
5.3.20 PM & SO_2	OAC 211c Conditions 1(n) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.3.21 SO_2	NWCAA ACO 05 (10/25/12)[14] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e)(1) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15

[14] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.22 NOx	OAC 1067a Conditions 4, 5 10b and 10c (7/29/11)	NOx emissions from the 1st Stage Fractionator Reboiler shall not exceed any of the following: • 9.9 lb/hr, 24-hr rolling average • 0.05 lb/MMBtu, 24-hr rolling average	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the reboiler stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Compliance shall be demonstrated using calculations described in 40 CFR 60 Appendix A, Method 19, using appropriate F-factors that are based on fuel composition analyses, and the Btu heat input rate to the Reboiler Maintain the following records for the 1st Stage Fractionator Reboiler; • NOx ppmvd at 3% O_2, hourly and 24-hour average • NOx lb/MMBtu, hourly and 24-hour average • NOx lb/hour, hourly and 24-hour average • Results of any fuel composition analysis used to determine Method 19 F factors, and Method 19 calculations used to determine mass emission rates
5.3.23 NOx	BART Order 7836 Rev. 1 Condition 2.6 (8/16/13)	NOx emissions from the 1st Stage Fractionator Reboiler shall not exceed any of the following: • 0.07 lb/MMBtu, monthly average • 56.2 ton per calendar year	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the reboiler stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F.
5.3.24 NOx	OAC 1067a Condition 9 (7/29/11)[15]	An operating and maintenance (O & M) manual for the ULNB installed on the 1st Stage Fractionator Reboiler shall be maintained on site.	Maintained a copy of the O & M manual for the 1st Stage Fractionator Reboiler ULNB.

[15] BART Order #7836 Rev. 1, Condition 2.6.3 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.25 CO	OAC 1067a Condition 6, 7, 8, 10c and 10d (7/29/11)	CO emissions from the 1st Stage Fractionator Reboiler shall not exceed: • 0.04 lb/MMBtu, 24-hr rolling average During periods when this performance based limit is exceeded, the following mass emission rate limit shall be used to demonstrate compliance: • 7.9 lb/hr, 24-hr rolling average Compliance can be demonstrated through annual source testing or operating a CEMS. There shall be no more than 12 months without monitoring during any transition between these two compliance options.	Conduct annual source testing within eleven to thirteen months of the anniversary of the initial test (October 2012). Testing shall be conducted in accordance with 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4, and 10, 10A or 10B, and NWCAA Section 367 and Appendix A. Alternative test methods may be used if approved in advance by the NWCAA. During source testing, the reboiler shall be fired at a rate that is as close to its maximum capacity as practical. If the reboiler is fired at a rate that is less than 90% of its maximum capacity, the reason shall be explained in the source test report. Compliance shall be determined by the results of the average of three source test runs - or - Operate a CEMS for CO and O_2 in the 1st Stage Fractionator Reboiler stack in accordance with 40 CFR 60 Appendices B and F, and NWCAA Section 367 and Appendix A. Continuous compliance shall be demonstrated using calculations described in 40 CFR 60 Appendix A, Method 19, using appropriate F-factors that are based on fuel composition analyses, and the Btu heat input rate to the reboiler. Maintain the following records for the 1st Stage Fractionator Reboiler; • Fuel composition analysis used to determine Method 19 F factors • Method 19 calculations used to determine mass emission rates If a CEMS is used to comply with the CO limits, • CO ppmvd at 3% O_2, hourly and 24-hour rolling averages • CO lb/MMBtu, hourly and 24-hour rolling averages • CO lb/hour, hourly and 24-hour rolling averages

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.26 SO_2	NWCAA ACO 05 (10/25/12)[16] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e)(1) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.3.27 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Hydrocracker 2nd Stage Fractionator Reboiler (15-1452)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.28 General	OAC 1054, Condition 3 (4/12/12)	The Hydrocracker 2nd Stage Fractionator Reboiler shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.3.29 General	OAC 847b, Condition 1 (7/17/12)	The Hydrocracker 2nd Stage Fractionator Reboiler shall combust only natural gas and/or refinery fuel gas.	
5.3.30 General	OAC 847b, Condition 3 (7/17/12)	The maximum firing rate of the 2nd Stage Fractionator Reboiler shall not exceed; • 183.4 MMBtu/hr HHV, 720-hour rolling average of the most recent 720 full operating hours.	*Directly Enforceable* Maintain a record of the MMBtu/hour firing rate as hourly averages, and 720 hour rolling averages.
5.3.31 VE	OAC 847b, Condition 2 (7/17/12)	Visual emissions shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.3.32 PM & SO_2	OAC 211c Conditions 1(o) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.

[16] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.3.33 SO_2	NWCAA ACO 05 (10/25/12)[17] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e)(1) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.3.34 NOx	OAC 847b, Condition 4 (7/17/12) BART Order 7836 Rev. 1 Condition 2.7.1, 2.7.2, 2.7.3 (8/16/13)	NOx emissions from the 2nd Stage Fractionator Reboiler shall not exceed; • 0.07 lb/MMBtu, 1-hour average • 56.2 ton per calendar year	Conduct a source test by no later than December 31, 2012, and at least once every thirteen months thereafter. Compliance shall be determined by the average of three consecutive 60-minute test runs. During testing the reboiler shall be fired at a rate of 165 MMBtu/hour or higher (90% of the permitted capacity) unless an alternative firing rate is approved in advance by the NWCAA. Testing shall be conducted in accordance with 40 CFR 60 Appendix A, Methods 7E and 19, and NWCAA Section 367 and Appendix A. A fuel gas composition analysis shall be conducted using a gas chromatograph of the fuel gas being fired in the Hydrocracker 2nd Stage Fractionator Reboiler during source testing. Report NOx emissions for each calendar month within 30 days after then end of the previous calendar month.
5.3.35 NOx	OAC 847b, Condition 5 (7/17/12) [18]	An operating and maintenance (O & M) manual for the 2nd Stage Fractionator Reboiler that contains O & M information on the-low NOx burners shall be maintained on site.	Maintain O & M manual for the 2nd Stage Fractionator Reboiler.
5.3.36 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Hydrocracker - Process Vents			

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.37 HAP	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I - Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2.	Follow Permit Terms 5.13.6 through 5.13.10 (flares)
Hydrocracker – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.3.38 VOC	40 CFR 60 Subpart GGGa 60.590a-60.593a (6/2/08) which references 40 CFR 60 Subpart VVa (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21
Hydrocracker - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.3.39 HAP	40 CFR 63 Subpart CC 63.640(p)(2) (10/28/09) which references 40 CFR 60 Subpart VVa (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21

[17] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)
[18] BART Order #7836 Rev. 1, Condition 2.7.4 (8/16/13)

Hydrocracker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Hydrocracker - Incremental Vacuum Gas Oil Recovery Project - Components in HAP Service			
5.3.40 HAP	OAC 850 (12/1/03)	BACT for Equipment Leaks Components associated with the Incremental Vacuum Gas Oil Recovery Project that are in HAP service and subject to the LDAR provisions of 40 CFR 63 Subpart CC, are subject to an enhanced LDAR program as follows; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21
Hydrocracker - 1st Stage Reactor Heater ULNB Project - Components in VOC/HAP Service			
5.3.41 VOC/ HAP	OAC 966b Condition 8 (4/21/11)	BACT for Equipment Leaks The following provisions shall be in effect for new valves associated with the Hydrocracker 1st Stage Reactor Heater UNLB Retrofit Project that have the potential to leak VOC or HAP. • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21

5.4. Delayed Coker Unit

Table 5-4 Delayed Coker Unit

Delayed Coker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
North Coker Charge Heater (12-1401-01) and South Coker Charge Heater (12-1401-02)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.4.1	OAC 1054, Condition 2 (4/12/12)	The North Coker Charge Heater and South North Coker Charge Heater shall combust gaseous fuel or a combination of gaseous and liquid fuel where the percentage of liquid fuel combusted in each heater does not exceed 75% by weight. Fuel combusted in each heater shall not exceed 1.2% by weight sulfur.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heaters.
5.4.2 VE	OAC 689b Condition 1.1.4 (9/18/12)	Visual emissions shall not exceed an average of 5% opacity in any consecutive six-minute period (Method 9).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except that the applicable compliance method is EPA Method 9 instead of Ecology Method 9A.
5.4.3 PM & SO_2	OAC 211c Conditions 1(c), 1(d) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.4.4 SO_2	OAC 689b Conditions 1.1.2 and 2.1.2 (9/18/12)[19]	SO_2 emissions from each Coker Charge Heater shall not exceed any of the following; • 14.9 lb/hr • 66 tons, cumulative 12-month rolling total	Perform biennial performance test on one of two identical heaters using 40 CFR 60 Appendix Method 6 or 6C, or fuel gas analysis. *Directly Enforceable* Maintain a monthly record of SO_2 tons, cumulative 12-month rolling total.

[19] BART Order #7836 Rev. 1, Condition 3.1 (8/16/13)

Delayed Coker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.4.5 SO_2	NWCAA ACO 05 (10/25/12)[20] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.4.6 SO_2	OAC 689b Conditions 1.4.1, 2.4.1 and 3.4.1 (9/18/12)	Fuel gas combusted in the Coker Charge Heaters (Coker fuel gas) shall not exceed; • 50 ppmvd H_2S, calendar day average	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15. The monthly report shall include the highest monthly H_2S ppmvd, 3-hour average of the Coker fuel gas.
5.4.7 CO	OAC 689b Conditions 1.1.3 and 2.1.3 (9/18/12)	CO emissions from each Coker Charge Heater shall not exceed any of the following; • 4.28 lb/hour • 19 tons, cumulative 12-month rolling total	Conduct a biennial source test on one of two heaters using 40 CFR 60 Appendix A Method 10, 10B or approved alternative. *Directly Enforceable* Maintain monthly record of CO tons, cumulative 12-month rolling total.

[20] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

Delayed Coker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.4.8 NOx	OAC 689b Conditions 1.1.1 and 2.1.1 (9/18/12)[21] 40 CFR 64 CAM (10/22/97)	NOx emissions from each Coker Charge Heater shall not exceed any of the following; • 15.2 lb/hour • 66 tons, cumulative 12-month rolling total Operate the external flue gas recirculation (FGR) system on each Coker Charge Heater per manufacturer's recommendations whenever the heater is operating.	Conduct a biennial source test on one of two heaters using 40 CFR 60 Appendix A Method 7A or 7E. Conduct a weekly visual inspection of the flame pattern on each Coker Charge Heater to ensure that the flue gas recirculation (FGR) system is operating. An exceedance of the lb/hour NOx limit occurs when it is determined that a Coker Charge heater is operating without FGR. *Directly Enforceable* Maintain monthly record of NOx tons, cumulative 12-month rolling total.
5.4.9 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Delayed Coker - Process Vents			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.4.10 HAP	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I – Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2.	Follow Permit Terms 5.13.6 through 5.13.10 (flares)

[21] BART Order #7836 Rev. 1, Conditions 2.2, and 2.3 (8/16/13)

Delayed Coker Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Delayed Coker – Coker Blowdown Vapors			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.4.11 VOC/ SO_2	OAC 890c, Condition 9 and 10 (7/21/11)	Coker blowdown vapors shall be routed to and recovered by Coker wet gas recovery compressor #12-1801. When compressor 12-1801 is unavailable due to process upset or maintenance activity, both flare gas recovery compressors shall be lined to the low pressure flare header during the coke drum blowdown process. During maintenance operations, and certain malfunction events, an alternative method of ensuring compliance is to line both the high and low pressure flare gas recovery compressors to the low pressure flare header to maximize the collection of Coker blow down vapors to the extent practicable.	a. Continuously monitor and record the operating position of remote activated valve #HV-331 and intake pressure to Coker Wet Gas Recovery Compressor #12-1801. b. Following written standard operating procedures that assure that Coker blowdown vapors are properly routed to Coker Wet Gas Compressor #12-1801, except; i. When the intake pressure to Coker Wet Gas Compressor #12-1801 is near its suction pressure. ii. During a process upset or when maintenance is required. c. A record shall be kept of each process upset or maintenance activity when Coker blowdown vapors are not recovered in accordance with condition b.ii above. Records shall include the time, date, duration and description of each event and an estimate of the resulting SO_2 emissions that would have otherwise been recovered.
Delayed Coker - Equipment in VOC Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.4.12 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Equipment Leaks</u> Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

Delayed Coker Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Delayed Coker - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.4.13 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.5. #1 Diesel HDS Unit

Table 5-5 #1 Diesel HDS Unit

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Diesel HDS Charge Heater (13-1401)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.5.1 General	OAC 1054, Condition 3 (4/12/12)	#1 Diesel HDS Charge Heater shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.5.2 General	OAC 949a Condition 1 (7/1/09)	Fuel combusted in the #1 Diesel HDS Charge Heater is limited to natural gas and refinery fuel gas.	*Directly Enforceable* Certify annually that only natural gas and/or refinery fuel gas was combusted in the heater.
5.5.3 VE	OAC 949a Condition 2 (7/1/09)	Visual emissions from the #1 Diesel HDS Charge Heater shall not exceed 5% for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.5.4 PM & SO_2	OAC 211c Conditions 1(h) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.5.5 SO_2	NWCAA ACO 05 (10/25/12)[22] which references 40 CFR 60 Subpart J60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.5.6 NOx	OAC 949a Condition 3 (7/1/09) [23]	NOx emissions from the #1 Diesel HDS Charge Heater shall not exceed; • 0.040 lb/MMBtu (HHV), 24-hour rolling average If this emission limit is exceeded, the following shall be used to determine compliance. • 1.9 lb/hour, 24-hour rolling average	Operate CEMS to continuously monitor NOx & O_2 concentrations in the #1 Diesel HDS Charge Heater in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F.
5.5.7 NOx	OAC 949a Condition 8 (7/1/09)	An operating and maintenance (O&M) manual shall be maintained on-site for the #1 Diesel HDS Charge Heater that includes information on operation and maintenance of ULNB.	Keep operating and maintenance manuals on-site for the #1 Diesel HDS Charge Heater.

[22] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)
[23] BART Order #7836 Rev. 1, Condition 2.4.1 (8/16/13)

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.5.8 CO	OAC 949a Condition 4, 7 and 10 (7/1/09)	CO emissions from the #1 Diesel HDS Charge Heater shall not exceed; • 3.2 lb/hour	Performance test at least once every three years while firing at a load that is both representative of normal operations at the time of the test and that is the maximum firing rate that is reasonably achievable given the current unit operating conditions. The firing rate that occurred during the test shall be recorded and reported in the performance test report. Testing shall be repeated if the 30-day rolling average firing rate exceeds by more than 20% the firing rate recorded during the previous performance test. The repeat test shall be performed within 90 days of the discovery of the exceedance and shall be performed at a rate no less than the peak hourly operating rate measured during the exceedance period. Testing shall be conducted in accordance with 40 CFR 60 Appendix A Method 10 and, NWCAA 367 and NWCAA Appendix A. Maintain a record of the 720-hr rolling average heat input in MMBtu/hr (HHV) to the heater. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.
5.5.9 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	<u>Major Source Boiler MACT</u> Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
#1 Diesel HDS Stabilizer Reboiler (13-1402)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.5.10 General	OAC 1054, Condition 3 (4/12/12)	#1 Diesel HDS Stabilizer Reboiler shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the reboiler.

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.5.11 General	OAC 949a Condition 1 (7/1/09) NWCAA Permit to Construct (6/8/70)	Fuel combusted in the #1 Diesel HDS Stabilizer Reboiler shall be limited to natural gas and refinery fuel gas.	*Directly Enforceable* Certify annually that only natural gas and/or refinery fuel gas was combusted in the reboiler.
5.5.12 VE	OAC 949a Condition 2 (7/2/09)	Visual emissions from the #1 Diesel HDS Stabilizer Reboiler shall not exceed 5% for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.5.13 PM & SO_2	OAC 211c Conditions 1(i) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.5.14 SO_2	NWCAA ACO 05 (10/25/12)[24] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.5.15 NOx	OAC 949a Condition 5 (7/1/09) [25]	NOx emissions from the #1 Diesel HDS Stabilizer Reboiler shall not exceed; • 26 ppmvd at 7% O2 based on a 24-hour rolling average If this limit is exceeded, the following shall be used to determine compliance. • 2.2 lb/hour based on a 24-hour rolling average.	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the Stabilizer Reboiler stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F.

[24] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)
[25] BART Order #7836 Rev. 1, Condition 2.4.2 (8/16/13)

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.5.16 NOx	OAC 949a Condition 8 (7/1/09)	An operating and maintenance (O&M) manual shall be maintained on-site for the #1 Diesel HDS Stabilizer Reboiler that includes information on operation and maintenance of ULNB.	Keep operating and maintenance manuals on-site for the reboiler.
5.5.17 CO	OAC 949a Condition 6, 7 & 10 (7/1/09)	CO emissions from the #1 Diesel HDS Stabilizer Reboiler shall not exceed; • 3.8 lb/hour	Performance test at least once every three years while firing at a load that is both representative of normal operations at the time of the test and that is the maximum firing rate that is reasonably achievable given the current unit operating conditions. The firing rate that occurred during the test shall be recorded and reported in the performance test report. Testing shall be repeated if the 30-day rolling average firing rate exceeds by more than 20% the firing rate recorded during the previous performance test. The repeat test shall be performed within 90 days of the discovery of the exceedance and shall be performed at a rate no less than the peak hourly operating rate measured during the exceedance period. Testing shall be conducted in accordance with 40 CFR 60 Appendix A Method 10 and, NWCAA 367 and NWCAA Appendix A. Maintain a record of the 720-hr rolling average heat input in MMBtu/hr (HHV) to the reboiler. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.
5.5.18 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	<u>Major Source Boiler MACT</u> Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

#1 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Diesel HDS - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.5.19 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
#1 Diesel HDS – Heater Reliability Project - Components in VOC/HAP Service			
5.5.20 VOC/ HAP	OAC 949a Condition 9 (7/1/09)	BACT for Equipment Leaks Components associated with the Heater Reliability Project are subject to a LDAR program consistent with 40 CFR 60 Subpart VV, enhanced as follows. • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21

5.6. #2 Diesel HDS Unit

Table 5-6 #2 Diesel HDS Unit

#2 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 Diesel HDS Charge Heater (26-1401)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.6.1 General	OAC 892b, Condition 1 (1/28/09)	Fuel combusted in the #2 Diesel HDS Charge Heater is limited to natural gas and refinery fuel gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.6.2 General	OAC 892b, Condition 2 (1/28/09)	Heat input to the #2 Diesel HDS Charge Heater shall not exceed; • 35 MMBtu/hr HHV on a 720-hr rolling ave.	Maintain a record of the 720-hr rolling average heat input in MMBtu/hr (HHV) to the heater.
5.6.3 VE	OAC 892b, Condition 3 (1/28/09)	Visual emissions from the #2 Diesel HDS Charge Heater shall not exceed 5% for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.6.4 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.6.5 SO_2	OAC 892b, Condition 4 (1/28/09)	<u>BACT for Fuel Gas</u> Fuel gas combusted in the #2 Diesel HDS Charge Heater shall not exceed any of the following; • 162 ppm H_2S, 3-hour rolling average • 50 ppm H_2S, 24-hour rolling average	
5.6.6 NOx	OAC 892b, Condition 6 (1/28/09)	An operating and maintenance manual that contains O&M information on the ultra-low NOx burners shall be maintained on site.	Maintain O&M manual for the ULNB on-site.

#2 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.6.7 NOx	OAC 892b, Condition 5a (1/28/09)	NOx emissions from the #2 Diesel HDS Charge Heater shall not exceed: • 0.035 lb/MMBtu	Conduct annual source testing using EPA Methods 7E (NOx) and Method 10 (CO) and in accordance with NWCAA 367 and NWCAA Appendix A. Source tests shall be conducted while firing the heater at a load that is both representative of normal operations at the time of the test and that is the maximum firing rate that is reasonably achievable given the current unit operating conditions. The firing rate that occurred during the test shall be recorded and included in the performance test report. If the 720-hour rolling average firing rate of the heater exceeds by more than 20%, the firing rate recorded during most recent test, a new source test shall be conducted within 90 days of the exceedance. The new test shall be conducted at a firing rate that is equal to, or greater than, the peak hourly operating rate measured during the exceedance period that required additional testing. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.
5.6.8 CO	OAC 892b, Condition 5b (1/28/09)	CO emissions from the #2 DHDS Charge Heater shall not exceed: • 70 ppmvd at 7% O2	
5.6.9 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	<u>Major Source Boiler MACT</u> Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

#2 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 DHDS Unit - Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities			
5.6.10 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
#2 DHDS Unit - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities			
5.6.11 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

#2 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 DHDS Unit - Heater Reliability Project - Components in VOC/HAP Service			
5.6.12 VOC/ HAP	OAC 892b Condition 7 (1/28/09)	BACT for Equipment Leaks Components associated with the Heater Reliability Project are subject to a LDAR program consistent with 40 CFR 60 Subpart VV, enhanced as follows. • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • The leak definition for pumps is 2000 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21

5.7. #3 Diesel HDS Unit

Table 5-7 #3 Diesel HDS Unit

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#3 Diesel HDS Charge Heater			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.7.1 General	PSD-10-01, Condition 9 (12/13/10) OAC 1064a, Condition 19 (3/13/14)	Fuel combusted in the #3 DHDS Charge Heater is limited to natural gas and refinery fuel gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.7.2 General	PSD-10-01, Conditions 10 and 14 (12/13/10) OAC 1064a, Conditions 20 and 30a (3/13/14)	Heat input to the #3 DHDS Charge Heater shall not exceed 28 MMBtu/hr HHV, based on a 365-day rolling average.	Maintain the following records of the HHV heat input rate to the #3 DHDS Charge Heater; • MMBtu/hour, hourly average • MMBtu/hour, daily average • MMBtu/hour, 365-day rolling average
5.7.3 VE	OAC 1064a, Condition 21 (3/13/14)	Visible emissions from the #3 DHDS Charge Heater shall not exceed five percent (5%) opacity for more than three minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.7.4 PM_{10}	PSD-10-01, Conditions 11, 12 and 13 (12/13/10)	PM_{10} (filterable and condensable) emissions from the #3 DHDS Charge Heater shall not exceed any of the following; • 0.28 lb/hr • 0.010 lb/MMBtu	Compliance shall be determined by the average of three test runs using 40 CFR 60 Appendix A, Method 5 (filterable) and 40 CFR 51 Appendix M Method 202 (condensable), or alternative test method approved in advance by the NWCAA. Testing shall be performed by an independent vendor while operating the heater at an average firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. A typical mix of fuel shall be burned during the test. This mix shall be listed in the source test plan. Initial testing shall be performed within 60 days of achieving the maximum firing rate of the heater, but in no case later than 180 days after initial startup. Ongoing testing shall be conducted within 3 months of the 36 month anniversary of the initial test.

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.7.5 $PM_{2.5}$	OAC 1064a, Conditions 23 and 27 (3/13/14)	$PM_{2.5}$ (filterable and condensable) emissions from the #3 DHDS Charge Heater shall not exceed any of the following; • 0.28 lb/hr • 0.010 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4, 5 (filterable) or 40 CFR 51 Appendix M Method 201A (filterable) and 40 CFR 51 Appendix M Method 202 (condensable). Testing shall be performed while operating the heater at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the heater. Ongoing testing shall be conducted within 36 months of the most recent test.
5.7.6 SO_2	OAC 1064a, Condition 22 (3/13/14)	The hydrogen sulfide (H_2S) content of fuel combusted in the #3 DHDS Charge Heater shall not exceed; • 50 ppm, 24-hour rolling average	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.7.7 SO_2	40 CFR 60 Subpart Ja 60.102a(g)(1)(ii) and 60.107a(a)(2) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> The H_2S content of the fuel gas combusted in the #3 DHDS Charge Heater shall not exceed any of the following; • 162 ppmv, 3-hour rolling average • 60 ppmv, 365-day rolling average Compliance shall be achieved upon achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.	Operate a CEMS to continuously monitor the H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60.107a(a)(2), NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11, 15 or 15A

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.7.8 SO_2	OAC 1064a, Conditions 26a, 26b and 27 (3/13/14)	SO_2 emissions from the #3 DHDS Charge Heater shall not exceed any of the following; • 3.04 lb/hour • 0.11 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA. 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4, and 6C. Testing shall be performed while operating the heater at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the heater. Ongoing testing shall be conducted within 36 months of the most recent test.
5.7.9 SO_2	OAC 1064a, Condition 26c, 28, 30b and 31 (3/13/14)	SO_2 emissions from the #3 DHDS Charge Heater shall not exceed the following emission limit. • 3.2 tons, 12-month rolling cumulative	Conduct total sulfur sampling of the fuel gas combusted in the #3 DHDS Charge Heater at least once per calendar month. The samples shall be analyzed for total sulfur content using ASTM Test Method D-5504, or alternative method approved in advance by the NWCAA. A minimum of three samples shall be taken for each monthly sampling event and samples shall be taken at least one hour apart. Maintain the following records; • Results of monthly sampling for total sulfur in fuel gas combusted in the heater. • SO_2 emissions from the heater in cumulative tons per each 12-month rolling period.
5.7.10 SO_2	RESERVED		

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.7.11 NOx	OAC 1064a, Conditions 24 and 27 (3/13/14)	NOx emissions from the #3 DHDS Charge Heater shall not exceed any of the following; • 0.98 lb/hour • 0.035 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4 and 7E. Testing shall be performed while operating the heater at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the heater. Ongoing testing shall be conducted within 36 months of the most recent test.
5.7.12 NOx	OAC 1064a, Condition 29 (3/13/14)	An operating and maintenance (O & M) manual for the #3 DHDS Charge Heater ultra-low NOx burners shall be maintained on site.	Maintain an O & M manual for the #3 DHDS Charge Heater ultra-low NOx burners.
5.7.13 CO	OAC 1064a, Conditions 25 and 27 (3/13/14)	CO emissions from the #3 DHDS Charge Heater shall not exceed any of the following; • 1.03 lb/hour • 0.037 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4 and 10, 10A, or 10B. Testing shall be performed while operating the heater at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the heater. Ongoing testing shall be conducted within 36 months of the most recent test.

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.7.14 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13) 63.7495(a) (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for a new process heater upon start-up.	Comply with AOP Section 6.5, except that 6.5.3 doesn't apply.
5.7.15 General	PSD-10-01, Condition 17 (12/13/10)	O&M Manual Within 90 days of start-up of the #3 DHDS Charge Heater, identify operational parameters and practices that will constitute "good combustion practices." These operational parameters and practices shall be included in an O&M manual for the facility. If a failure to follow the requirements of the manuals results in excess emissions that failure may be considered credible evidence that the event was caused by poor or inadequate operation or maintenance.	Maintain an O&M manual for the #3 DHDS Charge Heater. The O&M manual shall be onsite and available for review by Ecology, NWCAA, or the EPA.
5.7.16 General	PSD-10-01, Condition 16 (12/13/10)	General PSD Provision Sampling ports and platforms shall be provided on the #3 DHDS Charge Heater exhaust stack, after any final pollution control device. The ports shall meet the requirements of 40 CFR Appendix A Method 1. Adequate, permanent, and safe access to test ports shall be provided.	*Directly Enforceable* Follow Permit Section 2 – Source Testing
#3 Diesel HDS – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.7.17 VOC	40 CFR 60 Subpart GGGa 60.590a-60.593a (6/2/08) which references 40 CFR 60 Subpart VVa (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21

#3 Diesel HDS Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#3 Diesel HDS – Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.7.18 HAP	40 CFR 63 Subpart CC 63.640(p)(2) (10/28/09) which references 40 CFR 60 Subpart VVa (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21
#3 Diesel HDS – Unit Wide			
5.7.19		RESERVED	
5.7.20 General	PSD-10-01, Condition 18 (12/13/10)	General PSD Provision Access to the source by Ecology, NWCAA, or the EPA shall be permitted upon request. Failure to allow such access is grounds for an enforcement action under the federal Clean Air Act and the Washington State Clean Air Act.	*Directly Enforceable* Follow Permit Section 2 - Inspection and Entry
5.7.21		RESERVED	

5.8. Isomerization Unit

Table 5-8 Isomerization Unit

Isomerization Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Isomerization Heater (45-1402)			
Note: 40 CFR 60 and 63 General Provisions in Section 3 apply to these affected facilities.			
5.8.1 General	OAC 814b, Condition 1 (7/9/12) PSD-02-04 Amendment 1, Condition 1 & 7 (4/20/05)	The Isomerization Heater shall combust only natural gas and/or refinery fuel gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the heater.
5.8.2 General	PSD-02-04 Amendment 1, Condition 9 (4/20/05)	Facility shall identify "good combustion practices" for the Isomerization Heater. These operational practices and parameters shall be included in the O&M manual for the unit.	O&M manual shall be maintained, followed, and available on-site for review.
5.8.3 General	PSD-02-04 Amendment 1, Condition 8 (4/20/05)	General PSD Provision Sampling ports and platforms shall be provided on each stack, after any final pollution control device. The ports shall meet the requirements of 40 CFR 60 Appendix A, Method 1. Adequate, permanent, and safe access to test ports shall be provided.	*Directly Enforceable* Follow Permit Section 2 - Source Testing
5.8.4 General	PSD-02-04 Amendment 1, Condition 11 (4/20/05)	General PSD Provision Access to the source by the Ecology, NWCAA, or the EPA shall be permitted upon request for the purposes of compliance assurance inspections. Failure to allow such access is grounds for an enforcement action under the federal Clean Air Act or the Washington State Clean Air Act.	*Directly Enforceable* Follow Permit Section 2 - Inspection and Entry

Isomerization Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.8.5 VE	OAC 814b, Condition 2 (7/9/12)	Visual emissions from the Isomerization Heater shall not exceed 5% opacity in any consecutive six-minute period (Method 9).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except that the applicable compliance method is EPA Method 9 instead of Ecology Method 9A.
5.8.6 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.8.7 SO_2	OAC 814b, Condition 3 (7/9/12)	<u>BACT for Fuel Gas</u> Fuel gas combusted in the Isomerization Heater shall not exceed any of the following; • 162 ppm H_2S, 3-hour rolling average • 50 ppm H_2S, 24-hour rolling average.	
5.8.8 NOx	PSD-02-04 Amendment 1, Conditions 2 and 7 (4/20/05)	NOx emissions from the Isomerization Heater shall not exceed; • 0.10 lb/MMBtu, calendar day average, or • 0.455 lb/hr, calendar day average	Conduct annual performance testing when the heater is operating at a minimum of 90% of maximum load. The test shall be conducted in accordance with 40 CFR 60 Appendix A Method 7E, NWCAA 367 and NWCAA Appendix A. Include maximum monthly NOx lb/hr calendar day average in monthly report.

Isomerization Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.8.9 CO	PSD-02-04 Amendment 1, Conditions 4 and 7 (4/20/05)	CO emissions from the Isomerization Heater shall not exceed any of the following; • 70 ppmvd at 7% O2, calendar day ave. • 1.1 lb/hr, calendar day average	Conduct annual performance testing when the heater is operating at a minimum of 90% of maximum load. The test shall be conducted in accordance with 40 CFR 60 Appendix A Method 10, NWCAA 367 and NWCAA Appendix A. Include maximum monthly CO lb/hr calendar day average in monthly report. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.
5.8.10 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.
Isomerization Unit – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions in Section 3 apply to these affected facilities.			
5.8.11 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

Isomerization Unit			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Isomerization Unit - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions in Section 3 apply to these affected facilities.			
5.8.12 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	<u>MACT for Equipment Leaks</u> Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21
Isomerization Unit – Components in VOC/HAP Service			
5.8.13 VOC/ HAP	OAC 814b, Condition 5 (7/9/12)	<u>BACT for Equipment Leaks</u> The following provisions shall be in effect for valves and pumps at the Isomerization Unit that have the potential to leak VOC and/or HAP. • The leak definition for block valves and control valves is 500 ppm. • The leak definition for pumps is 2000 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the above leak definitions, but less than the leak definitions of the applicable portions of 40 CFR 60 Subpart GGG, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that ; • The leak definition for block valves and control valves is 500 ppm. • The leak definition for pumps is 2000 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the above leak definitions, but less than the leak definitions of the applicable portions of 40 CFR 60 Subpart GGG, within 30 days. Follow 40 CFR 60 Appendix A Method 21

5.9. Light Ends and LPG Units

Table 5-9 Light Ends Unit and LPG Unit

Light Ends and LPG Units			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Light Ends Unit – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.9.1 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) and NWCAA 580.8 (3/13/97) which reference 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12) NWCAA 580.846 (12/13/89)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3, in addition; • Visually inspect any relief valve within 24 hours after it has vented to atmosphere. Follow 40 CFR 60 Appendix A Method 21
LPG Unit - Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.9.2 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) and NWCAA 580.8 (3/13/97) which reference 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12) NWCAA 580.846 (12/13/89)	NSPS for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3, in addition; • Visually inspect any relief valve within 24 hours after it has vented to atmosphere. Follow 40 CFR 60 Appendix A Method 21

5.10. Hydrogen Plants

Table 5-10 #1 Hydrogen Plant and #2 Hydrogen Plant

#1 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Hydrogen Plant North and South Reforming Furnaces (14-1401:1402)			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.10.1 General	OAC 1054, Condition 3 (4/12/12)	The North and South Reforming Furnaces shall combust gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the furnaces.
5.10.2 PM & SO_2	OAC 211c Conditions 1(j), 1(k) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.10.3 SO_2	NWCAA ACO 05 (10/25/12)[26] which references 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.10.4 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

[26] BART Order #7836 Rev. 1, Conditions 3.2, 6.2 and 6.3 (8/16/13)

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
#2 Hydrogen Plant SMR Furnace			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.10.5 General	PSD-10-01, Condition 1 (12/13/10) OAC 1064a, Condition 2 (3/13/14)	Fuels combusted in the #2 Hydrogen SMR Furnace is limited to natural gas and PSA off-gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the furnace.
5.10.6 General	PSD-10-01, Conditions 2, 8.1 and 8.2 (12/13/10) OAC 1064a, Condition 1 and 14a (3/13/14)	Heat input to the #2 Hydrogen SMR Furnace shall not exceed 496 MMBtu/hr HHV on a 365-day rolling average.	Maintain the following records of the HHV heat input rate to the #2 Hydrogen Plant SMR Furnace; • MMBtu/hour, hourly average • MMBtu/hour, daily average • MMBtu/hour, 365-day rolling average
5.10.7 VE	OAC 1064a, Condition 3 (3/13/14)	Visible emissions from the #2 Hydrogen SMR Furnace shall not exceed five percent (5%) opacity for more than three minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.8 PM_{10}	PSD-10-01, Conditions 3, 4 and 5 (12/13/10)	PM_{10} (filterable and condensable) emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 4.96 lb/hr • 0.010 lb/MMBtu	Compliance shall be determined by the average of three test runs using 40 CFR 60 Appendix A, Method 5 (filterable) and 40 CFR 51 Appendix M Method 202 (condensable), or alternative test method approved in advance by the NWCAA. Testing shall be performed by an independent vendor while operating the furnace at an average firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. A typical mix of fuel shall be burned during the test. This mix shall be listed in the source test plan. Initial testing shall be performed within 60 days of achieving the maximum firing rate of the furnace, but in no case later than 180 days after initial startup. Ongoing testing shall be conducted annually within 11 to 13 months of the anniversary of the initial test. After three consecutive years of annual testing demonstrating compliance, testing may be reduced to once every five years. If a test demonstrates noncompliance, a retest and resumption of annual testing shall be conducted until three consecutive annual tests demonstrate compliance.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.9 $PM_{2.5}$	OAC 1064a, Conditions 4 and 11 (3/13/14)	$PM_{2.5}$ (filterable and condensable) emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 4.96 lb/hr • 0.010 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4, 5 (filterable) or 40 CFR 51 Appendix M Method 201A (filterable) and 40 CFR 51 Appendix M Method 202 (condensable). Testing shall be performed while operating the furnace at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the furnace. Ongoing testing shall be conducted annually within 11 to 13 months of the anniversary of the initial test.
5.10.10 NOx	40 CFR 60 Subpart Ja 60.102a(g)(2)(i)(A) and 60.107a(c) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS for Natural Draft Process Heaters</u> NOx emissions from the #2 Hydrogen SMR Furnace shall not exceed; • 40 ppmvd @ 0% O_2, 30 day rolling average Compliance shall be achieved upon achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the furnace stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. The span value of this NOx monitor must be between 2 and 3 times the applicable emissions limit, inclusive.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.11 NOx	OAC 1064a, Conditions 5, 14c and 14d (3/13/14)	NOx emissions from the #2 Hydrogen SMR Furnace shall not exceed; During normal operations with SCR • 3.54 lb/hr, 24 hour rolling average During maintenance activities without SCR • 17.4 lb/hr, 24 hour rolling average	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the furnace stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Maintain a record of the following for the SMR Furnace; • NOx ppmvd at 3% O_2, hourly and 24-hour average • NOx lb/hr, hourly and 24-hour average, calculated using exhaust flow rate determined as per AOP term 5.10.20.
5.10.12 NOx	OAC 1064a, Conditions 12, 14g and 14h (3/13/14)	Operating the #2 Hydrogen Plant SMR Furnace without SCR shall not exceed 100 hours, as a cumulative 12-monthly rolling total.	Maintain the following records for the SMR Furnace. • Time, date, duration and reason for each event when the furnace is operated without SCR • Number of hours that the furnace is operated without SCR, as a cumulative 12-month rolling total.
5.10.13 CO	OAC 1064a, Conditions 6, 14c and 14d (3/13/14)	CO emissions from the #2 Hydrogen SMR Furnace shall not exceed; • 4.31 lb/hr, 24 hour rolling average	Operate a CEMS to continuously monitor CO & O_2 concentrations in the furnace stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Maintain a record of the following for the SMR Furnace; • CO ppmvd at 3% O_2, hourly and 24-hour average • CO lb/hr, hourly and 24-hour average, calculated using exhaust flow rate determined as per AOP term 5.10.20.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.14 SO_2	40 CFR 60 Subpart Ja 60.102a(g)(1)(ii) and 60.107a(a)(3)(iii) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> The H_2S content of the fuel gas combusted in the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 162 ppmv, 3-hour rolling average • 60 ppmv, 365-day rolling average Compliance shall be achieved upon achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.	Certify annually that fuel gas combusted in the #2 Hydrogen SMR Furnace is inherently low in sulfur as provided in 60.107a(a)(3).
5.10.15 SO_2	OAC 1064a, Conditions 7, 14c, 14d and 14e (3/13/14)	SO_2 emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 2.83 lb/hr, 24 hour rolling average • 6.3 tons, 12-month rolling cumulative	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the furnace stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Maintain a record of the following for the SMR Furnace; • SO_2 ppmvd at 3% O2, hourly and 24-hour average • SO_2 lb/hr, hourly and 24-hour average, calculated using exhaust flow rate determined as per AOP term 5.10.20. • SO_2 tons, monthly and 12-month rolling total

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.16 VOC	OAC 1064a, Conditions 8 and 11 (3/13/14)	VOC emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 2.67 lb/hr • 0.0054 lb/MMBtu	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4, and 18 or 25. Testing shall be performed while operating the furnace at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the furnace. Ongoing testing shall be conducted annually within 11 to 13 months of the anniversary of the initial test. *Directly Enforceable* 40 CFR 60 Appendix A, Method 25A or 25B may be used in lieu of Method 25.
5.10.17 NH_3	OAC 1064a, Conditions 9 and 11 (3/13/14)	Ammonia Periodic Source Testing Ammonia emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 10 ppmvd at 3% O2, hourly average • 2.62 lb/hr Periodic compliance shall be demonstrated by annual source testing.	Compliance shall be determined by the average of three test runs. Testing shall be conducted in accordance with the following test methods unless an alternative method is approved in advance by the NWCAA; 40 CFR 60 Appendix A, Methods 1, 2, 3A and 4, and BAAQMD Method ST-1B. Testing shall be performed while operating the furnace at a firing rate that is as close to its rated capacity as practical. If this is less than 90% of the rated capacity, the reason shall be explained in the test report. An initial source test shall be conducted within 120 days of initial firing of the furnace. Ongoing testing shall be conducted annually within 11 to 13 months of the anniversary of the initial test.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.18 NH_3	OAC 1064a, Conditions 9, 10, and 14f (3/13/14)	<u>Ammonia Emissions Monitoring Plan</u> Ammonia emissions from the #2 Hydrogen SMR Furnace shall not exceed any of the following; • 10 ppmvd at 3% O2, hourly average • 2.62 lb/hr Ongoing compliance shall be demonstrated by operating the SMR Furnace and SCR control system in accordance with the ammonia emissions monitoring plan.	Develop and implement an ammonia emissions monitoring plan. The plan shall establish a predictive relationship between the SMR Furnace operation, SCR parameters and ammonia emissions. The ammonia monitoring plan shall be submitted to the NWCAA at least 30 days prior to startup of the #2 Hydrogen Plant. A final plan shall be submitted to the NWCAA within 90 days after conducting the initial ammonia source test The final plan shall contain source test results and the established relationship between the SMR Furnace operation, SCR parameters and ammonia emissions. The plan shall define QA/QC procedures and corrective actions to be taken when parameter monitoring indicates that an ammonia emission limit der may be exceeded. The plan shall include a requirement to source test the SMR Furnace using BAAQMD Method ST-1B as soon as practical if parameter monitoring indicates that an ammonia limit may be exceeded due to a condition that cannot be corrected within 24 hours. The plan shall be reevaluated after each periodic source test for ammonia and shall be improved and revised accordingly with revisions submitted to the NWCAA within 90 days of source testing. As an alternative to a plan based on predictive monitoring of operating parameters, a plan may be developed and/or revised that is based on direct continuous emissions monitoring of ammonia from the SMR Furnace stack. Maintain records of monitoring under the plan.

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.19 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13) 63.7495 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for new boilers and process heaters upon startup.	Comply with AOP Section 6.5, except that 6.5.3 doesn't apply.
5.10.20 General	OAC 1064a, Condition 13, and 14b (3/13/14)	Determine PSA off-gas composition and #2 Hydrogen SMR Furnace exhaust stack flow rate.	Continuously monitor natural gas and PSA off-gas feed to the main burners and pilots. Sample and analyze PSA off-gas weekly for composition using UOP Laboratory Test Method 539-97 "Gas Analysis by Gas Chromatography". Use composition to determine the heat content, Btu/scf, and the EPA Method 19 F_d factor. An alternative method can be used for F_d with prior approval from NWCAA. Determine stack exhaust flow rate in dry scf/hour, as hourly and 24-hour averages, using EPA Method 19, or alternative method approved by NWCAA. Flow rate shall reflect proportions of natural gas and PSA off-gas in the furnace fuel. • PSA off-gas contribution: use monthly average PSA off-gas F_d. • Natural gas contribution: use natural gas F_d from EPA Method 19 Table 19-2. Maintain the following records: • Weekly PSA off-gas composition • Weekly and monthly PSA off gas F_d results • Hourly stack exhaust flow rate (dry scf/hour) • 24-hour average stack exhaust flow rate (dry scf/hour).

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.21 General	PSD-10-01, Condition 17 (12/13/10)	<u>O&M Manual</u> Within 90 days of start-up of the #2 Hydrogen Plant SMR Furnace, identify operational parameters and practices that will constitute "good combustion practices." These operational parameters and practices shall be included in an O&M manual for the facility. If a failure to follow the requirements of the manuals results in excess emissions, that failure may be considered credible evidence that the event was caused by poor or inadequate operation or maintenance	Maintain an O&M manual for the #2 Hydrogen Plant SMR Furnace. The O&M manual shall be onsite and available for review by Ecology, NWCAA, or the EPA.
5.10.22 General	PSD-10-01, Condition 16 (12/13/10)	<u>General PSD Provision</u> Sampling ports and platforms shall be provided on the #2 Hydrogen Plant SMR Furnace exhaust stack, after any final pollution control device. The ports shall meet the requirements of 40 CFR Appendix A Method 1. Adequate, permanent, and safe access to test ports shall be provided.	*Directly Enforceable* Follow Permit Section 2 - Source Testing
#2 Hydrogen Plant Flare			
5.10.23 VE	OAC 1064a, Condition 16 (3/13/14)	Visible emissions from the #2 Hydrogen Plant Flare shall not exceed five percent (5%) opacity for more than three minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.10.24 General	PSD-10-01, Condition 6 (12/13/10) OAC 1064, Condition 15 (3/13/14)	The #2 Hydrogen Plant Flare pilot fuel and header sweep gas are limited to natural gas.	*Directly Enforceable* Certify annually that only natural gas was used for pilot fuel and header sweep gas in the #2 Hydrogen Plant Flare.
5.10.25 General	PSD-10-01, Condition 7 and 8.4 (12/13/10) OAC 1064, Condition 17 and 18 (3/13/14)	Monitor the gas flow rate to the #2 Hydrogen Plant Flare using a flow meter, and and determine the volumetric flow in standard cubic feet per minute.	Operate a flow meter that monitors the flow rate of gasses combusted in the flare that is compensated for pressure and temperature. Maintain a record of the gas flow rate to the flare in scfm, hourly average.
5.10.26		RESERVED	

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.10.27 General	PSD-10-01, Condition 8.3 (12/13/10)	Record the heat content of gasses flared in the #2 Hydrogen Plant Flare.	Maintain a record of the heat content of gasses combusted in the flare in Btu/scf, hourly average.
5.10.28		RESERVED	
5.10.29 SO_2	40 CFR 60 Subpart Ja 60.103a(h) and 60.107a (a)(3)(iii) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS for Flares</u> The H_2S content of gasses combusted in the #2 Hydrogen Plant Flare shall not exceed; • 162 ppmv, 3-hour rolling average Compliance shall be achieved upon achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.	Certify annually that fuel gas combusted in the #2 Hydrogen Plant Flare is inherently low in sulfur as provided in 60.107a(a)(3).
5.10.30 SO_2	40 CFR 60 Subpart Ja 60.103a(a), (b), (c)(1), (d) & (e) and 60.108a(c)(1) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>Flare Management Plan</u> Implement a flare management plan and optimize management of the refinery fuel gas system to minimize flaring. Conduct a root cause analysis and associated corrective action for flaring events greater than 500,000 scfd above baseline flaring and for events resulting in greater than 500 lb SO_2 in any 24-hour period.	Maintain the following records; • A copy of the flare management plan • Records on discharge events greater than 500 lb SO_2 in any 24-hour period • Records on discharge event in excess of 500,000 scf above baseline in any 24-hour period as required by 60.103a(c) • A root cause analysis and corrective action for each discharge event.
#2 Hydrogen Plant – Equipment in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.10.31 VOC	40 CFR 60 Subpart GGGa 60.590a-60.593a (6/2/08) which references 40 CFR 60 Subpart VVa (6/2/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Equipment Leaks</u> Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21

#2 Hydrogen Plant			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 Hydrogen Plant – Unit Wide			
5.10.32 General	PSD-10-01, Condition 18 (12/13/10)	Access to the source by Ecology, NWCAA, or the EPA shall be permitted upon request. Failure to allow such access is grounds for an enforcement action under the federal Clean Air Act and the Washington State Clean Air Act.	*Directly Enforceable* Follow Permit Section 2 - Inspection and Entry
5.10.33		RESERVED	
5.10.34		RESERVED	

5.11. Calciners and Coke Handling

Table 5-11 #1 and #2 Calciner, #3 Calciner, and Coke Handling

#1 and #2 Calciners			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 and #2 Calciners, Stack #1 (20-70)			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.11.1 VE	OAC 660a Condition 3 (9/18/12) OAC 689a Condition 1.2.5 (9/18/12)	Visual emissions shall not exceed 20% opacity for more than six aggregated minutes in any consecutive 60-minute period (Method 9B).	Conduct an annual visual observation of the stack by a certified opacity observer for no less than 60 consecutive minutes. Maintain a record of each observation. *Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except the applicable compliance method is Ecology Method 9B instead of Ecology Method 9A.

#1 and #2 Calciners			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.11.2 PM & SO_2	OAC 211c Conditions 1(s) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.11.3 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12) NWCAA ACO 05 (10/25/12)	NSPS for Refinery Fuel Gas H_2S in the supplemental fuel gas combusted in the #1 and #2 Calciners shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEM to continuously monitor H_2S in the fuel gas. The CEM shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.11.4 SO_2	OAC 660a Conditions 2 and 4 (9/18/12) OAC 689b Conditions 1.2.2, 2.2.2, & 3.2.2, (9/18/12)	SO_2 emissions from the #1 and #2 Calciner stack shall not exceed any of the following; • 35 ppmvd at 7% O_2, calendar day average • 175 tons, consecutive 12-month rolling	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the #1 and #2 Calciner Stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Include in the monthly report; • SO_2 ppmvd at 7% O_2, highest calendar day average • SO_2 tons, consecutive 12-month rolling total.
5.11.5 NOx	OAC 689b Conditions 1.2.1, 2.2.1 & 3.2.1 (9/18/12)	NOx emissions from the #1 and #2 Calciner stack shall not exceed any of the following; • 325 ppmvd at 7% O_2, calendar day average • 509 tons, consecutive 12-month rolling	Operate a CEMS to continuously monitor NOx & O_2 in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Include in monthly report; • NOx ppmvd @ 7% O_2, monthly highest calendar day average *Directly Enforceable* Maintain a record of the NOx tons, consecutive 12-month rolling total.

#1 and #2 Calciners			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.11.6 PM_{10}	OAC 689b Condition 1.2.3 and 2.2.3 (9/18/12) 40 CFR 64 CAM (10/22/97)	PM_{10} emissions from the #1 and #2 Calciner stack shall not exceed; • 34 tons, consecutive 12-month rolling Operate at least two WESP cells at all times with a secondary voltage greater than 35KV DC and a secondary current greater than 300 milliamps DC. Operate the WESP in accordance with the #1 and #2 Calciner Monitoring Plan dated October 7, 1999. After each maintenance turnaround determine the integrity of the WESP by running an air load test on the WESP and compare variance from testing conducted during original construction.	Maintain a record of: • The WESP system operating configuration (which WESP cells are in operation) • Operational mode (normal, startup, shutdown, hot standby) • Predicted (or measured) actual WESP stack flow (acfm) • Secondary voltages and secondary currents for each operating WESP cell (kV and milliamps) • Air load testing results of the WESP following each turnaround. All required WESP operating data shall be recorded at least once every 10 minutes. Report monthly that the WESP was operated at all times with least two cells with a secondary voltage greater than 35KV DC and a secondary current greater than 300 milliamps DC. *Directly Enforceable* Maintain a record of the PM_{10} tons, consecutive 12-month rolling total.

#1 and #2 Calciners			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.11.7 H_2SO_4	OAC 660a Condition 1 (9/18/12) OAC 689b Conditions 1.2.4 and 2.2.4 (9/18/12) 40 CFR 64 CAM (10/22/97)	H_2SO_4 emissions from the #1 and #2 Calciner stack shall not exceed; • 15 lb/hour • 62 mg/dscf at 7% O_2, calendar day average • 39 tons, consecutive 12-month rolling Operate the WESP in accordance with the #1 and #2 Calciner Monitoring Plan dated October 7, 1999. After each maintenance turnaround determine the integrity of the WESP by running an air load test on the WESP and compare variance from testing conducted during original construction.	Conduct an annual source test in accordance with NWCAA 367 and NWCAA Appendix A, and 40 CFR 60 Appendix A Methods 1, 2, 4 and 8, CTM-13B, or other test method approved in advance by the NWCAA. Maintain records of: • The WESP system operating configuration (which WESP cells are in operation) • Operational mode (normal, startup, shutdown, hot standby) • Predicted (or measured) actual WESP stack flow (acfm) • Air load testing results of the WESP following each turnaround. All required WESP operating data shall be recorded at least once every 10 minutes. *Directly Enforceable* Maintain a record of the H_2SO_4 tons, consecutive 12-month rolling total.

#3 Calciner			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#3 Calciner, Stack #2 (20-71)			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.11.8 VE	OAC 985a, Condition 3, (10/27/08) PSD-89-2, Condition 2(g) (1/30/89)	Visual emissions shall not exceed an average of 20% opacity in any consecutive six-minute period (Method 9).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except that the applicable compliance method is EPA Method 9 instead of Ecology Method 9A.
5.11.9 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii), and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12) NWCAA ACO 05 (10/25/12)	<u>NSPS for Refinery Fuel Gas</u> H_2S in the supplemental fuel gas combusted in the #3 Calciner shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.11.10 SO_2	PSD-89-2, Condition 2 and 4 (a) & (c) (1/30/89)	SO_2 emissions from the #3 Calciner stack shall not exceed any of the following; • 160 ppmvd @ 7% O_2, calendar day ave. • 504 tons, consecutive 12-month rolling	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the Calciner Stack #2 in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. *Directly Enforceable* Maintain monthly record of SO_2 cumulative 12-month rolling tons.
5.11.11 SO_2	PSD-89-2, Condition 2 (f) (1/30/89)	SO_2 scrubber control efficiency shall be no less than 90%.	*Directly Enforceable* Conduct an annual source test of scrubber inlet and scrubber outlet to quantify SO_2 concentrations and calculate removal efficiency using 40 CFR 60 Appendix A Method 6C or CTM 13, 13A, or 13B.

#3 Calciner			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.11.12 NOx	PSD-89-2, Condition 2 (e) and 4 (1/30/89)	NOx emissions from the #3 Calciner stack shall not exceed; • 509 tons, consecutive 12-month rolling	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the Calciner Stack #2 in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F, except that NOx span drift may not exceed 5.0% of full scale. *Directly Enforceable* Maintain monthly record of NOx cumulative 12-month rolling tons.
5.11.13 PM/ PM_{10}	OAC 985a, Conditions 2, 5, 6, 7, 8, 9 & 10 (10/27/08) PSD-89-2, Condition 2 (b) & (d) (1/30/89) 40 CFR 64 CAM (10/22/97)	PM/PM_{10} emissions from the from the #3 Calciner stack shall not exceed any of the following; • 0.010 gr/dscf at 7% O_2, 60-minute rolling ave. • 26 tons, consecutive 12-month rolling Follow the conditions for demonstrating compliance in accordance with the current Ecology/NWCAA Approved Calciner Hearth #3 Wet Electrostatic Precipitator (#2 WESP) Monitoring Plan. Operate at least two WESP cells at all times with a secondary voltage greater than 35KV DC and a secondary current greater than 300 milliamps DC. The WESP shall be operated with the maximum available Specific Collection Area (SCA). In no case shall the WESP be operated with a SCA of less than 126 ft^2/1,000 acfm, 60-minute rolling average. $SCA = \frac{WESP\ collection\ area\ \text{in}\ ft^2}{Stack\ flow\ in\ 1000\ acfm}$ Where the WESP collection area does not include cells that are operating in flush mode and the stack flow is predicted from the calcined coke production rate. After each maintenance turnaround determine the integrity of the WESP by running an air load test on the WESP and compare variance from testing conducted during original construction.	Conduct annual source testing within 13 months of the previous test. Testing shall be conducted in accordance with NWCAA Section 367, NWCAA Appendix A and 40 CFR 60 Appendix A Test Methods 5 and 202. Maintain records of: • The WESP system operating configuration (which WESP cells are in operation) • Operational mode (normal, startup, shutdown, hot standby) • Predicted (or measured) actual WESP stack flow (acfm) • Calcined coke production rate (tons/hour) • Specific Collection Area (ft^2/1,000 acfm) • Secondary voltages and secondary currents for each operating WESP cell (kV and milliamps) • Air load testing results of the WESP following each turnaround. All required WESP operating data shall be recorded at least once every 10 minutes. *Directly Enforceable* Maintain a record of the PM/PM_{10} tons, consecutive 12-month rolling total.

#3 Calciner			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.11.14 H_2SO_4	OAC 985a, Condition 1 and 10, (10/27/08) PSD-95-01 Amendment 1 Conditions 1, 2 & 4 (1/23/09) 40 CFR 64 CAM (10/22/97)	Sulfuric acid mist (H_2SO_4) emissions from the #3 Calciner stack shall not exceed any of the following; • 18.3 lb/hr, 60-minute rolling average • 50 mg/dscm, 60-minute rolling average Follow the conditions for demonstrating compliance in accordance with the current Ecology/NWCAA Approved Calciner Hearth #3 Wet Electrostatic Precipitator (#2 WESP) Monitoring Plan. Operate at least two WESP cells at all times with a secondary voltage greater than 35KV DC and a secondary current greater than 300 milliamps DC. The WESP shall be operated with the maximum available Specific Collection Area (SCA). In no case shall the WESP be operated with a SCA of less than 126 ft^2/1,000 acfm, 60-minute rolling average. $SCA = \frac{WESP\ collection\ area \text{ in } ft^2}{Stack\ flow\ in\ 1000\ acfm}$ Where the WESP collection area does not include cells that are operating in flush mode and the stack flow is predicted from the calcined coke production rate. After each maintenance turnaround determine the integrity of the WESP by running an air load test on the WESP and compare variance from testing conducted during original construction.	Conduct annual source testing within 13 months of the previous test. Testing shall be conducted in accordance with NWCAA Section 367, NWCAA Appendix A, and 40 CFR 60 Appendix A Test Method 8, CTM-13B or other method approved in advance by the NWCAA. Maintain records of: • The WESP system operating configuration (which WESP cells are in operation) • Operational mode (normal, startup, shutdown, hot standby) • Predicted (or measured) actual WESP stack flow (acfm) • Calcined coke production rate (tons/hour) • Specific Collection Area (ft2/1,000 acfm) • Secondary voltages and secondary currents for each operating WESP cell (kV and milliamps) • Air load testing results of the WESP following each turnaround. All required WESP operating data shall be recorded at least once every 10 minutes.

Coke Handling – Railcar Loading Baghouses, Silos, and Transfer Systems			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.11.15 VE	PSD-89-2, Condition 3 (1/30/89)	Visual emissions from the new silo, the railcar load out and the new hearth transfer tower shall not exceed 20% opacity in any consecutive six-minute period (Method 9).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except that the applicable compliance method is EPA Method 9 instead of Ecology Method 9A.
5.11.16 PM	PSD-89-2, Condition 3 (1/30/89)	Particulate emissions from the new silo, the railcar load out and the new hearth transfer tower shall not exceed any of the following; • 0.01 gr/dscf • 21 tons, consecutive 12-month rolling	*Directly Enforceable* Maintain monthly record of PM_{10} cumulative 12-month rolling tons.

5.12. Boilers and Cooling Towers

Table 5-12 #4, #5, #6 and #7 Boilers, #1 and #2 Cooling Towers

#4 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#4 Boiler (30-1604)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities			
5.12.1 VE	OAC 351e Condition 1 (5/10/10)	Visual emissions from the #4 Boiler shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.

#4 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.2 SO_2	OAC 351e Condition 2 (5/10/10) 40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii) and 60.106(e) (6/24/08) 40 CFR 60 Subpart Db 60.40b(c) (2/16/12) NWCAA 104.2 (8/9/12) NWCAA ACO 05 (10/25/12)	<u>BACT and NSPS for Refinery Fuel Gas & Industrial Boilers</u> H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.12.3 NOx	OAC 351e, Conditions 3, 5 and 9 (5/10/10)	NOx emissions from the #4 Boiler shall not exceed; • 33 ppmvd @ 3% O2 , 24-hour rolling average If the concentration based limit is exceeded, the following mass emission rate limit shall be used to demonstrate compliance; • 8.63 lb/hour, 24-hour rolling average	Operate a CEMs to continuously monitor NOx & O_2 concentrations in the #4 Boiler stack in accordance with NWCAA 367, NWCAA Appendix A, 40 CFR 60 Subpart Db and 40 CFR 60 Appendices B and F. If the concentration based NOx limit is exceeded, compliance with the alternative mass emission rate limit shall be determined by using calculations detailed in Method 19, and using appropriate F-factors calculated based on a fuel composition analysis conducted within 14 days of the event. Include calendar month NOx in tons in monthly emission reports.

#4 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.4 NOx	40 CFR 60 Subpart Db 60.44b(a)(1)(ii) and (i), 60.46b(c) & (e) 60.48b(b)-(f) and 60.49b(g) (2/16/12) NWCAA 104.2 (8/9/12)	NSPS for Industrial Boilers NOx emissions from the boiler shall not exceed; • 0.2 lb/MMBtu, 30-day rolling average of most recent consecutive steam operating days.	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the #4 Boiler stack in accordance with NWCAA 367, NWCAA Appendix A, 40 CFR 60 Subpart Db and 40 CFR 60 Appendices B and F. Span value for the NOx CEM shall be 500 ppm, or in accordance 40 CFR 75 Appendix A. An alternative span value is acceptable provided that the span value is set high enough to ensure that all emissions from the unit can be quantified. Maintain the following records for each steam generating day. • Average hourly NOx emission rates expressed as NO_2 in lb/MMBtu heat input • Thirty day rolling average NOx in lb/MMBtu heat input • Identification of "F" factor used for calculations • Identification of times pollutant concentrations exceeded span of monitoring system • Description of modifications to CEMS that would affect ability to comply with Performance Specification 2 or 3.
5.12.5 CO	OAC 351e, Conditions 6, and 7 (5/10/10)	CO emissions from the #4 Boiler shall not exceed; • 15.9 lb/hour	Conduct source testing at least once every 12 months. Source testing shall be conducted at no less than 90% load and in accordance with 40 CFR 60 Appendix A, Methods 1, 2, 3A, 4 and 10, NWCAA Section 367 and NWCAA Appendix A. *Directly Enforceable* 40 CFR 60 Appendix A, Method 10B may be used in lieu of Method 10.

#4 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.6 General	OAC 351e Condition 8 (5/10/10)	Operation & Maintenance Develop and maintain an operation & maintenance (O & M) manual for all equipment that may affect pollution emissions to the atmosphere. Excess emissions that result from failing to follow the O & M manual may be considered proof that the equipment was not properly operated and maintained.	Maintain an operation & maintenance manual for the #4 Boiler.
5.12.7 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

#5 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#5 Boiler (30-1606)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.12.8 General	OAC 814b, Condition 1 (7/9/12) PSD-02-04 Amendment 1, Condition 1 & 7 (4/20/05)	The #5 Boiler shall combust only natural gas and/or refinery fuel gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted in the boiler.
5.12.9 General	PSD-02-04 Amendment 1, Condition 10 (4/20/05)	Facility shall identify “good combustion practices” for the #5 Boiler. These operational practices and parameters shall be included in the O&M manual for the facility.	O&M manual shall be maintained and followed and be available onsite for review.

#5 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.12.10 General	PSD-02-04 Amendment 1, Condition 8 (4/20/05)	General PSD Provision Sampling ports and platforms shall be provided on each stack, after any final pollution control device. The ports shall meet the requirements of 40 CFR 60 Appendix A, Method 1. Adequate, permanent, and safe access to test ports shall be provided.	*Directly Enforceable* Follow Permit Section 2 – Source Testing
5.12.11 General	PSD-02-04 Amendment 1, Condition 11 (4/20/05)	General PSD Provision Access to the source by the Ecology, NWCAA, or the EPA shall be permitted upon request for the purposes of compliance assurance inspections. Failure to allow such access is grounds for an enforcement action under the federal Clean Air Act or the Washington State Clean Air Act.	*Directly Enforceable* Follow Permit Section 2 – Inspection and Entry
5.12.12 VE	OAC 814b, Condition 2 (7/9/12)	Visual emissions from the #5 Boiler shall not exceed an average of 5% opacity in any consecutive six-minute period (Method 9).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit, except that the applicable compliance method is EPA Method 9 instead of Ecology Method 9A.
5.12.13 SO_2	OAC 814b, Condition 3 (7/9/12)	BACT for Fuel Gas Fuel gas combusted in the #5 Boiler shall not exceed any of the following; • 162 ppm H_2S, 3-hour rolling average • 50 ppm H_2S, 24-hour rolling average	Operate a CEMS to continuously monitor H2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15
5.12.14 SO_2	40 CFR 60 Subpart J 60.104 (6/24/08) 40 CFR 60 Subpart Db 60.40b(c) (2/16/12) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas & Industrial Boilers H_2S in the fuel gas shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	

#5 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.15 NOx	40 CFR 60 Subpart Db 60.44b(a)(1)(ii) and (i), 60.46b(c) & (e) 60.48b(b)-(f) and 60.49b(g) (2/16/12) NWCAA 104.2 (8/9/12)	NSPS for Industrial Boilers NOx emissions from the #5 Boiler shall not exceed; • 0.2 lb/MMBtu, 30-day rolling average of most recent consecutive steam operating days.	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the #4 Boiler stack in accordance with NWCAA 367, NWCAA Appendix A, 40 CFR 60 Subpart Db and 40 CFR 60 Appendices B and F. Span value for the NOx CEM shall be 500 ppm, or in accordance with 40 CFR 75 Appendix A. An alternative span value is acceptable provided that the span value is set high enough to ensure that all emissions from the unit can be quantified. Maintain the following records for each steam generating day. • Average hourly NOx emission rates expressed as NO_2 in lb/MMBtu heat input • Thirty day rolling average NOx in lb/MMBtu heat input • Identification of "F" factor used for calculations • Identification of times pollutant concentrations exceeded span of monitoring system • Description of modifications to CEM that would affect ability to comply with Performance Specification 2 or 3.
5.12.16 NOx	PSD-02-04 Amendment 1, Conditions 3 and 7 (4/20/05)	NOx emissions from the #5 Boiler shall not exceed; • 10.1 lb/hr, calendar day average	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the #5 Boiler stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Include maximum monthly NOx lb/hr calendar day average in monthly report.

#5 Boiler			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.17 CO	PSD-02-04 Amendment 1, Conditions 5, 6 and 7 (4/20/05)	CO emissions from the #5 Boiler shall not exceed; • 18.1 lb/hr, calendar day average Except that during startup conditions: • CO shall not exceed 50 lb/hr, averaged over the startup period • CO emissions during startup shall be monitored and included in the emission inventory for the year • Startup periods are limited to 12 hours, except, if refractory work has been done during a maintenance shutdown, the period is limited to 30 hours • Startups claiming use of these provisions is limited to six per year.	Operate a CEMS to continuously monitor CO & O_2 concentrations in the #5 Boiler stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Conduct annual source testing for CO while operating the boiler at or above 90% of the boiler's maximum load. Testing shall be done using 40 CFR 60 Appendix A, Methods 10, 10A or 10B, or an equivalent method that is approved in advance by Ecology. Testing shall be conducted in accordance with NWCAA Section 367 and NWCAA Appendix A. Report the maximum monthly CO lb/hr calendar day average for the #5 Boiler in the monthly report.
5.12.18 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#6 Boiler (30-1607) and #7 Boiler (30-1608)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.12.19 General	OAC 1001c Condition 1, (5/20/13) PSD-07-01 Amendment 1, Condition 1 (12/11/09)	The #6 and #7 Boilers shall burn only natural gas and/or refinery fuel gas	*Directly Enforceable* Certify annually that only approved fuels were combusted in the boilers.

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.20 General	PSD-07-01 Amendment 1, Condition 17 (12/11/09)	<u>Operation and Maintenance</u> Identify operational parameters and practices that will constitute "good combustion practices" for the #6 and #7 Boilers. These operational parameters and practices shall be included in an O&M manual. If a failure to follow the O&M manual results in excess emissions that failure may be considered credible evidence that the event was caused by poor or inadequate operation or maintenance.	Maintain an O&M manual for the boilers.
5.12.21		RESERVED	
5.12.22		RESERVED	
5.12.23 VE	OAC 1001c Condition 2 (5/20/13)	Visual emissions from each boiler shall not exceed 5% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.12.24 PM_{10}	PSD-07-01 Amendment 1, Conditions 4, 8.3, and 11 (12/11/09)	PM_{10} emissions from each of the #6 and #7 Boilers shall not exceed; • 3.4 lb/hr, calendar day average	Conduct an annual source test using 40 CFR 60 Appendix A Method 5 (front half) and 40 CFR 51 Appendix M Method 202 (back half) or equivalent test method approved in advance by Ecology. Testing shall be conducted in accordance with NWCAA Section 367 and NWCAA Appendix A. After 3 consecutive years of annual tests on each boiler stack have demonstrated compliance, testing of each boiler stack may be reduced to once every 5 years. If a test demonstrates noncompliance, a retest along with resumption of annual testing is required for the unit until 3 consecutive years demonstrate compliance.

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.25 SO_2	PSD-07-01 Amendment 1, Conditions 3, 10, 12 and 14 (12/11/09)	SO_2 emissions from each of the #6 and #7 Boilers shall not exceed any of the following: • 39.3 lb/hr, 3-hour rolling average • 21.4 lb/hr, calendar day average • 59.6 ton/yr, 12-month rolling [27]	Once per calendar month sample the fuel gas for total sulfur using ASTM Test Method D-5504, or another method approved by Ecology. A minimum of 3 samples, taken at least an hour apart, shall be run per test. And; Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11, 15, 15A 16 or equivalent method approved in advance by Ecology shall be used for RATAs. Or, as an alternative to monthly total sulfur analysis and operating an H_2S CEMS; Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the #6 and #7 Boiler stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Subpart J and Appendices B and F.
5.12.26		RESERVED	
5.12.27 SO_2	40 CFR 60 Subpart Ja 60.102a(g)(1)(ii) and 60.107a(a)(2) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> The H_2S content of the fuel gas combusted in the boilers shall not exceed any of the following; • 162 ppmv, 3-hour rolling average • 60 ppmv, 365-day rolling average Compliance shall be achieved upon achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.	Operate a CEMS to continuously monitor the H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60.107a(a)(2), NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11, 15 or 15A

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.28 NOx	40 CFR 60 Subpart Db 60.44b(a)(1)(ii) and (i), 60.46b(c) & (e) 60.48b(b)-(f) and 60.49b(g) (2/16/12) NWCAA 104.2 (8/9/12)	NSPS for Industrial Boilers NOx emissions from the #6 and #7 Boilers shall not exceed; • 0.2 lb/MMBtu, 30-day rolling average of most recent consecutive steam operating days.	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the #6 and #7 Boiler stacks in accordance with NWCAA 367, NWCAA Appendix A, 40 CFR 60 Subpart Db and 40 CFR 60 Appendices B and F. Span value for the NOx CEM shall be 500 ppm, or in accordance with 40 CFR 75 Appendix A. An alternative span value is acceptable provided that the span value is set high enough to ensure that all emissions from the unit can be quantified. Maintain the following records for each steam generating day. • Average hourly NOx emission rates expressed as NO_2 in lb/MMBtu heat input • Thirty day rolling average NOx in lb/MMBtu heat input • Identification of "F" factor used for calculations • Identification of times pollutant concentrations exceeded span of monitoring system • Description of modifications to CEM that would affect ability to comply with Performance Specification 2 or 3.
5.12.29 NOx	OAC 1001c Conditions 3, 4, and 5 (5/20/13	NOx emissions from each of the #6 and #7 Boilers shall not exceed; During periods of normal operation, defined as firing the boiler above 18 MMBtu HHV/hour (5% capacity), • 4.0 lb/hr based on a one-hour average During periods of hot standby, defined as firing the boiler below 18 MMBtu HHV/hour (5% capacity), • 2.0 lb/hr based on a one-hour average	Operate a CEMS to continuously monitor NOx & O_2 concentrations in the #6 and #7 Boiler stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Continuously record the HHV heat input to each boiler on the basis of hourly averages.
5.12.30		RESERVED	

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.31 NH_3	OAC 1001c Conditions 6 and 7 (5/20/13)	Ammonia emissions from the #6 and #7 Boilers shall not exceed; • 10.0 ppmvd at 3% O_2, 24-hour rolling average	Compliance shall be determined by Bay Area Air Quality Management District Source Test Procedure #1B (BAAQMD ST-1B) by the average of three, 60-minute test runs at three firing rates or an alternative method approved in advance by the NWCAA. The three firing rates will be in the ranges of 20-30%, 45-55% and 90% or greater load of the boiler. If the high range firing rate is less than 90% of the rated capacity, the reason shall be explained in the test report. Compliance tests shall be conducted annually. The tests shall be conducted no later than 13 months from the anniversary of the previous test. Ammonia feed rate, NOx emissions, fuel consumption, oxygen and temperature shall be monitored and recorded during the tests. Maintain an Ammonia Emissions Monitoring Plan which establishes a relationship between boiler and SCR operatating parameters and ammonia emission, and which contains source test results. This plan shall define QA/QC procedures and corrective actions when parameter monitoring indicates the 10.0 ppmvd at 3% O_2, 24-hour rolling average ammonia limit may be exceeded. The plan will be assessed based on annual test results and amended accordingly.

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.12.32 CO	PSD-07-01 Amendment 1, Conditions 2, 9, 12, and 13 (12/11/09)	CO emissions from each of the #6 and #7 Boilers shall not exceed; • During normal operations: 13.3 lb/hr, calendar day average • During startup periods; 50 lb/hr, averaged over the startup period. A startup period is defined as starting the boiler from an inactive cold state, and ending when operating above 91 MMBtu HHV/hour, or after 8 hours of operation, whichever is sooner.	Operate a CEMS to continuously monitor CO & O_2 concentrations in the #6 and #7 Boiler stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Include CO emissions from startup in annual emissions report.
5.12.33 HAP	40 CFR 63 Subpart DDDDD 63.7485 (1/31/13)	Major Source Boiler MACT Comply with 40 CFR 63 Subpart DDDDD for boilers and process heaters at major sources of HAPs by January 31, 2016.	Comply with Section 6.5.

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.12.34 General	PSD-07-01 Amendment 1, Condition 14 (12/11/09)	Recordkeeping and reporting for the #6 & 7 Boilers	Report monthly; • Monthly maximum of CO, SO_2, and PM_{10} emissions from each boiler • Monthly total sulfur analysis of fuel gas • SO_2 tons, 12 month rolling both boiler combined • Periods during which required data was not collected and reason it was not collected. • Time, duration, magnitude, probable cause and corrective actions related to excess emission events. Maintain the following records; • Time, duration, magnitude, probable cause and corrective actions related to excess emission events. • Results of any compliance tests • Results of any CEM RATAs
5.12.35 General	PSD-07-01 Amendment 1, Condition 16 (12/11/09)	General PSD Provision Sampling ports and platforms shall be provided on the #6 and #7 Boiler stacks, after any final pollution control device. The ports shall meet the requirements of 40 CFR 60 Appendix A, Method 1. Adequate, permanent, and safe access to test ports shall be provided.	*Directly Enforceable* Follow Permit Section 2 – Source Testing
5.12.36 General	PSD-07-01 Amendment 1, Condition 18 (12/11/09)	General PSD Provision Access to the source by the Ecology, NWCAA, or EPA shall be permitted upon request. Failure to allow such access is grounds for an enforcement action under the federal Clean Air Act and Washington State Clean Air Act.	*Directly Enforceable* Follow Permit Section 2 – Inspection and Entry

#6 and #7 Boilers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#6 and #7 Boilers Project - Components in VOC/HAP Service			
5.12.37 VOC/ HAP	OAC 1001c Condition 8 (5/20/13)	BACT for Equipment Leaks The following provisions shall be in effect for new valves associated with the #6 and #7 Boiler project that have the potential to leak VOC or HAP. • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days.	Conduct a LDAR program in accordance with AOP Section 6.3, except that; • The leak definition for block valves and control valves is 500 ppm. • Instrument monitoring shall occur no less than quarterly. • Repair and remonitor leaks greater than the leak definition in the OAC, but less than the regulatory leak definition of applicable portions of 40 CFR 63 Subpart CC, within 30 days. Follow 40 CFR 60 Appendix A Method 21

Cooling Towers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#1 Cooling Tower (30)			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.12.38 HAP	40 CFR 63 Subpart CC 63.654(c)–(g), and 63.655 (i)(4) (6/30/12)	MACT for Heat Exchangers Conduct monthly sampling for HAP on the cooling water using the Modified El Paso Method. If a leak is detected ≥ 6.2 ppmv HAP, repair within 45 days unless a delay of repair is utilized.	Maintain the following records. • Results of monthly sampling • Date of repair when leaks are identified. • Reasons for each delay of repair when utilized

Cooling Towers			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
#2 Cooling Tower (24)			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.12.39 VOC	OAC 289a Condition 1 (4/12/12)	A hydrocarbon monitor shall be installed and operated on the #2 Cooling Tower in accordance with the manufacturer's specifications.	*Directly Enforceable* Maintain a record of the manufacture's operation and maintenance manual, and any maintenance and repair activities performed on the hydrocarbon monitor.
5.12.40 HAP	40 CFR 63 Subpart CC 63.654(c)–(g), and 63.655 (i)(4) (6/30/12)	MACT for Heat Exchangers Conduct monthly sampling for HAPs on the cooling water using the Modified El Paso Method. If a leak is detected ≥ 6.2 ppmv HAP, repair within 45 days unless a delay of repair is utilized	Maintain the following records. • Results of monthly sampling • Date of repair when leaks are identified. • Reasons for each delay of repair when utilized

5.13. Flares and Flare Gas Recovery

Table 5-13 High Pressure Flare, Low Pressure Flare and Flare Gas Recovery

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
High and Low Pressure Flares (28-1803 and 28-1804)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.13.1 PM & SO_2	OAC 211c Conditions 1(q), 1(r) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
5.13.2 SO_2	40 CFR 60 Subpart Ja 60.103a(f) & (h) and 60.107a(e)(2) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS H_2S limit for Flares</u> The H_2S content of gasses combusted in the flare shall not exceed; • 162 ppmv, 3-hour rolling average Except that process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit. Compliance shall be achieved by no later than November 11, 2015.	Operate a CEMS to continuously monitor the H_2S content of gasses combusted in the High and Low Pressure Flares. The CEMS shall meet the requirements of 40 CFR 60.107a(e)(2), NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11, 15 or 15A
5.13.3 SO_2	40 CFR 60 Subpart Ja 60.107a(f) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS Flow Monitoring for Flares</u> Compliance is required by no later than November 11, 2015.	Operate a continuous parameter monitoring system (CPMS) to measure and record the flow rate of gas discharged to the flare. The CPMS shall be installed, operated, calibrated and maintained in accordance with 60.107a (f)(1).
5.13.4 SO_2	40 CFR 60 Subpart Ja 60.103a(a), (b), (c)(1), (d) & (e) and 60.108a(c)(1) & (6) (6/24/08 as amended 9/12/12) NWCAA 104.2 (8/9/12)	<u>NSPS Flare Management Plan</u> Develop and implement a flare management plan and optimize management of the refinery fuel gas system to minimize flaring. Conduct a root cause analysis and associated corrective action for flaring events greater than 500,000 scfd above baseline flaring and for events resulting in greater than 500 lb SO_2 in any 24-hour period. Compliance shall be achieved by no later than November 11, 2015.	Submit flare management plan to the administrator. Maintain the following records; • A copy of the flare management plan • Records on discharge events greater than 500 lb SO_2 in any 24-hour period • Records on discharge event in excess of 500,000 scf above baseline in any 24-hour period as required by 60.103a(c) • A root cause analysis and corrective action for each discharge event.

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
5.13.5 HAP	40 CFR 63 Subpart A 63.11(b)(3) (10/17/00) 40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV 60.485(g)(2) and 60.482 (11/16/07) NWCAA 104.2 (8/9/12)	Refinery MACT I – Flares Controlling Equipment Leaks Flares shall be operated at all times when emissions may be vented to them.	Thermocouples, or any other equivalent device, to detect the presence of a flame, shall continuously monitor each flare for the presence of a flame and the data recorded electronically in no less than 15-minute averages. Maintain hourly records of whether the monitor was continuously operating and whether a pilot flame was continuously present. Record and report the presence of a flame at the pilot light over the period of compliance determination - per Notification of Compliance report described in 40 CFR 63 Subpart CC 63.655 Record the times and durations of all periods when all pilot flames for a flare are absent or the all monitors are is not operating.
5.13.6 HAP	40 CFR 63 Subpart A 63.11(b)(1) (10/17/00) 40 CFR 63 Subpart CC 63.643(a) (8/15/95) 63.644(a), 63.645(a) and 63.655(g)(6)(B) (10/28/09) which references 40 CFR 63 Subpart G 63.116 (1/22/01) 40 CFR 63 Subpart CC 63.648 (8/18/98) which references 4 0 CFR 60 Subpart VV 60.482-10 (12/14/00) which references 60.18(d) (10/17/00) NWCAA 104.2 (8/9/12)	Refinery MACT I – Flares Controlling Group 1 Process Vents Sources using flares to comply with Refinery MACT equipment leak provisions shall monitor flares to assure they are maintained and operated properly to reduce the emissions of organic HAPS from miscellaneous process vents by 98%w or to 20 ppmv. Monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures. Operate flares consistent with required operating parameters and/or procedures.	Thermocouples, or any other equivalent device, to detect the presence of a flame, shall continuously monitor each flare for the presence of a flame and the data recorded electronically in no less than 15-minute averages. Maintain hourly records of whether the monitor was continuously operating and whether a pilot flame was continuously present. Record and report the presence of a flame at the pilot light over the period of compliance determination - per Notification of Compliance report described in 40 CFR 63 Subpart CC 63.655 Record the times and durations of all periods when all pilot flames for a flare are absent or the all monitors are is not operating.

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
5.13.7 VE	40 CFR 60 Subpart A 63.11(b)(4) (10/17/00) 40 CFR 63 Subpart CC 63.642(d) (10/28/09) and 63.648 (8/18/98) which references 40 CFR 60 Subpart VV 60.485(g)(1) (11/16/07) NWCAA 104.2 (8/9/12)	Refinery MACT I – Flare Visual Emissions Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours (EPA Method 22).	No specific MR&R requirements
5.13.8 General	40 CFR 63 Subpart A 63.11(b)(7)(iii) (10/17/00) 40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV 60.485(g)(3) (11/16/07) NWCAA 104.2 (8/9/12)	Refinery MACT – Flare Exit Velocity The exit velocity of the flares shall not exceed the lesser of Vmax, as determined in the method specified in 63.11(b)(7)(iii), but less than 122 m/sec (400 ft/sec) are allowed.	Maintain record of determination.
5.13.9 General	40 CFR 63 Subpart A 63.11(b)(6) (10/17/00) 40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV 60.485(g)(4) (11/16/07) NWCAA 104.2 (8/9/12)	Refinery MACT – Flared Gas Heating Value The net heating value of the gas being combusted shall be 11.2 MJ/scm (300 Btu/scf) or greater for steam or air-assisted flares. The net heating value shall be calculated by the equation in 63.11(b)(6), which is identical to the equations in 60.18(f)(3) and 60.485(g)(4)	Maintain record of determination.

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
5.13.10 General	40 CFR 63 Subpart CC 63.655(e)-(h) (6/30/10) NWCAA 104.2 (8/9/12)	Recordkeeping and Reporting for Flares Conduct reporting and recordkeeping in accordance with the provisions of Refinery MACT.	Report exceedances/deviation on periodic reports. These include operation of a flare in the absence of a pilot flame, an exceedance of the opacity standard and anytime that the flare does not meet the general control requirements of 63.11(b). Record and report in a Periodic Report each occurrence when the flare does not meet the general control device requirements specified in 40 CFR 63.11(b) and shall include: Identification of the flare that does not meet the general requirements specified in 40 CFR 63.11(b), and reasons why the flare did not meet these requirements. Periods that constitute a startup, shutdown, or malfunction, as those terms are defined in 40 CFR 63 Subpart CC 63.641 and 63.2, are exempt from reporting. Please note that the recording requirements are not exempted.
Flare Gas Recovery and Associated Piping Systems - Equipment in VOC Service			
5.13.11 VOC	NWCAA 580.8 (03/13/97) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	NWCAA 580 for Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

Flares and Flare Gas Recovery			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
Flare Gas Recovery and Associated Piping Systems – Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.13.12 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.14. Sulfur Recovery Complex

Table 5-14 Incinerator, #2 Tail Gas Unit, Sulfur Pit and Storage, Sour Water Unit

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Entire Sulfur Recovery Complex			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.14.1 SO_2	OAC 890c, Condition 5 (7/21/11) [28]	Total SO_2 emitted from the Sulfur Recovery Complex shall not exceed 99 tons during any consecutive 12-month rolling period.	Include the consecutive 12-month rolling tons of SO_2 emitted from the Sulfur Recovery Complex in monthly emission reports.

[28] BART Order #7836 Rev. 1, Condition 4.1.1.4 (8/16/13)

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.14.2 General	OAC 890c, Condition 12 (7/21/11)	The elemental sulfur production rate of the Sulfur Recovery Unit shall not exceed 270 long tons per day based on a consecutive 12-month rolling average.	The most recent 12-month rolling average shall be reported to the NWCAA on each monthly emissions report.
5.14.3 General	OAC 890c, Condition 11 (7/21/11) which references 40 CFR 63 Subpart UUU 63.1569 (4/11/02) NWCAA 104.2 (8/9/12)	Any lines that allow a bypass of sulfur bearing compounds normally emitted from the Incinerator and #2 TGU stacks shall be monitored for the presence of flow.	Report any instances of flow bypass in accordance with NWCAA Section 340 or 341. These reportable events shall be considered a startup, shutdown or upset condition.
5.14.4 General	OAC 890c, Condition 7 (7/21/11) 40 CFR Subpart UUU 63.1574(f) (2/9/05) NWCAA 104.2 (8/9/12)	Prepare an Operation, Maintenance and Monitoring Plan (OMMP) according to the requirements of 40 CFR Subpart UUU 63.1574(f) and operate at all times according to the procedures in the plan.	Submit any revisions to OMMP to the NWCAA for approval.
5.14.5 HAP	40 CFR Subpart UUU 63.1569(c)(1) (2/9/05) which references 40 CFR 632 Subpart A 63.11(b) and Tables 36 and 39 to Subpart UUU (2/9/05) NWCAA 104.2 (8/9/12)	<u>Refinery MACT II – Bypass Lines</u> Demonstrate continuous compliance with the work practice standards by using: Option 2: A car-seal or lock to ensure that bypass valves are closed and cannot be reopened without disabling the safe device.	Conduct monthly visual inspections of the car-seals or locks to ensure there is no flow in the bypass lines. Maintain records of bypass line valve inspections to assure valve is maintained in the closed position and whether flow is present in the line.
5.14.6 HAP	40 CFR Subpart UUU 63.1570(d), (f) and (g) (4/20/06 NWCAA 104.2 (8/9/12)	Develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 63.6(e)(3). The SSMP must include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 63.6(e).	Maintain SSMP and report deviations with each applicable emission limitation and each applicable operating limit, including periods of startup, shutdown and malfunction. Report instances when not meeting applicable work practice standard in accordance 63.1575 Consistent with 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with 63.6(e)(1).

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Incinerator (17-1481)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.14.7 General	OAC 1054, Condition 4 (4/12/12)	Supplemental fuel combusted in the Incinerator shall be gaseous fuel only.	*Directly Enforceable* Certify annually that only approved fuels were combusted as supplemental fuel in the incinerator.
5.14.8 VE	OAC 890c, Condition 2 (7/21/11)	Visual emissions from the Incinerator shall not exceed 10% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.14.9 PM & SO_2	OAC 211c Conditions 1(p) and 2 (9/18/12)	Cumulative Particulate and SO_2 limit The 19 effected emission units shall not exceed: • Particulate: 60 tons/calendar month • SO_2: 2,354 lb/hour, calendar month average	Conduct MR&R in accordance with permit term 6.2.
5.14.10 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105(a)(4), 60.105(e)(3)(ii) and 60.106(e) (6/24/08) NWCAA 104.2 (8/9/12)	NSPS for Refinery Fuel Gas H_2S in the gas used as supplemental fuel in the Incinerator shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average.	Operate a CEMS to continuously monitor H_2S in the fuel gas. The CEMS shall meet the requirements of 40 CFR 60 Subpart J, 40 CFR 60 Appendices B and F, NWCAA 367 and NWCAA Appendix A. Follow 40 CFR 60 Appendix A Method 11 or 15

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.14.11 SO_2	OAC 890c, Condition 3 (7/21/11) [29] 40 CFR 60 Subpart J 60.104 (6/24/08) 40 CFR 60 Subpart A 60.11(d) (10/17/00) NWCAA 104.2 (8/9/12)	Except as provided under OAC 890c, Condition 4, SO_2 from the Incinerator shall not exceed any of the following; a. 250 ppm by volume, dry basis, corrected to zero percent oxygen, based on a 12-hour rolling average. The 12-hour rolling average shall be calculated based on corrected hourly averages for the twelve, most recent, consecutive clock hours (BACT limit) b. 1,500 ppm by volume, dry basis, corrected to zero percent oxygen, based on a one-hour average.	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the #2 TGU stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Any one-hour average that is invalidated due to the CEM exceeding its upper range or invalidated due to inactivating the CEM when SO_2 concentrations are over the 1,500 ppm limit is considered prima-facie evidence that that limit has been exceeded.
5.14.12 SO_2	OAC 890c, Condition 4 (7/21/11)	<u>Startup, Shutdown and Malfunction</u> The SO2 BACT limit of 250 ppm, 12-hr-rolling (OAC 890c, Condition 3) does not apply during startup, shutdown and malfunction events as defined in 40 CFR 63.2.	The following conditions apply during startup, shutdown and malfunction events. a. In accordance with 40 CFR 63.6(e)(3) (NESHAPS Subpart A - General Provisions), a Startup, Shutdown & Malfunction Plan (SSMP) shall be developed for the sulfur recovery units and tail gas units, kept current, and followed during each startup, shutdown and malfunction event. b. In accordance with 40 CFR 60.11 (NSPS Subpart A - General Provisions) and 40 CFR 63.6(e)(1) (NESHAPS Subpart A - General Provisions), emissions associated with startup, shutdown and malfunction events at the sulfur recovery units and tail gas units shall be minimized in accordance with good air pollution control practices. c. Startup, shutdown and malfunction events at the sulfur recovery units and tail gas units shall be reported in accordance with the federal regulations cited in this condition, and reported in accordance with WAC 173-400-107 and NWCAA 340 & 341.

[29] BART Order #7836 Rev. 1, Condition 4.1.1.1, 4.1.1.2 and 4.1.1.3 (8/16/13)

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.14.13 HAP	40 CFR Subpart UUU 63.1568(a)(1) (2/9/05) which references 40 CFR Subpart J 60.104(a)(2) (10/17/00) and 40 CFR 60.11 (10/17/00) NWCAA 104.2 (8/9/12)	Refinery MACT II – Organic HAP Emissions Meet a SO_2 limit of 250 ppmvd at 0% excess air for any discharge from a Claus sulfur recovery unit on a 12-hour rolling average. This limit shall be in effect at all times except startup, shutdown and malfunction.	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the Incinerator and #2 TGU stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. During periods of startup, shutdown and malfunction, follow the OMMP and SMMP to minimize emissions consistent with good air pollution control practices.
#2 Tail Gas Unit (25)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.14.14 General	OAC 890c, Condition 1 (7/21/11)	Supplemental fuel gas combusted in the #2 Tail Gas Unit is limited to natural gas.	*Directly Enforceable* Certify annually that only approved fuels were combusted as supplemental fuel in the #2 TGU.
5.14.15 VE	OAC 890c, Condition 2 (7/21/11)	Visual emissions from the #2 TGU Stack shall not exceed 10% opacity for more than three aggregated minutes in any consecutive 60-minute period (Method 9A).	*Directly Enforceable* Conduct MR&R in accordance with Section 6.1 of this permit.
5.14.16 SO_2	OAC 890c, Condition 6 (7/21/11)	SO_2 emissions from the #2 TGU Stack shall not exceed 24.0 lb/hour	Conduct performance test least once every 12 months in accordance with 40 CFR 60 Appendix A, Methods 1-4 and 6C, 8, or other alternative test methods approved in advance by the NWCAA, NWCAA 367 and NWCAA Appendix A. Testing shall be done under maximum operating rates that are at, or above, 80% of full capacity.

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.14.17 SO_2	OAC 890c, Condition 3 (7/21/11) [30] 40 CFR 60 Subpart J 60.104 (6/24/08) 40 CFR 60 Subpart A 60.11(d) (10/17/00) NWCAA 104.2 (8/9/12)	Except as provided under OAC 890c, Condition 4, SO_2 from the #2 TGU stack shall not exceed any of the following; c. 250 ppm by volume, dry basis, corrected to zero percent oxygen, based on a 12-hour rolling average. The 12-hour rolling average shall be calculated based on corrected hourly averages for the twelve, most recent, consecutive clock hours (BACT limit) d. 1,500 ppm by volume, dry basis, corrected to zero percent oxygen, based on a one-hour average.	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the #2 TGU stack in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. Any one-hour average that is invalidated due to the CEM exceeding its upper range or invalidated due to inactivating the CEM when SO_2 concentrations are over the 1,500 ppm limit is considered prima-facie evidence that that limit has been exceeded.
5.14.18 SO_2	OAC 890c, Condition 4 (7/21/11)	<u>Startup, Shutdown and Malfunction</u> The SO2 BACT limit of 250 ppm, 12-hr-rolling (OAC 890c, Condition 3) does not apply during startup, shutdown and malfunction events as defined in 40 CFR 63.2.	The following conditions apply during startup, shutdown and malfunction events. d. In accordance with 40 CFR 63.6(e)(3) (NESHAPS Subpart A - General Provisions), a Startup, Shutdown & Malfunction Plan (SSMP) shall be developed for the sulfur recovery units and tail gas units, kept current, and followed during each startup, shutdown and malfunction event. e. In accordance with 40 CFR 60.11 (NSPS Subpart A - General Provisions) and 40 CFR 63.6(e)(1) (NESHAPS Subpart A - General Provisions), emissions associated with startup, shutdown and malfunction events at the sulfur recovery units and tail gas units shall be minimized in accordance with good air pollution control practices. f. Startup, shutdown and malfunction events at the sulfur recovery units and tail gas units shall be reported in accordance with the federal regulations cited in this condition, and reported in accordance with WAC 173-400-107 and NWCAA 340 & 341.

[30] BART Order #7836 Rev. 1, Condition 4.1.1.1, 4.1.1.2 and 4.1.1.3 (8/16/13)

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.14.19 HAP	40 CFR Subpart UUU 63.1568(a)(1) (2/9/05) which references 40 CFR Subpart J 60.104(a)(2) (10/17/00) and 40 CFR 60.11 (10/17/00) NWCAA 104.2 (8/9/12)	Refinery MACT II – Organic HAP Emissions Meet a SO_2 limit of 250 ppmvd at 0% excess air for any discharge from a Claus sulfur recovery unit on a 12-hour rolling average. This limit shall be in effect at all times except startup, shutdown and malfunction.	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the Incinerator and #2 TGU stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. During periods of startup, shutdown and malfunction, follow the OMMP and SMMP to minimize emissions consistent with good air pollution control practices.
Sulfur Recovery Complex – Process Vents (17-V-047, 17-V-067, & 17-V-074)			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.14.20 VOC	40 CFR 63 Subpart CC 63.643(a) (8/15/95) NWCAA 104.2 (8/9/12)	Refinery MACT I - Group 1 Process Vents Control HAP emissions from applicable vents by using a flare that meets the requirements of 63.11 or a control device that achieves an emission reduction of 98% mass or to 20 ppmv corrected to 3% O_2.	Follow Permit Terms 5.13.6 through 5.13.10 (flares)

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Elemental Sulfur Pits and Storage Tanks			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.14.21 SO_2	OAC 890c, Condition 8 and 13 (7/21/11) 40 CFR Subpart J 60.104 (10/17/00) and 40 CFR Subpart A 60.11(d), (10/17/00) NWCAA 104.2 (8/9/12)	Emissions from the elemental sulfur storage pits shall be controlled through a closed vent system routed to a device capable of meeting the emission limits of 40 CFR 60 Subpart J (250 ppm SO2 corrected to 0% O2 based on 12-hour rolling average and 1500 ppmvd based on a 1-hour average.). Bypassing for maintenance activities may occur for no more than 240 hours per year. During bypass events an AMP shall be followed. Bypassing of the sulfur pit vapor recovery scrubbers for maintenance shall not exceed 240 hours per year per scrubber. During periods of maintenance, measures shall be taken to minimize emissions during periods for which the sulfur pit vents were not controlled	Operate a CEMS to continuously monitor SO_2 & O_2 concentrations in the Incinerator and #2 TGU stacks in accordance with NWCAA 367, NWCAA Appendix A, and 40 CFR 60 Appendices B and F. When bypassing of emissions control occurs follow the following AMP. • Once per shift, measure and record the vented scrubber overhead or pit vent stack emissions, as appropriate, with a colorimetric detector tube to determine H_2S and SO_2 concentrations in the vented gas. • Once per shift, check and record the pressure drop across the north and south sulfur pits and the sulfur tank to ensure flow through the system. These pressure drops shall be continuously monitored with readouts available at the SRU control board. • Report total mass emissions of H_2S and SO_2 in monthly emissions reports during periods when this AMP is utilized. • Record time periods during which sulfur pit vents were not controlled and measures taken to minimize emissions during these periods.

Sulfur Recovery Complex			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Sour Water Unit – Components in VOC/HAP Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.14.22 VOC/ HAP	40 CFR 63 Subpart CC 63.640(p)(2) (10/28/09), and OAC 1043 Condition 1 (5/29/09), and 40 CFR 60 Subpart GGGa 60.590a – 60.593a (6/2/08), and NWCAA 104.2 (8/9/12) which reference Subpart VVa (6/2/08)	Equipment Leaks Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subpart VVa. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21

5.15. Shipping, Pumping, and Receiving

Table 5-15 Chemical Treaters, Truck Loading Rack, Marine Terminal, LPG/Butane/Pentane Loading, Organic Liquids Distribution

Chemical Treaters			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Chemical Treaters - Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.1 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Truck Loading Rack Vapor Combustor (33-151)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.2 VOC	OAC 527d, Condition 4 (7/9/12)	Emissions to the atmosphere from the vapor collection and processing systems shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. The vapor control system shall prevent the emission of at least 90% by weight of VOC's.	Conduct biennial source testing in accordance with 40 CFR 60 Appendix A Method 25 or other method approved in advance by the NWCAA, NWCAA 367 and NWCAA Appendix A. *Directly Enforceable* The source test shall be done in accordance with the requirements of Subpart R including testing for at least 6 hours during loading of at least 300,000 liters of gasoline. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs. 40 CFR 60 Appendix A, Method 25A or 25B may be used in lieu of Method 25.
5.15.3 VOC/ HAP	40 CFR 63 Subpart CC 63.650 (10/28/09) and 63.655(b) (6/30/10) which reference 40 CFR 63 Subpart R 63.422(b), 63.425, 63.427(a)(3) & (b) (12/19/03), 63.428,(c) & (h)(1) (4/6/06) NWCAA 104.2 (8/9/12)	Emissions to the atmosphere from the vapor collection and processing systems shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. The vapor control system shall prevent the emission of at least 90% by weight of VOC's.	Monitor the vapor combustor with a continuous parameter monitoring system (CPMS) capable of measuring temperature. The CPMS shall be installed in the firebox or in the ductwork immediately downstream of the firebox. Follow 40 CFR 60 Appendix A Method 21, and Method 25A or 25B as modified by 40 CFR 60.503 and 63.425), except a reading of 500 ppm shall be used to determine the level of leaks to be repaired under 60.503(b).

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.15.4 VOC	40 CFR 63 Subpart CC 63.650 (10/28/09) and 63.655(b) (6/30/10) which reference 40 CFR 63 Subpart R, 63.425, 63.427(a)(3) & (b) (12/19/03) and 63.428(c) & (h)(1) (4/6/06) NWCAA 104.2 (8/9/12)	Operate the vapor processing system in a manner not to go below the operating parameter determined during performance testing, supplemented by engineering assessments and manufacturer's recommendations that demonstrate continuous compliance with the emission standard.	Monitor combustion chamber temperature of the vapor combustor to ensure an average temperature of not less than 1200ºF during the loading cycle in order to maintain appropriate VOC destruction. Follow 40 CFR 60 Appendix A Method 21, and Method 25A or 25B as modified by 40 CFR 60.503 and 63.425
5.15.5 VOC	NWCAA 580.424 (6/14/01) WAC 173-491-040(2)(c)(i) and (2)(c)(ii) (1/23/98–state only) NWCAA 104.2 (8/9/12)	The vapor control system shall prevent the emission of at least 90 percent by weight of the VOC and shall limit the emission to no more than 35 milligrams VOC per liter of gasoline transferred.	*Directly Enforceable* Follow Permit Terms 5.15.2 and 5.15.3 Follow 40 CFR 60 Appendix A Method 21, and Method 25A or 25B as modified by 40 CFR 60.503 and 63.425
5.15.6 SO_2	40 CFR 60 Subpart J 60.104(a)(1), 60.105 (a)(4) and 60.105(e)(3)(ii) (6/24/08) NWCAA 104.2 (8/9/12)	<u>NSPS for Refinery Fuel Gas</u> H_2S in gasses combusted in the Truck Loading Rack Vapor Combustor shall not exceed 162 ppmvd (230 mg/dscf), 3-hour rolling average. Purchased natural gas that is used as supplemental fuel in the Vapor Combustor is exempt from this requirement.	Retain records of fuel used for pilot gas. Retain records to assure that fuels loaded meet the sulfur specifications for that finished product. Report to EPA Region 10 and the NWCAA, any change in the type of fuels loaded, type of gaseous fuel used as a pilot fuel in the vapor combustor or any change in their sulfur specifications. In addition, report any failures to meet the sulfur specifications of products loaded or fuel used for the pilot. Reports shall be submitted within 30 days of the change or failure to meet sulfur specifications a product or fuel. 40 CFR 60 Appendix A Method 11 or 15

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Truck Loading Rack (33-150)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.7 General	OAC 527d, Condition 11 and 12 (7/9/12)	Maximum loadout of gasoline through the terminal shall be limited to 26,000 barrels per day. Total loadout of diesels and jet fuel shall be limited to 76,000 barrels per day combined	Maintain a record of the calendar day Truck Loading Rack loading rate of gasoline, diesel and jet fuels.
5.15.8 VOC	OAC 527d, Condition 5 (7/9/12) NWCAA 580.425(6/14/01)	The vapor control system shall be equipped with an appropriate alarm system to alert personnel when the system is not in compliance with 580.424.	*Directly Enforceable* Operate a functioning interlock system that prevents loading when a cargo tank is not in compliance or when the vapor recovery system is not in operation.
5.15.9 VOC	OAC 527d, Condition 1 (7/9/12) NWCAA 580.421 (6/14/01) WAC 173-491-040(2)(b)(i) (1/23/98-state only)	The loading terminal shall employ submerged loading or bottom loading and be equipped with a vapor control system.	*Directly Enforceable* Keep written operation and maintenance procedures onsite specifying that all product loading will be submerge loaded and that the vapor combustor shall be operating at all times when gasoline vapors are being routed to the device.
5.15.10 VOC	OAC 527d, Condition 2 (7/9/12) NWCAA 580.422 (6/14/01) WAC 173-491-040(2)(b)(iv) (1/23/98-state only)	All loading and vapor lines shall be equipped with vapor-tight fittings which close automatically upon disconnect. The point of closure shall be on the tank side of any hose or immediate connecting line.	*Directly Enforceable* Keep written procedures on-site specifying that all product loading and vapor control lines shall be equipped with vapor-tight fittings that close automatically and that the lines are designed to prevent leaks.

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.15.11 VOC	OAC 527d, Condition 8 (7/9/12)	Equipment shall be operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading and pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall not begin to open at a system pressure less than 4,500 pascals.	Maintain a pressure measurement device installed in the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck. The device shall be periodically calibrated to ensure that it is capable of measuring up to 500 mm of water gauge pressure within 2.5 mm of precision. *Directly Enforceable* Maintain a record of the results of each calibration.
5.15.12 VOC	OAC 527d, Condition 3 (7/9/12) NWCAA 580.423 and 580.424 (6/14/01) WAC 173-491-040(2)(b)(ii) and (iii) (1/23/98-state only) 40 CFR 63 Subpart R 63.425(a) (12/19/03) NWCAA 104.2 (8/9/12)	Vapor return lines shall be connected such that all displaced vapors during loading are vented to the vapor recovery system.	*Directly Enforceable* Inspect and record condition during biennial testing.
5.15.13 VOC	OAC 527d, Condition 7 (7/9/12) NWCAA 580.103 and 580.1033 (11/12/99) WAC 173-491-040(6)(b)(iii)(A)(II), (III), (IV) and (B) (1/23/98-state only)	Operate the vapor recovery system such that: The gasoline vapor concentration is less than the lower explosive limit at a distance of 2.5 cm or greater from any potential leak source; and Liquid leaks must be less than 3 drops per minute and no more than 10 ml per disconnect (4 drops per minute per WAC 173-491-040). Repair and retest a vapor collection system that exceeds these limits within ten days (15 days per WAC 173-491-040).	Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline cargo tanks for liquid or vapor leaks of volatile organic compounds. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after detection. Maintain a record of the results of monthly leak detection and repair inspections.
5.15.14 VOC	OAC 527d, Condition 6 (7/9/12) NWCAA 580.426 (6/14/01)	All loading arms shall be designed, maintained and operated to prevent overfill, fugitive liquid or vapor leaks, and excess gasoline drainage during disconnect.	*Directly Enforceable* Inspect and record condition during biennial testing.

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.15.15 VOC	WAC 173-491-040(6)(b)(iii)(A)(1) & (b)(iii)(B) (1/23/98-state only)	Transport tank pressure shall not exceed a pressure of eighteen inches of water or a vacuum of six inches of water. Repair and retest a vapor collection system that exceeds this limit within fifteen days.	*Directly Enforceable* Inspect and record condition during biennial testing.
5.15.16 VOC	WAC 173-491-040(2)(c)(iii) (1/23/98-state only)	The backpressure in the vapor collection system shall not exceed the transport tank's pressure relief settings.	
5.15.17 VOC/ HAP	NWCAA 580.102, 1021, 1031, and 1032 (11/12/99) WAC 173-491-040(6)(b)(i) and WAC 173-491-040(6)(d) (1/23/98-State only) WAC 173-491-030(4) (10/7/07-State only)	Gasoline transport tanks have to be leak tested annually. Ensure that gasoline is loaded only into cargo tanks that pass annual leak checks performed in accordance with 40 CFR 60 Appendix A Method 27 and the criteria of NWCAA 580.103.	*Directly Enforceable* Maintain copies of a valid leak-tightness test certification for each cargo tank loaded. Maintain annual throughput records for the loading terminal.
5.15.18 VOC	OAC 527d, Condition 9 (7/9/12)	Maintain a record of all replacements and additions of components performed on the vapor processing system.	*Directly Enforceable* Keep records of replacements and additions to components on the existing vapor processing system onsite and available for inspection.
5.15.19 VOC	OAC 527d, Condition 10 (7/9/12)	Emissions from the Truck Loading Rack shall be included in the annual emission inventory report submitted to the NWCAA.	*Directly Enforceable* Report emissions from Truck Loading Rack in annual emissions report.

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.15.20 VOC/ HAP	40 CFR 63 Subpart CC 63.650 (10/28/09) and 63.655(b) (6/30/10) which references 40 CFR 63 Subpart R 63.422(c), 63.425(e), (f), (g) & (h) (12/19/03), 63.428(b), (g)(1), (h)(2)-(3) & (k) (4/6/06) NWCAA 104.2 (8/9/12)	Loading of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the procedures specified at 60.502(e) (as modified by 40 CFR 63.422(c). Assure that loading of gasoline tank trucks is made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system and that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility.	Maintain annual vapor-tightness testing documentation for each cargo tank that is loaded with gasoline or had gasoline as a previous product. Vapor-tightness documentation shall indicate the test methods used, date of testing and test results. Report semi-annually, all cargo tanks that were loaded during which there was no leak-tightness documentation on file prior to loading. Vapor-tightness testing shall be performed in accordance with 63.425(e)-(h) If the facility utilizes a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by NWCAA during the course of a site visit, or within a mutually agreeable time frame.
5.15.21 VOC	WAC 173-491-040(6)(a) (1/23/98-state only)	During the months of May, June, July, August, and September any failure of a vapor collection system to comply with WAC 173-491-040 requires the discontinuation of gasoline transfer operations for the failed part of the system.	*Directly Enforceable* Record any periods during these months when the vapor collection system failed and actions taken.
5.15.22 VOC	WAC 173-491-040(6)(e) (1/23/98-state only)	Take reasonable measures to prevent the spilling, discarding into sewers, storing in open containers, or handling of gasoline in a manner that will result in evaporation to the ambient air.	

Truck Loading Rack			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Truck Loading Rack – Equipment in HAP Service			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.23 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	<u>MACT for Equipment Leaks</u> Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

Marine Terminal			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Entire Marine Terminal (35-160:162)			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.24 VOC/ HAP	40 CFR 63 Subpart Y 63.562(b)(1)(i) and (c)(2)(i), 63.563(a)(1), 63.564(b)(3), 63.567(f) and (g) (4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12)	Vapor Collection System of the Terminal Collected vapors shall not pass through another loading berth or bypass valve to the atmosphere. Bypass valves shall be closed during loading by car-seal or other mechanism such as a flow indicator to ensure adequate closure. Repairs shall be made to valves, car-seals, or closure mechanisms no later than 15 days after a change in the position of the valve or a break in the car-seal or closure mechanism is detected or no later than prior to the next marine tank vessel loading operation, whichever is later.	Visually inspect bypass valves during each vessel loading and at least once per month to ensure that they are closed. Maintain a detailed engineering report that describes the vapor collection system and the location of each bypass valve that has the potential to vent collected vapors to the atmosphere without control. Maintain a record of the date and time that each bypass valve is opened or closed.
5.15.25 VOC/ HAP	OAC 716b, Conditions 1 and 2 (7/9/12) 40 CFR 63 Subpart Y 63.562(a), (b)(1)(ii) and (c)(2)(ii), 63.563(a)(2), 63.564(c), 63.565(b) (4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12)	Ship-to-Shore Compatibility Each vessel's vapor collection equipment shall be compatible with onshore equipment and the vessel shall be connected to the onshore vapor collection system during loading.	*Directly Enforceable for OAC 716b* Continuously monitor the operating pressure of the vessel during loading.

Marine Terminal			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.15.26 VOC/ HAP	OAC 716b, Condition 3 (7/9/12) 40 CFR 63 Subpart Y 63.562(b)(1)(iii) and (c)(2)(iii), 63.563(a)(4), 63.565(c)(1), 63.567(h) and (i) (4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12)	Vapor Tightness of Marine Vessels Load only vessels that are vapor-tight and tested using methods specified in 63.565(c)(1).	*Directly Enforceable for OAC 716b* Maintain a permanent record documenting that each vessel loaded was tested and determined to be vapor-tight no more than 12 months prior to loading. The documentation shall include the test title, vessel name, number and owner, test date and location, tester name and signature.
5.15.27 VOC/ HAP	OAC 716b, Condition 4 (7/9/12)	Vapor Combustor Control Efficiency The combustion device shall during all loading control VOC emissions by at least 98% by weight.	*Directly Enforceable for OAC 716b* Continuously monitor and maintain a baseline exhaust temperature of the vapor combustor ≥ 1350°F average for each continuous 3-hour block during which loading operations occur. Record the temperature at least once every 15 minutes, and compute the hourly average temperature and 3-hour block average temperature. The temperature monitor shall be accurate within +/- 10°F, or within 1% of the baseline temperature, whichever is less stringent. Verify the accuracy of the temperature monitor at least once each calendar year with a reference temperature monitor (traceable NIST standards or an independent temperature measurement device dedicated for this purpose). During this accuracy test, the probe of the reference device shall be at the same location as that of the temperature monitor being tested. Maintain a record of the results of each performance test used to determine the baseline temperature of the vapor combustor. 40 CFR 60 Appendix A, Method 25A or 25B may be used in lieu of Method 25.
5.15.28 VOC/ HAP	40 CFR 63 Subpart Y 63.562(c)(3) and (4), 63.563(b)(4), 63.564(a), 63.564(e)(2) and (4), 63.565(d) and (f) (4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12)	Vapor Combustor Control Efficiency The combustion device shall; • During all loading control VOC emissions by at least 98% by weight, and • During gasoline loading VOC emissions shall not exceed 1,000 ppmv VOC. Determine the baseline temperature required to meet these emission limits during performance testing using EPA Method 25.	

Marine Terminal			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.15.29 VOC/ HAP	OAC 716b, Condition 5 (7/9/12) 40 CFR 63 Subpart Y 63.562(c)(6)(4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12)	Maintenance Allowance Loading of light refinery product may be performed without emission control for a period not to exceed 14 days in any consecutive 12-month period to allow for maintenance on the vapor control equipment. A day is defined as any portion of a calendar day in which loading of light refinery products is performed without emission control due to maintenance of the vapor collection or control equipment.	Maintain a record of all maintenance performed on the air pollution control equipment at the marine terminal.
5.15.30 VOC/ HAP	40 CFR 63 Subpart Y 63.562(e), 63.563(b)(3) (4/21/11) 40 CFR 63 Subpart CC 63.651(a) (10/28/09) NWCAA 104.2 (8/9/12	Operation & Maintenance Plan If any operating parameters are discovered to be outside the acceptable range of the O & M plan, an inspection of the equipment shall be conducted within 24 hours to correct the variance. Corrective action shall be taken as soon as practicable for any maintenance problem identified during the inspection.	Maintain a written O & M plan that includes monitoring methods, inspection schedules, and a continuous monitoring system quality control program. If the O & M plan is revised all previous versions of the plan shall be maintained. Maintain records of maintenance and inspection activities, and any variances that occur in the program.
5.15.31 VOC/ HAP	40 CFR 63 Subpart Y 63.563(c) and 63.567(k) (4/21/11) 40 CFR 63 Subpart CC 63.651 (10/28/09) NWCAA 104.2 (8/9/12)	Equipment Leaks Conduct an inspection and instrument survey for leaks on the vapor collection and control device, including ductwork, piping and connections, using EPA Method 21 at least once each calendar year. When a leak is detected, a first effort to repair the vapor collection system and control device shall be made within 15 days or prior to the next marine tank vessel loading operation, whichever is later.	Leaking component shall be tagged until repaired. A record shall be maintained of the date each leak was identified, how it was identified, where it was located, the date the leak was repaired and the name and signature of the person conducting the leak detection and repair work. Follow 40 CFR 60 Appendix A Method 21
5.15.32 VOC/ HAP	40 CFR 63 Subpart Y 63.560(d) and 63.567(c) (4/21/11) 40 CFR 63 Subpart CC 63.651 (10/28/09) NWCAA 104.2 (8/9/12)	Exempt Commodities 40 CFR 63 Subpart Y does not apply to emissions resulting from loading commodities with a vapor pressure less than 1.5 psia at standard conditions (20°C).	Maintain a record of the periods during which commodities are loaded having a vapor pressure less than 1.5 psia.

Marine Terminal			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.15.33 General	OAC 716b, Condition 6 (7/9/12)	Record of products loaded	Records of total refinery products loaded at each berthing dock shall be maintained on site.
5.15.34 General	OAC 716b, Condition 7 (7/9/12)	At all times including periods of startup and malfunction, owners or operators shall operate the terminal in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Standard operating procedures for the Marine Terminal shall be made available to the NWCAA upon request.

LPG / Butane / Pentane Loading			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
LPG / Butane / Pentane Loading - Components in VOC Service			
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.15.35 VOC	40 CFR 60 Subpart GGG 60.590-60.593 (6/2/08) and NWCAA 580.8 (3/13/97) which reference 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12) NWCAA 580.846 (12/13/89)	<u>NWCAA 580 and NSPS for Equipment Leaks</u> Monitor components in VOC service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3, in addition; • Visually inspect any relief valve within 24 hours after it has vented to atmosphere. Follow 40 CFR 60 Appendix A Method 21
5.15.36 VOC	OAC 298a Condition 1 (4/30/12)	The butane loading rack shall employ vapor balancing and during butane loading operations, vapors shall be collected and recovered or incinerated.	*Directly Enforceable* Report any periods during which vapors are not controlled during butane loading as a deviation in the monthly report.

Organic Liquids Distribution			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Organic Liquids Distribution, Small Tanks and Racks			
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.37 HAP	40 CFR 63 Subpart EEEE 63.2343(a) (4/23/08) NWCAA 104.2 (8/9/12)	MACT for Organic Liquids Distribution (Non-Gasoline) Emission sources not requiring control: • Storage Tanks with capacity less than 5,000 gallons • Transfer Unloading Racks only	Maintain records of; • Vessel capacity. (Controls are required for vessels with 5,000 gallons or more but less than 10,000 gallons.) • Keep record of transfer rack operations. (The total throughput from all affected transfer racks combined must exceed 800,000 gallons per year to be subject to control requirements. Tote to tote transfers are considered transfer racks.)
5.15.38 HAP	40 CFR 63 Subpart EEEE 63.2343(b)(1) & (2) 63.2343(c)(3) (4/23/08), 63.2390(d) (7/17/08) NWCAA 104.2 (8/9/12)	MACT for Organic Liquids Distribution (Non-Gasoline) Emission sources not requiring control: Existing Transfer Loading & Unloading Racks and no loading to transport vehicles	Keep available a current record of the total actual annual facility-level organic liquid loading volume through transfer racks. In the event that an affected facility subject to the control requirements is added, submit subsequent initial notification and semiannual compliance reports containing the information specified in 63.2386(c)(1), (2), (3), and (10)(i), and as applicable in (d)(3) and (4).
5.15.39 HAP	40 CFR 63Subpart EEEE 63.2386(e) (6/28/06) NWCAA 104.2 (8/9/12)	MACT for Organic Liquids Distribution (Non-Gasoline) Report a deviation if controls required.	In the event that an affected facility subject to the control requirements, report Subpart EEEE deviations in the semiannual reports.
5.15.40 HAP	40 CFR 61 Subpart BB 61.300(b) & (d), and 61.305(i) (10/17/00) NWCAA 104.2 (8/9/12)	NESHAP for Benzene Transfer Operations Recordkeeping and reporting for facilities with annual benzene loading below 1.3 million liters (343,424 gallons) and/or the material loaded is less than 70% by weight benzene.	Maintain records of; • The weight percent of the benzene loaded. • The type of vessel loaded (i.e., tank truck, railcar, or marine vessel) • The annual amount of benzene loaded into each type of vessel.

Crude Rail Car Unloading Facility			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Crude Rail Car Unloading Facility - Components in HAP Service			
Note: 40 CFR 60, 61. and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.15.41	OAC 1142, Conditions 1 and 2 (1/22/13)	Benzene Limit: Benzene content shall not exceed 1.8% by weight.	Maintain records of: • Type of material and its origin • Benzene content (weight percent) • Volume of the shipment (barrels) • Time period and dates shipment was unloaded
5.15.42	OAC 1142, Conditions 3, 4 and 5 (1/22/13)	Railcar unloading shall be conducted using a combination of vapor balancing and direct vacuum breaker methods that prevent emissions to the atmosphere from vapor lines between the railcar vent and the crude oil sump from exceeding 500 ppm VOC as determined using 40 CFR 60 Appendix A (EPA) Method 21.	At least once every 12 months, visually inspect all equipment used for vapor balancing to ensure proper operation. Monitor potential leaks identified by visual inspection using EPA Method 21. Repair any leaks that exceed 500 ppm VOC, or remove associated equipment from service, prior to unloading next shipment. Maintain records of monitoring, leak repairs, and equipment disconnections.
5.15.43	OAC 1142, Condition 6 (1/22/13)	All vents from oily wastewater system shall be connected to closed-vent system and control device designed and operated in accordance with 40 CFR 61.349.	Comply with AOP Term 5.17.11
Crude Rail Car Unloading Facility - Components in HAP Service			
5.15.44	OAC 1142, Condition 7 (1/22/13)	Monitor process equipment for leaks, repair leaks in a timely manner, and report results semi-annually as per 40 CFR 60 Subpart GGGa and its reference requirements of CFR 60 Subpart VVa.	Conduct a LDAR program in accordance with AOP Section 6.4 Follow 40 CFR 60 Appendix A Method 21

Crude Rail Car Unloading Facility			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.15.45	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	MACT for Equipment Leaks Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.16. Non-Hazardous Waste Landfarm

Table 5-16 Non-Hazardous Waste Landfarm

Non-Hazardous Waste Landfarm			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Entire Non-Hazardous Waste Landfarm			
Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.16.1 VOC	OAC 382a, Condition 1 (5/15/12)	Emissions from the landfarm shall be reported on an annual basis as part of the NWCAA emissions inventory.	Report annually, emissions from the non-hazardous waste landfarm.

5.17. Oily Wastewater Collection, Storage and Treatment

This presents the MR&Rs for process drains that discharge to the refinery's oily water wastewater system, ancillary downstream sewer lines and junction boxes and treatment at the oil-water separators. It also includes MR&R for wastewater containers and tankage, including

internal floating roof (IFR) Tanks 320, 321, 322 and 323. Under 40 CFR 63 Subpart CC, oily wastewater emissions are controlled and monitored under 40 CFR 61 Subpart FF National Emission Standard for Benzene Waste Operations.

Table 5-17 Oily Wastewater Collection, Storage and Treatment

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Entire Oily Wastewater, Collection, Storage and Treatment Facilities			
Note: 40 CFR 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.1 General	OAC 348a, Condition 1 (5/3/12)	Include benzene and VOC emissions emitted from oily wastewater collection, storage, and treatment systems in annual emission inventory reports.	Report annually, the quantity of benzene and VOC emissions from oily wastewater collection, storage, and treatment systems.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.17.2 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.346 (1/7/93), 61.355(h) (10/17/00), 61.356(g) & (h) and 61.357(d)(6) (10/17/00) NWCAA 104.2 (8/9/12)	Drain Systems Install, operate, and maintain on each applicable drain system, junction box or opening, a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. Non-exempt drain systems shall be equipped with a water seal, cap or plug so that emissions are not vented to the atmosphere. Downstream sewer lines and junction boxes shall be covered and sealed so that emissions are not vented to the atmosphere, except that junction boxes may vent to atmosphere with an appropriate length vent-pipe and flow meter.	Visually inspected quarterly to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly. When a broken seal, gasket or other problem is identified, or when detectable emissions are measured, a first attempt at repair shall be made as soon as practicable, but not later than 5 calendar days after detection. Repairs shall be completed within 15 calendar days. Maintain records of the location, date, and corrective action taken for each problem identified during visual inspections that could result in emissions to the atmosphere. For each non-detectable emission test, record the date of test, equipment monitored, results of monitoring, description of problems found, and the date and description of corrective action taken. Submit quarterly certifications that all required inspections have been completed accordance with 40 CFR 61 Subpart FF. Follow 40 CFR 60 Appendix A Method 21 *Directly Enforceable* Each active service drain shall be inspected monthly for indication of low water levels or other conditions that would reduce the effectiveness of the water seal control. Whenever low water levels are identified water shall be added or first efforts to repair shall be made as soon as practical but no later than 24 hours after detection. Each inactive service drain shall be inspected weekly for indication of low water levels or other conditions that would reduce the effectiveness of the water seal controls or problems that could result in emissions to the atmosphere.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.3 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.346(b) (1/7/93), 61.349(a)(1)(iii), 61.355(h) (10/17/00), 61.356 (11/12/02) and 61.357 (10/17/00) NWCAA 104.2 (8/9/12)	Applicable Gauging and Sampling Devices Shall be gas-tight except when gauging or sampling is taking place.	Design to be gas-tight. Maintain records of all gauging and sampling device locations and identifications. Submit a quarterly certification that all inspections have been carried out in accordance with 40 CFR 61 Subpart FF. Follow 40 CFR 60 Appendix A Method 21

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.4 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.346(b)(1) (1/7/93), 61.355(h) (10/17/00) 61.356 (11/12/02) and 61.357 (10/17/00) NWCAA 104.2 (8/9/12)	Covers and Openings – System operated at a pressure greater than atmospheric Applicable covers and openings (e.g., access hatches, sampling ports) shall be designed to operate with no detectable emissions of less than 500 ppmv above background. Each opening shall be maintained in a closed, seal position (e.g., covered and gasketed) at all times waste is in the drain system except when necessary for inspection, waste sampling, maintenance and/or repair.	Annual testing using 40 CFR 60 Appendix A Method 21. The detection equipment shall meet the performance criteria of EPA Method 21 and calibrated before each use on each day of its use by the procedures described in 40 CFR 60 Appendix A Method 21. Calibration gases shall be: • Zero air • A mixture of methane or n-hexane and air at a concentration of approximately 10,000 ppm methane or n-hexane. The following monitoring procedures shall be employed: • Background levels determined using 40 CFR 60 Appendix A Method 21, • Probe to traverse around the potential leak interfaces as close as possible per 40 CFR 60 Appendix A Method 21, • The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared to the 500 ppmv compliance limit. Records for visual inspections shall include date of inspection, waste management unit and control equipment, location and type of problem, and description and date of corrective action. Records for each non-detectable emission test shall include date of test, background level maximum concentration measured for each measured leak interface, waste management unit and control, description of problem, and description and date of corrective action. Submit a quarterly certification that all inspections have been carried out in accordance with 40 CFR 61 Subpart FF. Follow 40 CFR 60 Appendix A Method 21

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.17.5 HAP	40 CFR 63 Subpart CC 63.647(a) and (c) which references 40 CFR 61 Subpart FF 61.346(b)(5) (1/7/93), 61.350 (3/7/90), 61.356 (11/12/02) and 61.357 (10/17/00) NWCAA 104.2 (8/9/12)	Repair and Delay of Repair The first efforts at repair of applicable equipment and components shall be made as soon as practical, but not later than 15 calendar days after identification. Delay of repair of applicable equipment and components is allowed if the repair requires a complete or partial facility or unit shutdown. If a delay of repair occurs, repair shall be completed before the end of the next facility or unit shutdown.	Maintain records of visual inspections that include; the date of inspection, waste management unit and control equipment inspected, location and type of problems identified, and the date and description of corrective action taken. Maintain a record of equipment put on a delay of repair schedule and the anticipated date of repair.
5.17.6 HAP	40 CFR Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.342(c), 61.355(k) and 61.357(d) (10/17/00) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	Total Annual Benzene (TAB) Report Calculate the benzene quantity in each waste stream at the refinery. Determine which waste streams are exempt from emission control under the criteria set forth in Subpart FF. BP utilizes the 2.0 Mg benzene per year allowance for exempted stream under 61.342(c)(3)(B).	Submit an annual report to the NWCAA that includes a table identifying each benzene waste stream at the refinery, those waste streams chosen for exemption and the cumulative TAB quantity from those exempted streams.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.17.7 HAP	40 CFR 63 Subpart CC 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.356(e) & (i) (10/17/00) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	Management and Treatment Records Keep records documenting that the benzene waste stream is being managed and treated in accordance with its design and operating specifications	Maintain records for the life of the unit certifying that the treatment process or wastewater treatment system unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content that is expected to occur. Maintain the records of the design analysis, test procedures used, unit startups and shutdowns and any periods when a unit is not operating as designed.
5.17.8 HAP	40 CFR Part 61 Subpart FF §61.348 (a)(5), (b)(2)(i) & (ii)(B), (c), and (g) §61.354(b)(2) (11/12/02) §61.355(c)(3) (10/17/00) §61.356(a) (11/12/02), 40 CFR Part 63 Subpart CC §63.647 (8/15/95) §63.655(a) (6/20/13)	Aggregated Process Wastewater Treatment: The benzene content of each waste stream entering the enhanced biodegradation unit must be less than 10 ppmw on a flow-weighted annual average basis as determined by the procedures specified in §61.355(c).	Monitor each wastewater treatment system to ensure the unit is properly operated and maintained by the appropriate monitoring procedure as follows: For each enhanced biodegradation unit that is the first exempt waste management unit in a treatment train, measure the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in §61.355(c)(3). Maintain records for not less than 2 years from date of generation.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
API Oil Water Separator – Fixed Roof			
Note: 40 CFR 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.9 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95), and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.347 (1/7/93), 61.350 (3/7/90), 61.355(h) (10/17/00), 61.356(d),(g) & (h) (11/12/02) and 61.357(d)(6) & (d)(8) (10/17/00) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	<u>Oil Water Separators - Fixed Roof</u> With the exception of bays equipped with floating roof covers, each oil water separator system shall be covered and vapors routed to a control device. The system shall operate with no detectable emissions equal to or greater than 500 ppm above background. Each opening is to remain closed or sealed except during sampling, inspection or maintenance. Except where repair requires a unit shutdown, a first attempt at repair shall be made as soon as practicable, but not later than 15 calendar days after identifying a problem with a seal or gasket or when a leak is detected. When repair is delayed for a shutdown, repair shall be made before the end of the next unit shutdown.	Perform quarterly visual inspections of each cover seal, access hatch, and all other openings to ensure there are no cracks or gaps and that openings are properly closed and gasketed. If defects are found they shall be repaired as soon as practical and in no case later than within 15 days of discovery unless repair requires a unit shutdown. Submit quarterly reports to the NWCAA certifying that required inspections have been completed. Annually, monitor for leaks using 40 CFR 60 Appendix A Method 21. Instrument calibration gases shall be zero air (<10 ppm HC) and approximately 10,000 ppm methane or n-hexane. Submit an annual report that includes results of inspections and leak tests which indicates a 500 ppm leak above background or where or a problem such as a broken seal, gap, or other problem occurred. The report shall include a description of action taken to correct each problem and the date the action was completed. Maintain records of all leak testing and inspections performed. Maintain engineering design documentation for the life of the control equipment. Maintain records for each visual inspection that identifies a problem that could result in a benzene emissions release. Follow 40 CFR 60 Appendix A Method 21

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
API Oil Water Separator Effluent Sump - Floating Roof			
Note: 40 CFR 60, 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.10 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.350, 61.352 (1/7/93) 61.356(l) (11/12/02) and 61.357(g) (10/17/00) which references 40 CFR 60 Subpart QQQ 60.693-2(a), 60.692-6 and 60.696(d) (8/18/95) NWCAA 104.2 (8/9/12)	<u>Oil Water Separators - Floating Roof</u> The floating roof shall have primary and secondary seals. Primary seal gaps shall not to exceed 1.5 inches at any one point or 3.2 square inches per foot of total gap area. Secondary seal gaps shall not exceed 0.5 inches at any one point or 0.32 square inches per foot of total gap area. Access doors and other openings shall be properly gasketed and sealed when not in use. Emergency roof drain fabric shall cover 90% of the drain area. Defects in gaps or seals shall be repaired within 30 days of discovery (Delay of repair of facilities subject to 40 CFR Subpart FF 61.350 are allowed if the facilities cannot be repaired without a complete or partial shutdown of the facility. Repairs must be made before the end of the next facility shutdown.)	Measure the secondary seal gaps annually and measure the primary seal gaps at least once every five years. Gaps shall be measured while the roof is floating off its legs and at a design operating level using various sized probes at all points where a 1/8" diameter probe passes freely between the roof seal and separator wall. Gap areas shall be calculated by adding the gap surface area of each gap location for the primary seal and the secondary seal individually and dividing the sum for each seal by the nominal perimeter of the separator basin. Conduct quarterly visual inspections of access doors, emergency roof drains and other openings. Defects in gaps, hatch covers, gaskets, seals or other openings shall be repaired within 30 days of discovery unless repair requires a complete or partial refinery or process unit shutdown. If a delay of repair is utilized, repair shall be made before the end of the next refinery or process unit shutdown. Maintain records of visual inspections and gap testing that include the date of inspection and/or gap measurement and the result. If repairs are made, the records shall include the date of the repair and repair method used. Submit quarterly reports that identify all seal gap measurements that are found to exceed the prescribed limits. Follow 40 CFR 60 Appendix A Method 21

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Closed Vent Systems			
Note: 40 CFR 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.11 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95), and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.349 (10/17/00), 61.350 (3/7/90), 61.354(f), 61.355(h) (10/17/00), 61.356(f)(1), (g), & (h) (11/12/02) and 61.357(d)(6) & (d)(8) (10/17/00) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	<u>Closed Vent Systems</u> Design the system to operate with no detectable emissions. If a bypass vent is used it shall be closed and secured during normal operations and inspected monthly. Inspect quarterly and monitor for leaks annually. First attempt at repair shall be made as soon as practical but in no case later than 5 days after detection. Repair shall be completed within 15 days, unless a delay of repair is required by a unit shutdown.	Visually inspect quarterly, or monthly, if bypass vents are used. Instrument monitor for leaks annually using 40 CFR 60 Appendix A Method 21 and a leak definition of 500 ppm above background. Instrument calibration gases shall be zero air (<10 ppm HC) and approximately 10,000 ppm methane or n-hexane. Keep records on the location and date of defects found during inspections and/or leaks found during instrument monitoring. Records shall include the date and description of corrective action taken. Maintain for the life of the equipment, certification that the system was designed for operations at the highest estimated load rates. Submit quarterly certifications that required inspections were completed. Submit annual reports summarizing the results of visual inspections and instrument monitoring. Follow 40 CFR 60 Appendix A Method 21

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Carbon Adsorption Control Devices			
Note: 40 CFR 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.12 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95), and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.349(a)(2)(ii), (c)(1) & (h), 61.354(d) (10/17/00) and 61.356(a), (f)(2) & (j) (11/12/02) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	<u>Carbon Adsorption Control Devices</u> Carbon adsorption system shall control organic emissions with at least 95% by weight efficiency or control benzene emissions with at least 98% by weight efficiency. Operate the control device at all times except during maintenance or repair of the waste management unit. Maintain a design analysis for the control device and define a carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.	Monitor the organic compound concentration level in the exhaust either on a daily basis or at intervals no greater than 20% of the design carbon replacement interval, whichever is greater. Replace the carbon with fresh carbon when breakthrough (concentration of 500 ppmv above background) is indicated. Conduct quarterly visual inspections of the closed vent system and control device and make a first attempt at repair as soon practical but in no case later than 5 calendar days after detection. Complete repair no later than 15 days after emissions are detected or a visual defect is observed. A delay of repair can be utilized if the repair requires a unit shutdown, however, repair must be completed by the end of the next unit shutdown. Maintain documentation that includes: • Dates of startup and shutdown of the closed-vent system and control device. • A description of the operating parameter to be monitored to ensure that the control device will be operated in conformance with the standards and the design specifications and an explanation of the criteria used for selection of that parameter. • Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when any valve car-seal or closure mechanism is broken or the bypass line valve position had changed. Maintain records of dates and times when the system is inspected and monitored and when carbon beds are replaced. Submit quarterly certification to the NWCAA that the required inspections have been carried out.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Containers (including Vacuum Trucks)			
Note: 40 CFR 61 General Provisions included in Section 3 apply to these affected facilities.			
5.17.13 HAP	40 CFR 61 Subpart FF 61.345(a), (b), & (c) (12/4/03), 61.350 (3/7/90), 61.355(h) (10/17/00), 61.356(g) & (h) (11/12/02) and 61.357(d)(6) & (d)(8) (10/17/00) NWCAA 104.2 (8/9/12)	Containers Install, operate, and maintain a cover on each container used to handle, transfer, or store waste. The cover and all openings shall be designed to operate with no detectable emissions as indicated by less than 500 ppmv above background. Maintain each opening in a closed, sealed position (e.g. covered by a lid that is gasketed and latched) at all times when waste is in the container, except when loading, removing, sampling, or inspecting wastes. Splash loading is not allowed. When waste is transferred by pumping, the fill pipe should be submerged. During loading, the cover shall remain in place and all openings shall be closed and sealed, except for those openings required for the submerged fill pipe, those openings required for venting to prevent physical damage or permanent deformation of the container or cover. Except where repair requires a complete or partial facility or unit shutdown, if a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. If repair must be delayed, the repair shall occur before the end of the next facility or unit shutdown/turnaround.	Quarterly, visually inspect each cover and all openings to ensure that they are closed and gasketed properly. Submit quarterly certification that required inspections were carried out consistent with 61.357(d)(6). Annually, using 40 CFR 60 Appendix A Method 21 monitor using an Organic Vapor Analyzer. Calibration gases shall be zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of approximately 10,000 ppm methane or n-hexane. Maintain records for each test of no detectable emissions. Annually, submit a report summarizing all inspections during which detectable emissions were measured or a problem detected (such as a broken seal, gap, or other problem) that could result in benzene emissions was identified, including the repairs or corrective action taken. Maintain records for each visual inspection that identifies a problem that could result in benzene emissions. This is not a requirement if the benzene quantity in the containers is added to the 2 Mg exempted amount.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Internal Floating Roof Tanks 320, 321, 322, 323 (Subject to NWCAA 560, 580, 40 CFR 63 Subpart CC and 40 CFR 61 Subpart FF)			
Note: 40 CFR 61 and 63 General Provisions included in Section 3 apply to these affected facilities.			
5.17.14 VOC	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) 40 CFR 61 Subpart FF Directly NWCAA 104.2 (8/9/12)	Alternative Standards for Tanks 40 CFR 61.351 allows as an alternative that tanks meet the internal floating roof requirements of 40 CFR 60 Subpart Kb 60.112b(a)(1)	Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.17.17, 15.16.19 through 15.16.25.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.17.15 VOC	NWCAA 560 (4/14/93)	<u>Storage of Organic Liquids with a True Vapor Pressure greater than 1.5 psia and less than 11.1 psia</u> Design and equip the storage vessel with the following vapor loss control device, properly installed, in good working order and in operation: A floating roof, consisting of a pontoon type or double-deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.17.17, 15.16.19 through 15.16.25.
5.17.16 VOC	NWCAA 580.32 (12/13/89)	<u>High Vapor Pressure Volatile Organic Compound Storage Tanks</u> The storage tank shall meet the internal floating roof equipment specifications and maintenance requirements of 40 CFR 60 Subpart Kb.	

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.17 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) and 63.655(a) & (g) (6/30/10) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) and 61.356(k) (10/17/00), which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(i) and (ii) (10/8/97), and 60.115b(a)(2) & (a)(3) (12/14/00) NWCAA 104.2 (8/9/12)	Internal Floating Roof Operation The internal floating roof shall rest or float on the liquid surface at all times except when it must be supported by the leg supports during (i) the initial fill, (ii) after the vessel has been completely emptied, and (iii) when the vessel is completely emptied before being subsequently refilled. When the floating roof is resting on the leg supports, filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. If the internal floating roof is not resting on the surface, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, repair the items or empty and remove the storage vessel from service within 45 days. If a failure detected during inspections cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, a 30-day extension may be requested. Such a request must document that alternate storage capacity is unavailable and specify a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible	Annually, conduct a visual inspection of the internal floating roof and seal system through manholes and roof hatches. The inspection shall document any conditions where: • the floating roof is not resting on the VOL surface • there is liquid other than water accumulated on the floating roof • a seal is detached or there are holes or tears in the seal fabric Keep a record of each inspection that includes the tank number, date and any defects discovered. Defects shall be repaired within 45 days of discovery or the tank taken out of service. A delay of repair extension may be utilized for up to 30 days with appropriate documentation justifying the delay. Submit in the Periodic Report the date and description of any defects found and corrective action taken. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable that repair was completed as soon as possible. The periodic report shall be submitted no later than 60 days after the end of each 6-month period when any compliance exceptions occur.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.17.18 VOC	NWCAA 580.33 & 580.34 (12/13/89)	<u>Openings and Seal Condition</u> All openings not related to safety are to be sealed with suitable closures. All seals are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears, or other openings.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Term 5.16.19.
5.17.19 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) and 63.655(a) (6/30/10) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) and 61.356(k) (10/17/00) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(i) (10/8/97), 60.113b(a)(4) & (5) (8/11/89), 60.115b(a)(2) (12/14/00) NWCAA 104.2 (8/9/12)	<u>Internal Inspection - Openings and Seals</u> If, during the inspection after degassing, the internal floating roof has defects, the primary seal or seal fabric has holes, tears, or other openings, the gaskets no longer closes off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10% open area, repair as necessary so that none of these conditions exist before refilling the storage vessel with VOL.	Visually inspect the internal floating roof, the primary seal, the gaskets, the slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least every ten years. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification. Keep records of each inspection identifying the storage vessel, the inspection date, and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). If the inspection after degassing finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects, a report shall be furnished to the NWCAA on periodic reports. The report shall identify the storage vessel and the reason it did not meet the specifications, and list each repair made.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.20 HAP	40 CFR 63 Subpart CC 63.647(8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(iv) (10/8/97) NWCAA 104.2 (8/9/12)	Covers or Lids Over Openings Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification.
5.17.21 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(v) (10/8/97) NWCAA 104.2 (8/9/12)	Automatic Bleeder Vents Equip with a gasket and close at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.22 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(vi) (10/8/97) NWCAA 104.2 (8/9/12)	Rim Space Vents Equip with a gasket and set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification
5.17.23 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(vii) (10/8/97) NWCAA 104.2 (8/9/12)	Sampling Well Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification.

Oily Wastewater, Collection, Storage and Treatment			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.17.24 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(viii) (10/8/97) NWCAA 104.2 (8/9/12)	Column Supporting Fixed Roof Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification
5.17.25 HAP	40 CFR 63 Subpart CC 63.647 (8/18/95) which references 40 CFR 61 Subpart FF 61.351 (9/10/90) which references 40 CFR 60 Subpart Kb 60.112b(a)(1)(ix) (10/8/97) NWCAA 104.2 (8/9/12)	Gasketed Sliding Cover Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal inspection of the vessel. If inspection shows that the floating roof has defects including, but not limited to, improper gasketing or unsealed openings, repair the defects prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification

5.18. Petroleum Storage Tanks/Vessels

Internal Floating Roof (IFR) Storage Tanks/Vessels

Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47, and 48

40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable

Additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)

Tanks 24, 40, 49, 50, 71, 72, 73 and 74

40 CFR 60 Subpart Kb, NWCAA 560 and 580

Additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)

Tanks 11, 12, 13, 15, 16, 19, 20, 23, 29 and 33

40 CFR 63 Subpart CC Group 2

Fixed Roof Storage Tanks (no IFR)

Tanks 28, 30, 32, 34, 37, 38 and 70

40 CFR 63 Subpart CC Group 2 Applicable

Miscellaneous Tankfarm Requirements

MACT Equipment leaks (40 CFR 63 Subpart CC)

Table 5-18 Petroleum Storage Tanks/Vessels

Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47 & 48 40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable With additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.18.1 VOC	NWCAA Section 560 (4/14/93)	<u>Storage of Organic Liquid with a True Vapor Pressure greater than 1.5 psia and less than 11.1 psia</u> Design and equip the storage vessel with the following vapor loss control device, properly installed, in good working order and in operation: A floating roof, consisting of a pontoon type or double-deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.4 through 5.18.7.
5.18.2 VOC	NWCAA 580.32 (12/13/89)	<u>High Vapor Pressure Volatile Organic Compound Storage Tanks</u> The storage tank shall meet the internal floating roof equipment specifications and maintenance requirements of 40 CFR 60 Subpart Kb or similar control.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.4 through 5.18.7.
5.18.3 VOC	NWCAA 580.33 and 580.34 (12/13/89)	<u>Openings and Seal Condition</u> All openings not related to safety are to be sealed with suitable closures. All seals are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears, or other openings.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.4 through 5.18.7.

Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47 & 48 40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable With additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.18.4 HAP	40 CFR 63 Subpart CC 63.646 (6/30/10) which references 40 CFR 63 Subpart G 63.119(b)(3) (12-21-06), 63.120(a)(2)(i) & (a)(4) (1/17/97) NWCAA 104.2 (8/9/12)	<u>Seal Coverage – Annual Hatch Inspection</u> A seal system shall be in place that completely covers the annular space between the floating roof and the storage vessel wall, except for when necessary repairs are being made. There should be no holes, tears, or other openings in the seal, seal fabric, or the seal envelope.	Annually, conduct a visual inspection of the internal floating roof and seal system through manholes and roof hatches. The inspection shall document any conditions where: • the floating roof is not resting on the VOL surface • there is liquid accumulated on the floating roof • a seal is detached or there are holes or tears in the seal fabric • Keep a record of each inspection that includes the tank #, date and any failures discovered. Failures shall be repaired within 45 days of discovery or the tank taken out of service. A delay of repair extension may be utilized for up to 60 days with appropriate documentation justifying the delay. Submit in the Periodic Report documentation of any failures discovered during the inspection. The report shall include the date of inspection, vessel identification, description of each failure and the nature and date of each repair. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable and that repair was completed as soon as possible.

Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47 & 48 40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable With additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.18.5 HAP	40 CFR 63 Subpart CC 63.646 (6/30/10) and 63.655(g)(2)(ii) & (h)(2)(i) (6/30/10) which references 40 CFR 63 Subpart G 63.119(b)(3) (12-21-06), 63.120(a)(2)(ii), (a)(5) and (a)(6) (1/17/97) NWCAA 104.2 (8/9/12)	<u>Seal Coverage – Internal Inspection</u> The primary seal shall completely cover the annular space between the floating roof and the storage vessel wall. There should be no holes, tears, or other openings in the seal, seal fabric, or the seal envelope.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal visual inspection of the vessel. If the inspection shows that the floating roof has failures including but not limited to, holes, tears or other openings in a seal or seal fabric, repair prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification. Submit in the Periodic Report documentation of any failures discovered during the inspection. The report shall include the date of inspection, vessel identification, description of each failure and the nature and date of each repair. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable and that repair was completed as soon as possible.

Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47 & 48 40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable With additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.18.6 HAP	40 CFR 63 Subpart CC 63.646(f) (6/30/10) which references 40 CFR 63 Subpart G 63.119(b)(4) (12-21-06) NWCAA 104.2 (8/9/12)	<u>Roof Openings – Internal Inspection</u> Except for automatic bleeder vents and rim space vents, each opening in the roof shall have a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal visual inspection of the vessel. If the inspection shows that the floating roof has failures including but not limited to, holes, tears or other openings in a seal or seal fabric, repair prior to refilling. Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification. Submit in the Periodic Report documentation of any failures discovered during the inspection. The report shall include the date of inspection, vessel identification, description of each failure and the nature and date of each repair. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable and that repair was completed as soon as possible.

Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 17, 18, 21, 22, 25, 26, 27, 31, 41, 42, 43, 44, 45, 46, 47 & 48 40 CFR 63 Subpart CC Group 1, NWCAA 560 and 580 Applicable With additional OAC requirements for Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 (OAC 562d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.18.7 HAP	40 CFR 63 Subpart CC 63.646 (6/30/10) which references 40 CFR 63 Subpart G 63.119(b)(1) & (b)(2) (12-21-06) NWCAA 104.2 (8/9/12)	Roof Floating on Surface The floating roof shall be floating on the liquid surface at all times except when it must be supported by the leg supports during, initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as possible. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.	*Directly Enforceable* Keep records of periods when the floating roof is resting on the leg supports.
Internal Floating Roof Tanks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14 **- Additional OAC 562d Requirements -**			
5.18.8 General	OAC 562d Condition 1and 2 (7/9/12)	Benzene concentrate from the light reformate splitter tower shall only be stored in Tanks 1 through 10, or Tank 14. Transfers of the benzene concentrate from the light reformate splitter tower between any of Tanks 1 through 10, or Tank 14 shall be conducted only to facilitate maintenance or inspection of one or more of the tanks.	*Directly Enforceable* Maintain a record of all transfers of benzene concentrated light reformate into and out of these storage tanks. This record shall include the tank number, and the date and volume of each transfer. If a transfer of benzene concentrated light reformate occurs between Tanks 1 through 10, or Tank14, document if the transfer was required to facilitate maintenance or inspection of one of the tanks.

Internal Floating Roof Tanks 24, 40, 49, 50, 71, 72, 73 and 74 40 CFR 60 Subpart Kb, NWCAA 560 and 580 With additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Note: 40 CFR 60 General Provisions included in Section 3 apply to these affected facilities.			
5.18.9 VOC	40 CFR 60 Subpart Kb 60.112b(a)(1)(ii) (10/8/97), 60.113b(a)(2) (8/11/89) and 60.115b(a)(2) & (a)(3) (4/8/87) as modified by 40 CFR 63 Subpart CC 63.640(n)(8)(v) (10/28/09) NWCAA 104.2 (8/9/12)	<u>Seal Coverage – Annual Inspection</u> A seal system shall be in place that completely covers the annular space between the floating roof and the storage vessel wall, except for when necessary repairs are being made as provided in 40 CFR 60.113b(a)(2). There should be no holes, tears, or other openings in the seal, seal fabric, or the seal envelope.	Annually, conduct a visual inspection of the internal floating roof and seal system through manholes and roof hatches. The inspection shall document any conditions where: • the floating roof is not resting on the VOL surface • there is liquid accumulated on the floating roof • a seal is detached or there are holes or tears in the seal fabric Keep a record of each inspection that includes the tank #, date and conditions observed (including any failures discovered). Failures shall be repaired within 45 days of discovery or the tank taken out of service. A delay of repair extension may be utilized for up to 60 days with appropriate documentation justifying the delay. Submit in the Periodic Report the date and description of any failures found and corrective action taken. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable that repair was completed as soon as possible.

Internal Floating Roof Tanks 24, 40, 49, 50, 71, 72, 73 and 74 40 CFR 60 Subpart Kb, NWCAA 560 and 580 With additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.18.10 VOC	40 CFR 60 Subpart Kb 60.113b(a)(4) and (a)(5) (8/11/89), and 60.115b(a)(2) and (a)(4) (4/8/87) as modified by 40 CFR 63 Subpart CC 63.640(n)(8)(v) (10/28/09) NWCAA 104.2 (8/9/12)	Seal Coverage – Internal Inspection The primary seal shall completely cover the annular space between the floating roof and the storage vessel wall. There should be no holes, tears, or other openings in the seal, seal fabric, or the seal envelope.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal visual inspection of the vessel. If the inspection shows that the floating roof has failures including but not limited to, holes, tears or other openings in a seal or seal fabric, repair prior to refilling. Keep a record of each inspection that includes the tank number, date and conditions observed Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification. Submit in the Periodic Report the date and description of any failures found and corrective action taken. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable that repair was completed as soon as possible.

Internal Floating Roof Tanks 24, 40, 49, 50, 71, 72, 73 and 74 40 CFR 60 Subpart Kb, NWCAA 560 and 580 With additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.18.11 VOC	40 CFR 60 Subpart Kb 60.112b (a)(1)(ii)(B) through (a)(1)(ix) (10/8/97), 60.113b(a)(4) & (5) (8/11/89), 60.115b(a)(2) & (4) (4/8/87) as modified by 40 CFR 63 Subpart CC 63.640(n)(8)(v) (10/28/09) NWCAA 104.2 (8/9/12)	Roof Openings – Internal Inspection Except for automatic bleeder vents and rim space vents, each opening in the non-contact roof shall have a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, columns wells, ladder wells, sample wells, and stub drains, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gaps) except when the device is in use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed.	Each time the vessel is emptied and degassed, and at least once every 10 years, conduct an internal visual inspection of the vessel. If inspection shows that the floating roof has failures including, but not limited to, improper gasketing or unsealed openings, repair prior to refilling. Keep a record of each inspection that includes the tank number, date and conditions observed Notify the NWCAA in writing at least 30 days prior to refilling. If the inspection is unplanned, the notification may be made verbally at least 7 days prior to refilling followed immediately by written notification. Submit in the Periodic Report the date and description of any failures found and corrective action taken. The report shall include any decision to use a delay of repair extension and documentation that alternate storage capacity was unavailable that repair was completed as soon as possible.
5.18.12 VOC/HAP	40 CFR 60 Subpart Kb 60.116b(c) and (e) (10/15/03) NWCAA 104.2 (8/9/12)	Maximum True Vapor Pressure Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.	Calculate the maximum true vapor pressure (MTVP) using known Reid Vapor Pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product. Maintain records of the calculated MTVP for each tank.

Internal Floating Roof Tanks 24, 40, 49, 50, 71, 72, 73 and 74 40 CFR 60 Subpart Kb, NWCAA 560 and 580 With additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
5.18.13 VOC	NWCAA 560 (4/14/93)	Storage of Organic Liquids with a True Vapor Pressure greater than 1.5 psia and less than 11.1 psia Design and equip the storage vessel with the following vapor loss control device, properly installed, in good working order and in operation: A floating roof, consisting of a pontoon type or double-deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.9 through 5.18.11
5.18.14 VOC	NWCAA 580.32 (12/13/89)	High Vapor Pressure Volatile Organic Compound Storage Tanks The storage tank shall meet the internal floating roof equipment specifications and maintenance requirements of 40 CFR 60 Subpart Kb.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.9 through 5.18.11
5.18.15 VOC	NWCAA 580.33 and 580.34 (12/13/89)	Openings and Seal Condition All openings not related to safety are to be sealed with suitable closures. All seals are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears, or other openings.	*Directly Enforceable* Follow the monitoring, recordkeeping and reporting requirements of Permit Terms 5.18.9 through 5.18.11

Internal Floating Roof Tanks 24, 40, 49, 50, 71, 72, 73 and 74 40 CFR 60 Subpart Kb, NWCAA 560 and 580 With additional OAC requirements for Tanks 40 (OAC 897a), 49 (OAC 620b), 72, 73, and 74 (OAC 527d)			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Internal Floating Roof Tank 40 - Additional OAC 897a Requirements -			
5.18.16 General	OAC 897a Condition 1 (7/9/12)	Maintain a record of Tank 40 turnovers.	Maintain records for Tank 40 that include; the number of turnovers per calendar year, and periods of time including dates that each type of liquid was stored.
Internal Floating Roof Tank 49 **- Additional OAC 620b Requirements -**			
5.18.17 General	OAC 620b Condition 1 (7/9/12)	Maintain a record of Tank 49 turnovers.	Maintain records for Tank 49 that include; the number of turnovers per calendar year, and periods of time including dates that each type of liquid was stored.
Internal Floating Roof Tanks 72, 73 and 74 **- Additional OAC 527d Requirements -**			
5.18.18 VOC	OAC 527d, Condition 13, 14 and 15 (7/9/12)	The storage tanks shall be used to store only gasoline or diesel, and No more than two of the three tanks shall contain gasoline at any given time.	Maintain records for each tank that include; tank dimensions, capacity, number of turnovers per calendar year, and periods of time including dates that each type of liquid was stored.

Internal Floating Roof Tanks 11, 12, 13, 15, 16, 19, 20, 23, 29, and 33 **Fixed Roof Tanks: 28, 30, 32, 34, 37, 38, and 70** 40 CFR 63 Subpart CC Group 2			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.18.19 VOC/HAP	40 CFR Subpart CC 63.646 (6/30/10) which references 40 CFR 63.119(a)(3) which references 40 CFR 63.123(a) (1/17/97) NWCAA 104.2 (8/9/12)	Dimensions and Capacities Keep readily accessible records of the dimensions and capacities of each Group 2 storage vessel.	Maintain records at the facility with dimensions and capacities.

Tankfarm - Equipment in HAP Service			
Permit Term	**Citation**	**Description**	**Monitoring / Recordkeeping / Reporting**
Note: 40 CFR 63 General Provisions included in Section 3 apply to these affected facilities.			
5.18.20 HAP	40 CFR 63 Subpart CC 63.648 (8/18/98) which references 40 CFR 60 Subpart VV (6/2/08) NWCAA 104.2 (8/9/12)	<u>MACT for Equipment Leaks</u> Monitor components in HAP service for leaks, repair leaks in a timely manner, and report results semi-annually in accordance with 40 CFR 60 Subparts VV. Applicable components include pumps, valves, pressure relief devices, sampling systems, open-ended lines, flanges, and connectors. Affected facilities may include individual compressors.	Conduct a LDAR program in accordance with AOP Section 6.3 Follow 40 CFR 60 Appendix A Method 21

5.19. Stationary Internal Combustion Engines

Table 5-19 Stationary Internal Combustion Engines

<table>
<tr><th colspan="4">Emergency Use, Compression Ignition, Internal Combustion Engines, ≤ 500 hp, Constructed on or after June 12, Model Years 2007 and Later.</th></tr>
<tr><th>Permit Term</th><th>Citation</th><th>Description</th><th>Monitoring/Recordkeeping/Reporting</th></tr>
<tr><td colspan="4">Two 157 hp Emergency Diesel Generators (91-GEN-P1E, 91-GEN-P2E)
Twelve 230 hp Emergency Diesel Generators (91-GEN-P3E, 91-GEN-P4E, 91-GEN-P5E, 91-GEN-P6E, 91-GEN-P7E, 91-GEN-P8E, 91-GEN-P10E, 91-GEN-P21E, 91-GEN-P26E, 91-GEN-P30E, 91-GEN-EPLJ, 91-GEN-SPARE)
Two 470 hp Emergency Diesel Generators (91-GEN-MCR1E and 91-GEN-MCR2E)</td></tr>
<tr><td colspan="4">Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to these affected facilities.</td></tr>
<tr><td>5.19.1
General</td><td>40 CFR 60 Subpart IIII 60.4200(a)(2)(i), 60.4205(b), 60.4207(b), and 60.4211(a) & (c) (6/28/11)
40 CFR 63 Subpart ZZZZ 63.6590(c)(6) (8/20/10)
NWCAA 104.2 (6/9/11)</td><td>Comply with the emission standards in 60.4202(a)(2), which refers to the new non-road engine standards of 40 CFR 89.112 and 89.113.
<table>
<tr><th>Engine size - 2007 and later model years</th><th>Emission Limit (g/hp-hr)</th></tr>
<tr><td>100-173 hp (Tier 3)</td><td>3.0 NMHC+NOx
3.7 CO, 0.22 PM</td></tr>
<tr><td>174-301 hp (Tier 3)</td><td>4.0 NMHC+NOx
2.6 CO, 0.15 PM</td></tr>
<tr><td>302–603 hp (Tier 3)</td><td>4.0 NMHC+NOx
2.6 CO, 0.15 PM</td></tr>
</table>
Diesel fuel must meet the requirements of 40 CFR 80.510(b) including a sulfur content not to exceed 15 ppmw.
An engine subject to NSPS shall meet the requirements 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII.</td><td>Install, configure, operate, and maintain the engine according to the manufacturer's emission-related specifications and written instructions.
In accordance with 60.4210(f), a permanent EMISSION CONTROL INFORMATION label shall be attached to each engine that meets the labeling requirements of 40 CFR 1039.135(b) including but are not limited to; manufacture's name, engine manufactured month and year, EPA standardized family (tier) and power category. The label shall state; "ULTRA LOW SULFUR FUEL ONLY"'.</td></tr>
</table>

Emergency Use, Compression Ignition, Internal Combustion Engines, ≤ 500 hp, Constructed on or after June 12, Model Years 2007 and Later.			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.19.2 General	40 CFR 60 Subpart IIII 60.4211 (f) 60.4214(b) (6/28/11) 40 CFR 63 Subpart ZZZZ 63.6590(c)(6) (8/20/10) NWCAA 104.2 (6/9/11)	Maintenance checks and readiness testing is limited to 100 hours per year. The engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, is prohibited.	Maintain a record of the operation of each engine in emergency and non-emergency service recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

<table>
<tr><th colspan="4">Emergency Use, Compression Ignition, Internal Combustion Engines, > 500 hp, Constructed on or after December 19, 2002, Model Years 2007 and Later.</th></tr>
<tr><th>Permit Term</th><th>Citation</th><th>Description</th><th>Monitoring/Recordkeeping/Reporting</th></tr>
<tr><th colspan="4">1,356 hp Emergency Diesel Generator (40-2835)</th></tr>
<tr><td colspan="4">Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to the affected facility.</td></tr>
<tr><td>5.19.3
General</td><td>40 CFR 60 Subpart IIII 60.4200(a)(2)(ii), 60.4205(b), 60.4207(b), and 60.4211(a) & (c) (6/28/11)
40 CFR 63 Subpart ZZZZ 63.6590(b)(1) (8/20/10)
NWCAA 104.2 (6/9/11)</td><td>Comply with the emission standards in 60.4202(a)(2), which refers to the new non-road engine standards of 40 CFR 89.112 and 89.113.
<table>
<tr><td>Engine size - 2007 and later model years</td><td>Emission Limit (g/hp-hr)</td></tr>
<tr><td>> 603 hp (Tier 2)</td><td>6.4 NMHC+NOx
2.6 CO, 0.15 PM</td></tr>
</table>
Diesel fuel must meet the requirements of 40 CFR 80.510(b) including a sulfur content not to exceed 15 ppmw.
The source does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, except for initial notification.</td><td>Install, configure, operate, and maintain the engine according to the manufacturer's emission-related specifications and written instructions.
In accordance with 60.4210(f), a permanent EMISSION CONTROL INFORMATION label shall be attached to each engine that meets the labeling requirements of 40 CFR 1039.135(b) including but are not limited to; manufacture's name, engine manufactured month and year, EPA standardized family (tier) and power category. The label shall state; "ULTRA LOW SULFUR FUEL ONLY"'.</td></tr>
</table>

Emergency Use, Compression Ignition, Internal Combustion Engines, > 500 hp, Constructed on or after December 19, 2002, Model Years 2007 and Later.			
Permit Term	**Citation**	**Description**	**Monitoring/Recordkeeping/Reporting**
5.19.4 General	40 CFR 60 Subpart IIII 60.4211 (f) 60.4214(b) (6/28/11) NWCAA 104.2 (6/9/11)	Maintenance checks and readiness testing is limited to 100 hours per year. The engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, is prohibited.	Maintain a record of the operation of each engine in emergency and non-emergency service recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

<table>
<tr><th colspan="4">Fire Pump, Compression Ignition, Internal Combustion Engines ≤ 500 hp, Constructed on or after June 12, 2006 for Model Years 2009 and Later.</th></tr>
<tr><th>Permit Term</th><th>Citation</th><th>Description</th><th>Monitoring/Recordkeeping/Reporting</th></tr>
<tr><th colspan="4">175 hp, diesel-fired, fire water pump (40-2835)</th></tr>
<tr><td colspan="4">Note: 40 CFR 60 and 63 General Provisions included in Section 3 apply to the affected facility.</td></tr>
<tr><td>5.19.5
General</td><td>40 CFR 60 Subpart IIII 60.4200(a)(2)(ii), 60.4205(c), 60.4207(b), and 60.4211(a) & (c) (6/28/11)
40 CFR 63 Subpart ZZZZ 63.6590(c)(7) (8/20/10)
NWCAA 104.2 (6/9/11)</td><td>Diesel fired fire pumps shall comply with the emission standards in Table 4 to Subpart IIII.
<table>
<tr><td>Engine size - 2009 and later model years</td><td>Emission Limit (g/hp-hr)</td></tr>
<tr><td>175 -300 hp</td><td>3.0 NMHC+NOx
0.15 PM</td></tr>
</table>
Diesel fuel must meet the requirements of 40 CFR 80.510(b) including a sulfur content not to exceed 15 ppmw.
An engine subject to NSPS shall meet the requirements 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII.</td><td>Install, configure, operate, and maintain the engine according to the manufacturer's emission-related specifications and written instructions.
In accordance with 60.4210(c)(3), a permanent label shall be attached to each engine that meets the applicable labeling requirements for that engine.</td></tr>
</table>

SECTION 6 SPECIFICALLY APPLICABLE COMMON REQUIREMENTS

Section 6 of this AOP contains requirements that are common to various emission units at the source. Section 6.1 states the monitoring, recordkeeping and reporting requirements for visual emissions from emission units at the refinery. The requirements specified in Section 6.3 are applicable to the applicable process unit components in VOC/HAP service as listed in Section 5 of the AOP. Section 6.3 is applicable to newly constructed process units that were required to meet enhanced monitoring provisions included in their Orders of Approval to Construct (OAC).

The requirements specified in the "Citation" column, and incorporated herein by reference, are federally enforceable unless identified as "state only". "State only" requirements are not enforceable by EPA or citizens under the CAA. The "Description" column is a brief description of the applicable requirements for informational purposes only and is not enforceable. Periodic or continuous monitoring requirements (including testing) are specified in the "Monitoring, Recordkeeping and Reporting" column, which identifies monitoring, recordkeeping and reporting (MR&R) obligations the source must perform as required by WAC 173-401-605(1) and 615(1) and (2) or the underlying requirement. MR&R obligations do not apply to insignificant emission units.

The requirements in the MR&R column labeled "*Directly Enforceable"* are legally enforceable requirements added under the NWCAA's "gap-filling" authority. Other requirements not labeled "*Directly Enforceable*" are brief descriptions of the regulatory requirements for information purposes, and are not enforceable. Unless the text of the MR&R column is specifically identified to be directly enforceable, the language of the cited regulation takes precedence over a paraphrased requirement.

6.1. Opacity Monitoring Recordkeeping and Reporting

Permit Term 6.1

Directly Enforceable

Stationary combustion units burning oil, visually observe stacks on a daily basis to qualitatively assess whether emissions are visible. The frequency may be reduced to weekly if no visible emissions are observed for thirty consecutive days. The permittee shall revert to daily observations of individual stacks if any visible emissions are noted during the observation. Daily quantitative assessments are not required when oil burning is conducted for the purpose of testing or training and does not exceed four hours per calendar month, per emission unit.

For combustion units burning gaseous fuels and process units, including the calciners, incinerators, tail gas units, and baghouses: visually observe stacks monthly to qualitatively assess whether emissions are visible. The frequency may be reduced to quarterly if no visible emissions are observed for six consecutive months. The permittee shall revert to monthly observations of individual stacks if any visible emissions are noted during the observation. If visible emissions are observed, emissions shall be reduced to zero as soon as possible. If emissions cannot be reduced to zero, the permittee may monitor by Ecology Method 9A no later than 24 hours after detection. If Ecology Method 9A monitoring demonstrates that emissions are below the applicable opacity standard, no further action is required until the next monthly visual observation. If Ecology Method 9A monitoring demonstrates that emissions are above the applicable opacity standard, take action to reduce emissions below the standard and perform daily monitoring using Ecology Method 9A thereafter until opacity is shown to be less than the applicable opacity standard. Otherwise visual emissions shall be considered in excess of the opacity standard. Record observation results for stacks with visible emissions and any related equipment or operational failure, the occurrence dates and times, actions taken, and the type of fuel burned. Record that an observation was performed, with date, time, background conditions, and identification of the observer. Keep records of all observations available for inspection.
Note, condensed water vapor (steam) is not considered a visual emission

6.2. Cumulative Particulate and SO_2 Limit

Permit Term	Citation	Description	Monitoring, Recordkeeping and Reporting
6.2 PM & SO_2	OAC 211c Conditions 1 and 2 (9/18/12)	Cumulative Particulate and SO_2 Limit Particulate emissions shall not exceed 60 tons per calendar month, and sulfur dioxide emissions shall not exceed 2,354 pounds per hour, calendar month average, as a cumulative total from the following emission units. (a) Crude Heater (10-1401) (b) South Vacuum Heater (10-1451) (c) North Coker Charge Heater (12-1401-01) (d) South Coker Charge Heater (12-1401-02) (e) Naphtha HDS Charge Heater (11-1401) (f) Naphtha HDS Stripper Reboiler (11-1402) (g) #1 Reformer Heater (11-1403:1406) (h) #1 Diesel HDS Charge Heater (13-1401) (i) #1 Diesel HDS Stabilizer (13-1402) (j) #1 Hydrogen Plant North Reforming Furnace (14-1401-01) (k) #1 Hydrogen Plant South Reforming Furnace (14-1401-02) (l) Hydrocracker 1st Stage Reactor Heater, (R-1) (15-1401) (m) Hydrocracker 2nd Stage Reactor Heater (R-4) (15-1402) (n) Hydrocracker 1st Stage Fractionator Reboiler (15-1451) (o) Hydrocracker 2nd Stage Fractionator Reboiler (15-1452) (p) Sulfur Recovery Complex Incinerator (17-1481) (q) Low Pressure Flare (r) High Pressure Flare (s) #1 and #2 Calciners (Stack #1)	Maintain a monthly record of particulate (ton/calendar month) and sulfur dioxide (lb/hour, calendar month average) emissions. The record shall include emissions from each subject emission unit, the cumulative total for all subject emissions units, and the basis for estimating the emission rates. The monthly record shall be available for review by the NWCAA within 30 days after the close of the reported calendar month.

6.3. Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV

Table 6-1 Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.1	As referenced; 40 CFR 60 Subpart VV 60.482-2, 60.482-9(d), 60.485(b), 60.486(b), (c) & (e), 60.487(c) & (e) (11/16/07) Also as modified by specifically applicable Permit Terms in Section 5 NWCAA 104.2 (8/9/12)	Pumps in Light Liquid Service without Dual Mechanical Seals If there are visible indications of liquids dripping from the pump seal, monitor the pump within 5 days or designate that a leak is detected, *except* when the pump was monitored during the previous week and found to be less than the leak definition. Monitor equipment according to specifically applicable **leak definition**. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected *except* for units with a leak definition of 2,000 ppm. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair shall include, when practical, but not limited to, tightening the packing gland nuts and ensuring that the seal flush is operating at design pressure and temperature. Delay of repair will be allowed in accordance with term 6.3.8.	**Weekly** Conduct visual inspections of each pump for indications of liquids dripping from the pump seal. **Monthly** Conduct instrument monitor using Method 21. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. When a leak is detected, record the information as required in 60.486. Report semi-annually items listed in 60.487(c). Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.2	As referenced; 40 CFR 60 Subpart VV 60.482-2(d), 60.485(c), 60.486(b), (c), (e), (h), 60.487(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Pumps in Light Liquid Service with Dual Mechanical Seals and a Barrier Fluid System Operate the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or route barrier fluid degassing reservoir vent to a process or fuel gas system or closed vent system to a control device, or purge the barrier fluid into a process stream with zero VOC emissions to the atmosphere, or equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device. The barrier fluid system is in heavy liquid service or not in VOC service. Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Check each sensor daily or equip the sensor with an audible alarm. Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If there are indications of liquids dripping from the pump seal, or the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. Repair a leak as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	**Weekly** Conduct visual inspections of each pump for indications of liquids dripping from the pump seal. If the sensor is not equipped with an audible alarm, check sensor daily. A leak is detected by the visual indication of liquids dripping as a leak or instrument monitor using Method 21. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. When a leak is detected, record the information as required in 60.486. Report semi-annually items listed in 60.487(c). Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.3	As referenced; 40 CFR 60 Subpart VV 60.482-3, 60.485(b), 60.486(h), 60.487(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Compressors Equipped with Seal System and Barrier Fluid</u> Operate the seal system with a barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or, purge the barrier fluid into a process stream with zero VOC emissions to the atmosphere. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Check each sensor daily or equip the sensor with an audible alarm. Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9 or if recasting of the distance piece or replacement of the compressor are the only options available for repair. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	If the sensor is not equipped with an audible alarm, check sensor daily and record. The design criterion that indicates failure of the seal system, barrier fluid or both must be recorded and kept readily accessible. An explanation of the design criterion and any changes to the criterion (and reasons for the changes) must be kept as well. When a leak is detected, record the information as required in 60.486. Report semi-annually items listed in 60.487(c). Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.4	As referenced; 40 CFR 60 Subpart VV 60.482-4 (12/14/00), 60.485 (c), 60.486(a), 60.487(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Pressure Relief Devices Except during pressure releases, each applicable pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. Any pressure relief device routed to the fuel gas system or equipped with a closed vent system a control device is exempt from this requirement. Any pressure relief device equipped with a rupture disk upstream of the pressure relief device is exempt from this requirement, provided that after each release a new rupture disk is installed as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9.	For pressure relief devices not routed to the fuel gas system or a closed vent system/control device, and without a rupture disk, if a release occurs, monitor the pressure relief device no later than 5 calendar days after the release. For pressure relief devices required to comply with this condition, record a list of equipment identification numbers in a log. Also record the date of each compliance test, the background level measured during the compliance test, and the maximum instrument reading. Submit a semi-annual report with the facts explaining each delay of repair as per 60.482-9, and the dates of process unit shutdowns which occurred within the semi-annual reporting period. Report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. Follow 40 CFR 60 Appendix A Method 21
6.3.5	As referenced; 40 CFR 60 Subpart VV 60.482-5 60.485(b) 60.486(e) (11/16/07) NWCAA 104.2 (8/9/12)	Sampling Connection Systems Each applicable sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system (except for in situ sampling systems and sampling systems without purges). Gases displaced during sample container filling are not required to be collected or captured. Purged process fluid must be returned directly to the process line; or collected and recycled to a process; or, transported to a control device that complies with the requirements of 60.482-10, or collected and transported to a waste management unit subject to 40 CFR 63 Subpart G, or a treatment, storage, or disposal facility submit to 40 CFR 262, 264, 265, or 266, or a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste.	The permittee shall maintain a list of identification numbers for equipment subject to the requirements of this condition. Follow 40 CFR 60 Appendix A Method 21.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.6	As referenced; 40 CFR 60 Subpart VV 60.482-6 60.486(e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Open-ended Valves or Lines</u> Each applicable open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve that seals the open end at all times except during operations requiring process fluid flow or as provided in 60.482-6(a)(1). Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall remain closed at other times. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt. Likewise, open-ended valves or lines containing materials which would polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system is exempt.	For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers for equipment subject to the requirements of this condition.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.7	As referenced; 40 CFR 60 Subpart VV 60.482-8 60.485(b) 60.486(b), (c) and (e) 60.487(c) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors</u> If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, within 5 days, eliminate the visual, audible, olfactory, or other indication of potential leak or monitor the leak. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each detected leak. First attempts at repair include, but are not limited to, (1) tightening of bonnet bolts, (2) replacement of bonnet bolts, (3) tightening of packing gland nuts; and (4) injection of lubricant into lubricated packing.	When a leak is detected, record the information required in 40 CFR 60.486(c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers for equipment subject to this requirement.. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. Report semiannually, the facts explaining each delay of repair as per 60.482-9, and the dates of process unit shutdowns which occurred within the semi-annual reporting period. Follow 40 CFR 60 Appendix A Method 21.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.8	As referenced; 40 CFR 60 Subpart VV 60.482-9 (11/16/07) 60.486 (c)(5) & (6) (11/16/07) 60.487(c)(vii) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Delay of Repair</u> Delay of repair of applicable equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair shall occur before the end of the next process unit shutdown. Delay is also allowed for equipment isolated from the process and which does not remain in VOC service. Valves: Delay of repair will be allowed if (1) it is demonstrated that purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (2) when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10. Delay of repair beyond a process unit shutdown will be allowed if valve assembly replacement is necessary, valve assembly supplies have been depleted, and supplies had been sufficiently stocked before they were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.	Record each equipment found leaking, “repair delayed” and reason for delay if greater than 15 days, signature of owner/operator or designate whose decision is was that repair could not be effected without a shutdown, expected date of repair if greater than 15 days, dates of process unit shutdowns. Monitoring to verify repair must occur within 15 days after startup of the process unit. Report semiannually, the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.9	As referenced; 40 CFR 60 Subpart VV 60.482-7, 60.483-2, 60.485, 60.487(c), (d) and (e) (11/16/07) As modified by specifically applicable OAC terms in Section 5 NWCAA 104.2 (8/9/12)	Standards for Valves in Gas and Light Liquid Service and Alternative Standards for Valves – Skip Period Leak Detection and Repair Monitor valves according to the sustainable skip period program calculating leak rates on a unit-by-unit basis. Monitor equipment according to specifically applicable **leak definition** to determine leak rates on a unit-by-unit basis. A leak is defined as an instrument reading of 10,000 ppm or greater *except* for units subject to leak definitions of 500 or 1,000 ppm. Make a "first attempt" at repair for any valve within **5 days** after each leak is detected. The first attempt at repair shall be made no later than 5 calendar days after each detected leak. First attempts at repair include, but are not limited to; (1) Tightening of bonnet bolts, (2) Replacement of bonnet bolts, (3) Tightening of packing gland nuts; and (4) Injection of lubricant into lubricated packing. When a leak is detected, it shall be repaired as soon as practicable, but not later than **15 calendar days** after it is detected, except as provided in 40 CFR 60.482-9. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.	Instrument monitor valves on a monthly schedule in accordance with 60.482-7. The facility may elect to follow a less frequent monitoring schedule using the criteria: At process units that have less than 2.0% leaking valves for 2 consecutive months, monitor each valve once every quarter, beginning with the next quarter. After 2 consecutive quarterly leak detection periods with the percent leaking less than or equal to 2.0%, monitor each valve once every 2 quarters. After 5 consecutive semi-annual leak detection periods with the percent of valves leaking is less than or equal to 2.0%, monitor each valve once every 4 quarters. Facility must return to a more frequent monitoring schedule if a process unit on a quarterly, semi-annual or annual schedule has a leak percentage greater than or equal to 2% in any single detection period, monitor valves every month to return to the skip period. The leak percentage shall be determined as noted in term 6.3.11. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. Submit a semi-annual report including the appropriate items in 60.487(c). Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.10	As referenced; 40 CFR 60 Subpart VV 60.482-7(a) (11/16/07) As modified by specifically applicable OAC terms in Section 5 NWCAA 104.2 (8/9/12)	New gas/vapor service or light liquid service valves: Valves that begin operation after the initial startup date for the process unit must be monitored; • For the first time within **30 days** after the startup period to ensure proper installation, or • If the valves on the process unit are monitored in accordance with 60.483–2, count the new valve as leaking when calculating the percentage of valves leaking as described in 60.483–2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first, *Except* for a valve that replaces a leaking valve or as provided in paragraphs (f), (g), and (h) of this section, 60.482–1(c), and 60.483–1 and 60.483–2.	See term 6.3.9.
6.3.11	As referenced; 40 CFR 60 Subpart VV 60.485(h) (11/16/07) As modified by specifically applicable OAC terms in Section 5 NWCAA 104.2 (8/9/12)	Calculation of percent leak rate: Determine compliance with 60.483–2 as follows: The percent of valves leaking shall be determined using: $\%V_L = (V_L/V_T) * 100$ Where: $\%V_L$= Percent leaking valves V_L= Number of valves found leaking V_T= The sum of the total number of valves monitored	The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored. The number of valves leaking shall include valves for which repair has been delayed. Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service. If the process unit has been subdivided in accordance with 60.482–7(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups. The total number of valves monitored does not include a valve monitored to verify repair.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.12	As referenced; 40 CFR 60 Subpart VV 60.482-10 (a), (d), (e), & (m) (12/14/00) NWCAA 104.2 (8/9/12)	Standards for Closed vent systems and control devices: Flares used to comply with this subpart shall comply with the requirements of 60.18 for flares.	Follow Permit Terms 5.13.6 through 5.13.10 (flares)
6.3.13	As referenced; 40 CFR 60 Subpart VV 60.482-10 (f)-(m) (12/14/00) and 60.486 (d) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Inspection of Closed Vent Systems Conduct annual visual inspections for visible, audible, or olfactory indications of leaks on hard-piping. Conduct annual instrument monitoring using Method 21 on ductwork using a leak definition of 500 ppm. Leaks shall be repaired as soon as practicable with the first attempt at repair no later than 5 days. Repairs shall be completed within 15 days, unless a delay of repair is utilized. Collection systems under a vacuum are exempt from monitoring. Equipment that is designated as difficult or unsafe to inspect must be identified and a written plan in place for inspection. Equipment designated as difficult to inspect must not exceed 3% of the total number of equipment in the system.	Keep the following records; For visual inspections or monitoring events during which no leaks are detected, a record the inspection date, and a statement that no leaks were detected. If a leak is detected; record the monitoring instrument and operator identification numbers, the leaking equipment identification number, the date the leak was detected, the leak value in ppm, the date of each attempt at repair, and the repair methods used. If a delay of repair is utilized; record the reason for the delay and the signature of the person whose decision it was that repair could not done without a process shutdown, the expected date of successful repair, the dates of process unit shutdowns that occurred while the equipment was unrepaired, and the date of successful repair. Identification of all parts of the closed vent system that are designated as difficult or unsafe to inspect, an explanation, and the plan for inspecting that equipment. Follow 40 CFR 60 Appendix A Method 21
6.3.14	As referenced; 40 CFR 60 Subpart VV 60.486 (b) & (c) (11/16/07) NWCAA 104.2 (8/9/12)	Maintain records for equipment found leaking. When each leak is detected, attach a weatherproof and readily visible identification, marked with the equipment identification number to the leaking equipment. Identification on equipment except valves may be removed after it has been repaired.	When each leak is determined, record the instrument and operator identification numbers and equipment identification number, date of leak detection and each attempt at repair, repair methods applied for each attempt, instrument leak reading, and date of successful repair of leak.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VV			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.3.15	As referenced; 40 CFR 60 Subpart VV 60.486(e) (11/16/07) NWCAA 104.2 (8/9/12)	Maintain records for equipment subject to this subpart.	The following information pertaining to all equipment subject to the requirements in 60.482–1 to 60.482–10 shall be recorded: (1) A list of identification numbers (2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 60.482–2(e), 60.482–3(i) and 60.482–7(f). (ii) The designation of equipment as subject to the requirements of 60.482–2(e), 60.482–3(i), or 60.482–7(f) shall be signed by the owner or operator. (3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482–4. (4)(i) The dates of each compliance test as required in 60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test. (5) A list of identification numbers for equipment in vacuum service. (6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with 60.482–1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.
6.3.16	As referenced; 40 CFR 60 Subpart VV 60.485(d) (11/16/07) 60.486(j) (11/16/07) NWCAA 104.2 (8/9/12)	Process Units Not in VOC Service Each piece of equipment shall be tested unless the owner or operator demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10% by weight.	To demonstrate that a process unit is not in VOC service, either follow (1) procedures that conform to the general methods in ASTM E-260, E-68, E-69 (incorporated by reference in 40 CFR 60.7), or, (2) demonstrate that the organic compounds are considered by the EPA to have negligible photochemical reactivity, or, (3) use engineering judgment to estimate the VOC content, if a piece of equipment has not been shown previously to be in service. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

6.4. Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa

Table 6-2 Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.1	As referenced: 40 CFR 60 Subpart VVa 60.482-2a(a), (b) & (c), 60.485a(b), 60.486a(a), (b), (c) & (e) and 60.487a(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Pumps in Light Liquid Service without Dual Mechanical Seals Monitor each pump monthly to detect leaks. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump. Visually inspect each calendar week. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected. If there are indications of liquids dripping from the pump seal, follow either of these two procedures: (This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading was less than 2,000 ppm and the pump was not repaired since that monitoring event) (i) Monitor the pump within 5 days. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected. (ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection or by eliminating the visual indications of liquids dripping. When a leak is detected, it shall be repaired as soon as practicable, with a first attempt at repair within 5 days. The repair shall be complete within 15 days, except as provided in 60.482-9a. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monitor each pump monthly to detect leaks by the methods specified in 60.485a (b). Each calendar week visually inspect each pump for indications of liquids dripping from the pump seal. For each monitoring event, record: (i) Monitoring instrument identification (ii) Operator identification (iii) Equipment identification (iv) Date of monitoring (v) Instrument reading When a leak is detected, record the information listed in 60.486a(c) in a log. For all equipment subject to this permit term, record in a log in a readily accessible location the information required in 60.486a(e). Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.2	As referenced: 40 CFR 60 Subpart VVa 60.482-2a(b), (c) & (d), 60.485a(b), 60.486a(a), (b), (c), (e), (h) and 60.487a(a), (b),(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pumps in Light Liquid Service, With Dual Mechanical Seals Including A Barrier Fluid System</u> Operate the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or equip the dual mechanical seal system with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 60.482–10a; or equip with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. The barrier fluid system should be in heavy liquid service or not in VOC service. Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. When a leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached. The identification may be removed after it has been repaired.	Weekly, visually inspect each pump for leaks. A. Monitor the pump within 5 days as specified in 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected. B. Designate the visual indications of liquids dripping as a leak. Check each sensor daily or equip the sensor with an audible alarm. Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion that indicates failure, a leak is detected. When a leak is detected by monitoring as per procedure A, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482–9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section. If the sensor indicates a leak, the leak shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor. A designated leak as per procedure B shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping. When a leak is detected, record the information listed in 60.486a(c). For all equipment subject to this permit term, record in a log in a readily accessible location the information required in 60.486a(e). Submit semiannual reports with information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.3	As referenced: 40 CFR 60 Subpart VVa 60.482-2a (e), 60.485a(b) & (c), 60.486a(a), (c) & (e) and 60.487a(a), (b),(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pump Designated for No Detectable Emissions</u> Any pump that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump: (1) Has no externally actuated shaft penetrating the pump housing, (2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background, and (3) Is tested for compliance initially upon designation, annually, and at other times requested by the NWCAA.	Monitor each pump initially, annually, and at other times as requested to detect leaks by the methods specified in 60.485a (b). For all equipment subject to this permit term, record in a log in a readily accessible location the identification numbers for equipment designated for no detectable emissions under the provision of 60.482-2a(e). The designation of equipment as subject to the requirements of 60.482-2a(e) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with the NWCAA that satisfies this requirement. Also record in the log the dates of each compliance test, the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test. Also record the information for monitoring instrument calibrations required by 60.486a(e)(8)(i) through (vi). Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.4	As referenced: 40 CFR 60 Subpart VVa 60.482-2a(c) & (g), 60.485a(b), 60.486a(a), (b), (c), (e) & (f) and 60.487a(a),(b),(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pumps Designated as Unsafe-to-Monitor</u> Any pump that is designated as an unsafe-to- monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if: (1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a); and, (2) has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs 60.482-2a(c)(2)(i) and (ii). Note that “repair” includes re-monitoring, by definition. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monitor each pump to detect leaks by the methods specified in 60.485a (b). When a leak is detected, record the information required in 60.486a (a), (c), and (e). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers for the pumps that are designated as unsafe-to-monitor, an explanation for each pump stating why the pump is unsafe-to-monitor, and the plan for monitoring each pump. Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.5	As referenced: 40 CFR 60 Subpart VVa 60.482-3a, 60.486a(a),(b), (c), (e) & (h) and 60.487a(a), (b),(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Compressors</u> Equip each compressor with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere. Operate the seal system with a barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or, equip with a barrier fluid system degassing reservoir routed to a process or fuel gas system or connected by a closed vent system to a control device, or, purge the barrier fluid into a process stream with zero VOC emissions to the atmosphere. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Check each sensor daily or equip the sensor with an audible alarm. Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. Note that “repair” includes re-monitoring, by definition. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	When a leak is detected, record the information listed in 60.486a (a) and (c) in a log and keep for two years in a readily accessible location. For all equipment subject to this permit term, record in a log in a readily accessible location the information required in 60.486a(e) For equipment designated for no detectible emissions, the design criterion must be recorded in a log and kept readily accessible. An explanation of the design criterion and any changes to the criterion (and reasons for the changes) must be kept as well. Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.6	As referenced: 40 CFR 60 Subpart VVa 60.482-4a, 60.485a(c) 60.486a(e) and 60.487a(a), (b),(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pressure Relief Devices</u> Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. Any pressure relief device routed to the fuel gas system or equipped with a closed vent system a control device is exempt from these requirements. Any pressure relief device equipped with a rupture disk upstream of the pressure relief device is exempt from this requirement, provided that after each release a new rupture disk is installed as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 60.482-9a.	Monitor to detect leaks by the methods specified in 60.485a (b). For pressure relief devices required to comply with this condition, record a list of equipment identification numbers in a log in a readily accessible location. Also record the date of each compliance test, the background level measured during the compliance test, and the maximum instrument reading. Also record the information for monitoring instrument calibrations required by 60.486a(e)(8)(i) through (vi) and record each release from a pressure relief device. Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.7	As referenced: 40 CFR 60 Subpart VVa 60.482-5a and 60.486(a) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Sampling Connection Systems</u> Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system (except for in situ sampling systems and sampling systems without purges). Gases displaced during sample container filling are not required to be collected or captured. Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied. Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured. Design and operate the system to either return the purged process fluid directly to the process line, or collect and recycle to a process, or, collect, store, and transport all the purged process fluid to a control device that complies with the requirements of 60.482-10a.	The permittee shall record in a log kept in a readily accessible location a list of identification numbers for equipment subject to the requirements of this condition.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.8	As referenced: 40 CFR 60 Subpart VVa 60.482-6a and 60.486(a) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Open-ended Valves or Lines Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve except open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset, and, open-ended valves or lines containing materials which would auto catalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system. The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall remain closed at other times. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt. Likewise, open-ended valves or lines containing materials which would polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system is exempt.	The permittee shall record in a log kept in a readily accessible location a list of identification numbers for equipment subject to the requirements of this condition.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.9	As referenced: 40 CFR 60 Subpart VVa 60.482-8a, 60.485a(b), 60.486a(a), (b), (c) & (e) and 60.487a(a), (b) & (c) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Pumps, Valves, and Connectors in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service</u> If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, either monitor within 5 days by the method specified in 60.485a(b) or eliminate the visual, audible, olfactory, or other indication of potential leak within 5 calendar days of detection. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each detected leak. First attempts at repair include, but are not limited to, the best practices described under 60.482-2a(c)(2) and 60.482-7a(e). Note that “repair” includes re-monitoring, by definition. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monitor to detect leaks by the methods specified in 60.485a (b). When a leak is detected, record the information required in 60.486a(a) and (c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers for equipment subject to this requirement. Also record the information for monitoring instrument calibrations required by 60.486a(e)(8)(i) through (vi). Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.10	As referenced: 40 CFR 60 Subpart VVa 60.482-9a and 60.487a(c)(2)(xi) & (3) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Delay of Repair</u> Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit. Delay is also allowed for equipment isolated from the process and which does not remain in VOC service. Valves and Connectors: Delay of repair will be allowed if (1) it is demonstrated that purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (2) when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 60.482-10a. Delay of repair beyond a process unit shutdown will be allowed if valve assembly replacement is necessary, valve assembly supplies have been depleted, and supplies had been sufficiently stocked before they were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. Pumps: Delay of repair will be allowed if (1) repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (2) repair is completed as soon as practicable, but not later than 6 months after the leak was detected. When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.	Report, in a semiannual report, the process unit identification and the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. Also report the dates of process unit shutdowns which occurred within the semiannual reporting period.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.11	As referenced: 40 CFR 60 Subpart VVa 60.482-7a(a)-(e), 60.485a(b), 60.486a(b),(c) & (e) and 60.487a(b), (c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	<u>Standards for Valves in Gas/Vapor Service and Light Liquid Service</u> Monitor each valve monthly to detect leaks. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored monthly, with the valve monitored for the first time within 30 days after the end of its startup period, Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. If an instrument reading of 500 ppm or greater is measured, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 60.482-9a. Note that “repair” includes re-monitoring, by definition. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to tightening of bonnet bolts, replacement of bonnet bolts, tightening of packing gland nuts, and injection of lubricant into lubricated packing. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monthly, monitor valves to detect leaks by the methods specified in 60.485a(b). For each monitoring event, record the information in 60.486a(a). When a leak is detected, record the information required in 60.486a(c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers and the monitoring instrument calibration information listed in 60.486a(e)8(i) through (vi). Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.12	As referenced; 40 CFR 60 Subpart VVa 60.482-7a, 60.483-2a, 60.485a, 60.487a(c), (d) and (e) (11/16/07) NWCAA 104.2 (8/9/12)	Standards for Valves in Gas and Light Liquid Service and Alternative Standards for Valves – Skip Period Leak Detection and Repair Monitor valves according to the sustainable skip period program calculating leak rates on a unit-by-unit basis. Monitor equipment according to specifically applicable **leak definition** to determine leak rates on a unit-by-unit basis. A leak is defined as an instrument reading of 10,000 ppm or greater *except* for units subject to leak definitions of 500 or 1,000 ppm. Make a "first attempt" at repair for any valve within **5 days** after each leak is detected. The first attempt at repair shall be made no later than 5 calendar days after each detected leak. First attempts at repair include, but are not limited to; (1) Tightening of bonnet bolts, (2) Replacement of bonnet bolts, (3) Tightening of packing gland nuts; and (4) Injection of lubricant into lubricated packing. When a leak is detected, it shall be repaired as soon as practicable, but not later than **15 calendar days** after it is detected, except as provided in 40 CFR 60.482-9. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.	Instrument monitor valves on a monthly schedule in accordance with 60.482-7a. The facility may elect to follow a less frequent monitoring schedule using the criteria: At process units that have less than 2.0% leaking valves for 2 consecutive months, monitor each valve once every quarter, beginning with the next quarter. After 2 consecutive quarterly leak detection periods with the percent leaking less than or equal to 2.0%, monitor each valve once every 2 quarters. After 5 consecutive semi-annual leak detection periods with the percent of valves leaking is less than or equal to 2.0%, monitor each valve once every 4 quarters. Facility must return to a more frequent monitoring schedule if a process unit on a quarterly, semi-annual or annual schedule has a leak percentage greater than or equal to 2% in any single detection period, monitor valves every month to return to the skip period. The leak percentage shall be determined as noted in term 6.4.11. The instrument shall be calibrated before use each day of use by Method 21. The following calibration gases shall be used: Zero air (less than 10 ppm of hydrocarbon in air); and a mixture of methane or n-hexane and air at a concentration of about 10,000 ppm methane or n-hexane *except* for units complying with a lower leak definition of shall calibrate using and a mixture of methane and air at a concentration of about the leak definition. Submit a semi-annual report including the appropriate items in 60.487(c). Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.13	As referenced: 40 CFR 60 Subpart VV 60.482-7a(f), 60.485a(b) & (c), 60.486a(a), (b), (c), & (e) and 60.487a(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Valves Designated for No Detectable Emissions Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 60.482-7a(a) if the valve: (1) Has no external actuating mechanism in contact with the process fluid, (2) Is operated with emissions less than 500 ppm above background, and (3) Is tested for compliance initially upon designation, annually, and at other times requested by the NWCAA. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monitor valves by the methods specified in 60.485a(b). Method 21 of appendix A-7 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. For each monitoring event, record the information in 60.486a(a). When a leak is detected, record the information required in 60.486a(c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers designated for no detectable emissions under 60.482-7a(f). The designation of equipment as subject to the requirements of 60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement. Also record in the log the dates of each compliance test, the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test. Record the monitoring instrument calibration information listed in 60.486a(e)8(i) through (vi). Submit semiannual reports that include the information specified in 60.487a. Follow 40 CFR 60 Appendix A Method 21
6.4.14	As referenced: 40 CFR 60 Subpart VVa 60.482-7a(g), 60.485a(b), 60.486a(a), (b), (c), (e) & (f) and 60.487a(b), (c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Valves Designated as Unsafe-to-Monitor Any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of 60.482-7a(a) if: (1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and (2) the owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. Leaking components shall be marked with a weatherproof tag identifying the component and leak date.	Monitor valves by the methods specified in 60.485a(b). For each monitoring event, record the information in 60.486a(a). When a leak is detected, record the information required in 60.486a(c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers and the monitoring instrument calibration information listed in 60.486a(e)8(i) through (vi). Record in a log in a readily accessible location a list of identification numbers for designated valves, an explanation for each valve stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve. Submit semiannual reports that include the information specified in 60.487a.

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.15	As referenced: 40 CFR 60 Subpart VVa 60.482-7a(h), 60.485a(b), 60.486a(a), (b), (c) & (e) and 60.487a(c) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Valves Designated as Difficult-to-Monitor Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of 60.482-7a(a) if: (1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface and (2) the process unit within which the valve is located either becomes an affected facility through modification or reconstruction and was construction on or before January 5, 1981; or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor and (3) the owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. When a leak is detected, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached. The identification on a valve may be removed after it has been monitored for 2 successive months and no leak has been detected during those 2 months.	Monitor valves by the methods specified in 60.485a(b). For each monitoring event, record the information in 60.486a(a). When a leak is detected, record the information required in 60.486a(c). For all equipment subject to this permit term, record in a log in a readily accessible location a list of identification numbers and the monitoring instrument calibration information listed in 60.486a(e)8(i) through (vi). Record in a log in a readily accessible location a list of identification numbers for designated valves, an explanation for each valve stating why the valve is difficult-to-monitor, and the plan for monitoring each valve. Submit semiannual reports that include the information specified in 60.487a.
6.4.16	As referenced; 40 CFR 60 Subpart VVa 60.482-10a (f)-(m) and 60.486a (d) & (e) (11/16/07) NWCAA 104.2 (8/9/12)	Inspection of Closed Vent Systems Conduct annual visual inspections for visible, audible, or olfactory indications of leaks on hard-piping. Conduct annual instrument monitoring using Method 21 on ductwork using a leak definition of 500 ppm. Leaks shall be repaired as soon as practicable with the first attempt at repair no later than 5 days. Repairs shall be completed within 15 days, unless a delay of repair is utilized. Collection systems under a vacuum are exempt from monitoring. Equipment that is designated as difficult or unsafe to inspect must be identified and a written plan in place for inspection. Equipment designated as difficult to inspect must not exceed 3% of the total number of equipment in the system.	Keep the following records; For visual inspections or monitoring events during which no leaks are detected, a record the inspection date, and a statement that no leaks were detected. If a leak is detected; record the monitoring instrument and operator identification numbers, the leaking equipment identification number, the date the leak was detected, the leak value in ppm, the date of each attempt at repair, and the repair methods used. If a delay of repair is utilized; record the reason for the delay and the signature of the person whose decision it was that repair could not done without a process shutdown, the expected date of successful repair, the dates of process unit shutdowns that occurred while the equipment was unrepaired, and the date of successful repair. Identification of all parts of the closed vent system that are designated as difficult or unsafe to inspect, an explanation, and the plan for inspecting that equipment. Follow 40 CFR 60 Appendix A Method 21

Leak Detection and Repair (LDAR) Program under 40 CFR 60 Subpart VVa			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.4.17	As referenced: 40 CFR 60 Subpart VVa 60.485a(d) and 60.486a(a) & (j) (11/16/07) NWCAA 104.2 (8/9/12)	Process Units Not in VOC Service Each piece of equipment shall be tested unless the owner or operator demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 % by weight.	To demonstrate that a process unit is not in VOC service, either follow (1) procedures that conform to the general methods in ASTM E-260-73,91,or 96, E-168-67,77, or 92, E169-63,77, or 93 (incorporated by reference in 40 CFR 60.17), or, (2) demonstrate that the organic compounds are considered by the EPA to have negligible photochemical reactivity, or, (3) use engineering judgment to estimate the VOC content, if a piece of equipment has not been shown previously to be in service. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

6.5. Boiler and Process Heater NESHAP

Table 6-3 40 CFR 63 Subpart DDDDD

40 CFR 63 Subpart DDDDD			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.5.1	40 CFR 63 Subpart DDDDD 63.7500(a), (e), Table 3 Line 1, 7505(a), 7510(e), 7515(d), 7530(d), 7540(a)(10), (a)(12), (a)(13) & (b), 7545(a), e(1) & (e)(8)(i), 7550(a), (b), Table 9, (c)(1), (c)(5)(i)-(iv), (xiv), & (xvii), (h)(3), 7555(a) (1/31/13)	Tune-Up – units with Continuous Oxygen Trim Conduct a tune-up of the process heater every 5 years. The initial tune-up shall be completed by January 31, 2016 for existing units, and upon startup for new units. Subsequent tune-ups shall be conducted no more than 61 months after the previous tune-up. If unit is not operating on the required date for a tune-up, conduct tune-up within 30 calendar days of startup. Conduct tune-up and maintain reports as per 40 CFR 63.7540(a)(10)(i)-(vi).	Submit a signed certification in the Notification of Compliance Status (NCS) in accordance with AOP Term 3.3.10 and 3.3.11 that indicates a tune-up was completed. Include a statement in the NCS, as applicable, "This facility complies with the initial tune-up according to the procedures in 63.7540(a)(10)(i) through (iv)." Include information discussed in 40 CFR 63.7545(e)(1). Submit a compliance report every five calendar years. If available, the compliance reports shall also be submitted electronically via CEDRI (www.epa.gov/cdx). The compliance report shall include, among other things, the date of the most recent tune-up and burner inspection; if applicable, a statement that no deviations occurred; and be certified by the Responsible Official.
6.5.2	40 CFR 63 Subpart DDDDD 63.7500(a), (e), Table 3 Line 3, 7505(a), 7510(e), 7515(d), 7530(d), 7540(a)(10), (a)(13) & (b), 7545(a), e(1) & (e)(8)(i), 7550(a), (b), Table 9, (c)(1), (c)(5)(i)-(iv), (xiv), & (xvii), (h)(3), 7555(a) (1/31/13)	Tune-Up – units without Continuous Oxygen Trim Conduct a tune-up of the process heater annually. The initial tune-up shall be completed by January 31, 2016 for existing units, and upon startup for new units. Subsequent annual tune-ups shall be conducted no more than 13 months after the previous tune-up. If unit is not operating on the required date for a tune-up, conduct tune-up within 30 calendar days of startup. Conduct tune-up and maintain as per 40 CFR 63.7540(a)(10)(i)-(vi).	Submit a signed certification in the Notification of Compliance Status (NCS) in accordance with AOP Term 3.3.10 and 3.3.11 that indicates a tune-up was completed. Include a statement in the NCS, as applicable, "This facility complies with the initial tune-up according to the procedures in 63.7540(a)(10)(i) through (iv)." Include information discussed in 40 CFR 63.7545(e)(1). Submit a compliance report every calendar year. If available, the compliance reports shall also be submitted electronically via CEDRI (www.epa.gov/cdx). The compliance report shall include, among other things, the date of the most recent tune-up and burner inspection; if applicable, a statement that no deviations occurred; and be certified by the Responsible Official.
6.5.3	40 CFR 63 Subpart DDDDD 63.7500(a), (e), Table 3 Line 4, 7505(a), 7510(e), 7530(e), 7545(a), e(1) & (e)(8)(ii), 7555(a) (1/31/13)	Energy Assessment or ISO 50001 energy management program for existing units: By January 31, 2016: Either conduct a one-time energy assessment performed by a qualified energy assessor meeting the requirements of Line 4 of Table 3 of 40 CFR 63 Subpart DDDDD, or operate under an energy management program compatible with ISO 50001.	Submit a signed certification in the Notification of Compliance Status (NCS) in accordance with AOP Term 3.3.10 and 3.3.11. If an energy assessment was completed, indicate that an energy assessment was completed and is an accurate depiction of the facility at the time of the assessment. Include information discussed in 40 CFR 63.7545(e)(1).

40 CFR 63 Subpart DDDDD			
Permit Term	**Citation**	**Description**	**Monitoring, Recordkeeping and Reporting**
6.5.4	40 CFR 63 Subpart DDDDD 63.7500(f), 63.7555(i) & (j) (1/31/13)	Startup and Shutdown Standards apply at all times the affected unit is operating except during periods of startup and shutdown during which time you must comply only with the work practice standard requirements.	Maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. Maintain records of the type and amount of fuels used during each startup and shutdown.

SECTION 7 INAPPLICABLE REQUIREMENTS

The regulations identified in this section do not apply to the Cherry Point Refinery as of the date of permit issuance.

Table 7-1 INAPPLICABLE REQUIREMENTS

Citation	Title	Basis
NWCAA Regulation		
NWCAA 320 – 321	General Requirements for Registration	The registration requirements do not apply to sources or emission units subject to Air Operating Permits
NWCAA 458	Incinerators – Wood Waste Burners	Facility does not have this source category.
NWCAA 465	Sulfuric Acid Plants	Facility does not have this source category.
NWCAA 466	Portland Cement Plants	Facility does not have this source category.
NWCAA 470	Fluorides – Forage	Facility does not have this source category.
NWCAA 480	Solid Fuel Burning Device	Facility does not have this source category.
NWCAA 504	Agricultural Burning	The facility does not perform this activity.
NWCAA 510	Incinerator Burning	Facility does not have this source category.
NWCAA 511	Refuse Burning – Time Restriction	Facility does not have this source category.
NWCAA 520.14	Gaseous Fuel Standards	Does not apply to sources that must comply with NWCAA 460
NWCAA 580.5	Bulk Gasoline Plants	Facility does not have this source category.
NWCAA 580.6	Gasoline Stations	Throughput threshold not met.
NWCAA 580.9	High Vapor Pressure VOC Storage in External Floating Roof Tanks	Facility does not have this source category.
NWCAA 590	Perchloroethylene Dry Cleaners	Facility does not have this source category.
State of Washington Regulations		
WAC 173-400-050(2)	Incinerator	Facility does not have this source category.
WAC 173-400-100 through 104	Registration	The registration requirements do not apply to sources or emission units subject to Air Operating Permits
WAC 173-400-105(6)	Change in Raw Materials or Fuels	This requirement does not apply to sources or emission units subject to Air Operating Permits
Chapter 173-430 WAC	Agricultural Open Burning	Facility does not have this source category.
Chapter 173-434 WAC	Solid Waste Incineration	Facility does not have this source category.

Citation	Title	Basis
Federal Regulations		
Standard of Performance for New Stationary Sources (NSPS)		
40 CFR 60 Subpart D	Performance Standards for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	All boilers at the refinery are subject to 40 CFR 60 Subpart Db that includes an exempt from Subpart D under §60.40b(j).
40 CFR 60 Subpart Da	Performance Standards for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After September 18, 1978.	There are no electric utility steam generating units at the refinery.
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	There are no 10-100 MMBtu/hour steam generating units at the refinery.
40 CFR 60 Subpart UU	Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture	There is no asphalt processing or handling equipment at the refinery.
40 CFR 60 Subpart GG	Standards of Performance for Stationary Gas Turbines	There are no combustion turbines at the refinery.
40 CFR 60 Subpart III	Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	Refinery does not operate any SOCMI operations.
40 CFR 60 Subpart NNN	Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	Refinery does not operate any SOCMI operations.
40 CFR 60 Subpart RRR	Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	Refinery does not operate any SOCMI operations.

Citation	Title	Basis
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		
40 CFR 61 Subpart Y	National Emission Standards for Benzene Emissions from Benzene Storage Devices	The refinery does not have the ability to the produce benzene products listed as applicable under Subpart Y §61.270.
40 CFR 61 Subpart BB	National Emission Standards for Benzene Emissions from Benzene Storage Vessels	The refinery does not have this source category.
National Emission Standards for Hazardous Air Pollutants for Source Categories (a.k.a. MACT)		
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry	40 CFR 63 Subpart F §63.100(j) exempts petroleum refining process units.
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	40 CFR 63 Subpart F §63.100(j) exempts petroleum refining process units.
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants From Equipment Leaks	40 CFR 63 Subpart F §63.100(j) exempts petroleum refining process units.
40 CFR 63 Subpart I	National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	The refinery is not subject to the Negotiated Regulations for Equipment Leaks.
40 CFR 63 Subpart Q	National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers	The refinery discontinued the use of chromium in their cooling towers in 1994.
40 CFR 63 Subpart OO	National Emissions Standards for Tanks	No other portion of the applicable sections of 40 CFR 63 references this section, as required.
40 CFR 63 Subpart QQ	National Emissions Standards for Surface Impoundments	No other portion of the applicable sections of 40 CFR 63 references this section, as required.
40 CFR 63 Subpart RR	National Emission Standards for Individual Drain Systems	No other portion of the applicable sections of 40 CFR 63 references this section, as required.
40 CFR 63 Subpart SS	National Emission Standards for Hazardous Air Pollutants for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process.	Refinery is not subject to any subpart that references the use of this subpart for air emission.
40 CFR 63 Subpart VV	National Emission Standards for Oil-water Separators and Organic-water Separators	No other portion of the applicable sections of 40 CFR 63 references this section, as required.

Citation	Title	Basis
40 CFR 63 Subpart EEE	National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Incinerators	Refinery does not own or operate Hazardous waste Incinerator, cement kiln, or aggregate kiln.
40 CFR 63 Subpart YYYY	National Emission Standards for Combustion Turbines	There are no combustion turbines at the refinery.