November 3, 2025

Shane LaCasse
CHS, Inc.
Laurel Refinery
803 Highway 212 South
P.O. Box 909
Laurel, Montana 59044-0909

Sent via email: shane.lacasse@chsinc.com

RE: Final Title V Operating Permit #OP1821-23

Dear Mr LaCasse:

DEQ prepared this Final Operating Permit #OP1821-23, for the CHS Laurel Refinery, located in Laurel, Montana.

This permit must be kept at the facility or a DEQ-approved location.

If you have any questions contact Craig Henrikson, the permit writer, as listed below.

For DEQ,

Eric Merchant, Supervisor
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Air, Energy, and Mining Division
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Craig Henrikson

Craig Henrikson, P.E.
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Robert Gallagher, US EPA Region VIII, Montana Office

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

AIR QUALITY OPERATING PERMIT #OP1821-23

Issued to: **CHS, Inc.**
Laurel Refinery
803 Highway 212 South
P.O. Box 909
Laurel, Montana 59044-0909

Administrative Amendment Application Received:	08/28/2025
Application Deemed Administratively Complete:	08/28/2025
Application Deemed Substantively Complete:	08/28/2025
Date of Decision:	10/01/2025
Effective Date:	11/01/2025
Expiration Date: (operating under Permit Shield)	09/28/2025
Complete Renewal Application Received:	06/09/2025
AFS Number: 030-013-0004A	

Permit Issuance and Appeal Processes: The Montana Department of Environmental Quality (DEQ) issues this permit as effective and final on November 1, 2025. This permit must be kept at the facility or a DEQ-approved location (Montana Code Annotated (MCA) Sections 75-2-217 and 218, Administrative Rules of Montana (ARM), ARM Title 17, Chapter 8, Subchapter 12, Operating Permit Program).

Montana Air Quality Operating Permit
Department of Environmental Quality

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix B of this permit have the meaning assigned to them in the referenced regulations.

Section I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: **CHS, Inc.**

Mailing Address: **P.O. Box 909, 803 Highway 212 South**

City: **Laurel** State: **Montana** Zip: **59044-0909**

Plant Location: **S½, Section 16, Township 2 South, Range 24 East, Yellowstone County**

Responsible Official: **Shane LaCasse**

Facility Contact Person: **Karen Kennah**

Primary SIC Code: **2911**

Nature of Business: **Petroleum Refining**

Description of Process: CHS operates a petroleum refinery in Laurel, Montana. The refining process distills crude oil using heat which separates the crude oil into various components. The refinery then cracks some of the heavier molecules by applying heat in the presence of a catalyst. These raw products are then treated in several ways to take out impurities. Finally, the proper liquids and additives are blended to create the desired product.

The major processing equipment includes:

- Crude Units and Naphtha Splitter
- Naphtha Hydrotreaters (NHT) (*previously Unifiners*)
- Platformer (Naphtha Reformer)
- Benzene Reduction Unit (BRU)
- Fluid Catalytic Cracking (FCC) Unit
- Alkylation/Butamer/Merox/Saturate Units
- Mild Hydrocracker (MHC) Unit
- Sulfur Recovery Units (SRUs) with Tailgas Treatment Units (TGTUs) and Tailgas Incinerators
- Ultralow Sulfur Diesel Unit
- Delayed Coker Unit
- Transfer Facilities (Truck Product Loading, Railcar Product Loading)
- Steam Generation Units
- Wastewater Treatment Units
- Miscellaneous Storage Tanks
- Sour Water Stripper Ammonia Combustor
- Flare Systems
- Hydrogen Plants
- Stationary Engines

Section II. SUMMARY OF EMISSION UNITS

The emission units regulated by this permit are the following (ARM 17.8.1211):

Emission Unit ID	Description	Pollution Control Device/Practice
EU001	Plant-wide and Multiple Emitting Unit Limitations • Limits and Conditions associated with MAQP 1821-05 • Plant-wide Fuel Gas Combustion Device Limitations • SIP Multiple Emitting Unit Limitations	MAQP Limits, Billings/ Laurel SO_2 Stipulation. CEMS on Refinery Fuel Gas system; NSPS J – all FG combustion devices, except NSPS Ja units
EU002	# 1 Crude Unit and Naphtha Stabilizer • # 1 Crude Unit Preheater (CV-HTR-1) • # 1 Crude Unit Main Heater (CV-HTR-2) • # 1 Crude Unit Vacuum Heater (CV-HTR-4) • Low Pressure Vapor Recovery Compressor (C-401)	LDAR – NSPS GGGa, MACT CC; MACT DDDDD NSPS Ja (CV-HTR-4) – H_2S in RFG only
EU003	# 2 Crude Unit • # 2 Crude Unit Main Heater (2CV-HTR-1) • # 2 Crude Unit Vacuum Heater (005HT0002))	LDAR – NSPS GGG, MACT CC, MACT DDDDD
EU004	• PDA Unit – SHUT DOWN	
EU005	Naphtha Hydrotreating Unit • NHT Charge Heater (H-8301) • NHT Reboiler Heater #1 (H-8302) • NHT Reboiler Heater #2 (H-8303) • NHT Splitter Reboiler Heater (H-8304) • Makeup Hydrogen Compressor (C-8302A) • Recycle Hydrogen Compressor (C-8302B)	LDAR – NSPS GGG, MACT CC MACT DDDDD MAQP limits – NHT Charge Heater Low NOx technology – NHT Charge Heater
EU006	Middle Distillate Unifiner – *SHUT DOWN*	

Emission Unit ID	Description	Pollution Control Device/Practice
EU007	Platformer Unit, including the Benzene Reduction Unit (BRU) • Platformer Heater (P-HTR-1) • Platformer Debutanizer Reboiler Heater (P-HTR-2) • Platformer Splitter Reboiler (P-HTR-3) • Benzene Reduction Unit Oily Water Sewer	LDAR – NSPS GGGa (BRU), MACT CC, Low NOx technology (Platformer Splitter Reboiler) NSPS Ja – Platformer Splitter Reboiler (H_2S in RFG only) NSPS QQQ (BRU) MACT UUU, DDDDD MAQP limits – Platformer Splitter Reboiler
EU008	Fluid Catalytic Cracking (FCC) Unit • FCC Charge Heater (FCC-Htr-1) • FCC Regenerator (FCC-VSSL-1)	LDAR – MACT CC, FCC Regenerator: SO2/NOx/CO CEMS and COMS; ESP (control device); NSPS J (PM, SO_2), NSPS Ja (CO), MAQP limits, MACT UUU; Billings/Laurel SO_2 Stipulation FCC Charge Heater: Low NOX Technology NSPS Ja, NOx CEM, MACT DDDDD, MAQP limits
EU009	Alkylation/Butamer/Merox/Saturate Units • Alkylation Unit Hot Oil Belt Heater (ALKY-HTR-1) • Group 1 Miscellaneous Process Vents (Alkylation Unit Butamer Stabilizer Off Gas and Disulfide Separator Off Gas)	LDAR – NSPS GGG MACT CC, DDDDD
EU010	Mild Hydrocracker (MHC) and Hydrogen Plant (100 Unit) • Reformer Heater (H-101) • Reformer Heater (H-102) • Reactor Charge Heater (H-201) • Fractionator Feed Heater (H-202) • Recycle Hydrogen Compressor (C-203) • Makeup Hydrogen Compressor (C-204A/B)	LDAR – NSPS GGG (Hydrogen Plant), NSPS GGGa (MHC, compressors), MACT CC MAQP Limits (heaters) Low NOx Technology (on heaters) H-102: NSPS Ja (NOx CEMS) CO Demonstrated with Stack Test
EU011	Zone D SRU and TGTU and TGI • Tail Gas Incinerator (INC-401)	MAQP Limits SO_2 CEMS Billings/ Laurel SO2 Stipulation NSPS Ja MACT UUU
EU012	Zone A #1 and #2 SRU feeding one TGTU and TGI • Tail Gas Incinerator (SRU-AUX-4)	SO_2 CEMS, Billings/ Laurel SO2 Stipulation NSPS J, QQQ (TGTU) MACT UUU

EU013	Steam Generation Units • Boiler #9 • Boiler #10 • Boiler #11 • Boiler #12	MAQP Limits LDAR – NSPS GGG (10 & 11), NSPS GGGa (12) Low NOx Technology (Boilers #10, #11, and #12) NSPS Db (10, 11 and 12), Ja (12 – H_2S in RFG only) MACT DDDDD CEMS: NOx, CO (10, 11, 12)
EU014	Tank Farm (non-Wastewater): • Refinery MACT I Group 1 Storage Vessels • Refinery MACT I Group 2 Storage Vessels • Refinery MACT I Exempt vessels – pressure vessels, not organic HAP, not refining	Internal and External Floating Roofs, Fixed Roofs LDAR (MACT CC, BACT, as applicable) NSPS Kb UU (as applicable) MAQP limits
EU015	Transfer Facilities • Asphalt Loading Heater #1 • Truck Product Loading Rack and VCU • Railcar Product Loading Rack and VCU • Railcar Gasoline Component Unloading	VCU (control device) on Light Product Truck Loading Rack and Railcar Loading Rack, LDAR – MACT CC, BACT Proper design and operating practices NSPS Ja, XX MACT CC (Loading rack), DDDDD MAQP limits
EU016	Wastewater Treatment Units • Separators API separators: T-23A/B, TK-3437, TK-3447 Separators – slop oil facilities: T-16, T-17, T-18 Dissolved gas flotation units: TK-3448, TK-3458 Other separators: TK-23, T-14 • Storage Vessels Wastewater: T-20, T-25, TK-25, TK-3436 Slop oil: TK-44, TK-118 Sour water: TK-128, TK-129 Foam/sludge: TK-3449, TK-3450, TK-3451 • Control Devices F-3401A/B/C Activated carbon beds 034IN0001 Wastewater Area Combustor	NSPS QQQ, Kb (as applicable) LDAR – BACT MACT CC
EU017	Flare Systems • Main Refinery Flare (FL-7202) • Zone E Coker Flare (FL-7201)	Flare – Control Device, flare gas recovery system Billings/ Laurel SO_2 Stipulation (Main Refinery Flare) Billings/Laurel SO_2 FIP NSPS Ja MACT CC LDAR - BACT
EU018	RCRA Units	Restrictions on Land Tillage (HSWA permit)

EU019	Cooling Towers • Cooling Towers #1, #2, #3 • Cooling Tower #5 • Cooling Tower #6 (Coker Cooling Tower) • Heat Exchange Systems associated with each cooling tower	MACT CC – heat exchange systems Mist eliminator (#6)
EU020	Saturate Gas Concentration Unit – *naphtha splitter consolidated with EU002*	
EU021	Ultra-Low Sulfur Diesel (ULSD) (900 Unit) and Hydrogen Plant (1000 Unit) • Reactor Charge Heater (H-901) • Fractionator Reboiler (H-902) • Reformer Heater (H-1001) • C-901A/B Compressor • C-902A/B Compressor	LDAR – NSPS GGG, MACT CC NSPS Ja (H-1001), QQQ MACT DDDDD MAQP limits Low NOx technology (heaters) CEMs: NOx (H-901, H-902, H-1001) and CO (H-1001)
EU022	Delayed Coker Unit • Coker Charge Heater (H-7501) • Coke Processing Operations • C-7601 compressor • Coke drum steam vent	LDAR – NSPS GGG, MACT CC NSPS QQQ MACT CC, DDDDD Reasonable precautions for coke processing Low NOx technology MAQP limits CEMS – CO (heater)
EU023	Zone E SRU, TGTU and TGI	NSPS J MACT UUU MAQP limits CEMs – SO2
EU024	Ammonia Combustor	SCR NSPS Ja MAQP limits CEMs – NOx, SO2
EU025	Hydrogen Plant #3 Hydrogen Reformer Heater (067HT0001)	SCR on Reformer Heater LDAR – NSPS GGGa, MACT CC NSPS – Ja, QQQ MACT – DDDDD MAQP limits CEMs – NOx, CO

EU026	Stationary Engines • Emergency Generators Admin 1 EG (021-GN-0204) Zone C DCS EG (024-SG-001) Zone E DCS EG (075-SG-001) CCB EG1 (002-SG-002) CCB EG2 (002-SG-003) Zone B DCS EG (004-SG-025) Westside Complex EG (002-SG-001) Zone D DCS EG (065-SG-003) Zone A DCS EG (004-SG-001) Truck Terminal EG (LrlTermGen) Admin 3 EG (021-GN-1031) • Diesel Fire Water Pump Engines East Fire Pump #1 (EG-2205) East Fire Pump #2 (EG-2206) Tank 134 East Pump (P-2207) Tank 134 West Pump (P-2208) West Diesel Pump (P-2204) • Emergency Plant Air Compressors Zone C Plant Air Compressor (024CO0064) Zone E Plant Air Compressor (026CO0004)	NSPS IIII , JJJJ MACT ZZZZ

Section III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211, 1212, and 1213).

A. Facility-Wide

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1	ARM 17.8.105	Testing Requirements	Testing Requirements	-------
A.2	ARM 17.8.106	Source Testing Protocol	Testing, Recordkeeping, and Reporting Requirements	-------
A.3	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.4	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.5	ARM 17.8.304(3)	Visible Air Contaminants	Opacity	60%
A.6	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.7	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-------
A.8	ARM 17.8.308(3)	Particulate Matter, Airborne	Reasonable Precaution, Construction and Demolition	20%
A.9	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E = 0.882 * H^{-0.1664}$ or $E = 1.026 * H^{-0.233}$

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.10	ARM 17.8.310	Particulate Matter, Industrial Processes	Particulate Matter	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$
A.11	ARM 17.8.322(4) and State Implementation Plan (SIP)	Sulfur Oxide Emissions, Sulfur in Fuel, Plant-wide	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.12	ARM 17.8.322(5) and SIP	Sulfur Oxide Emissions, Sulfur in Fuel, Plant-wide	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.13	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.14	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-------
A.15	ARM 17.8.324(1)	Hydrocarbon Emissions, Petroleum Products	65,000-Gallon Capacity	-------
A.16	ARM 17.8.324(2)	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-------
A.17	ARM 17.8.341	National Emission Standards for Benzene Waste Operations	All Applicable Provisions of 40 CFR 61 Subpart FF	-------
A.18	ARM 17.8.342	NESHAPs General Provisions	SSM Plans	Submittal
A.19	ARM 17.8.615	Firefighting Training Permit	Firefighting Requirements	
A.20	ARM 17.74.359	Asbestos	Asbestos	-------
A.21	40 CFR Part 68	Chemical Accident Prevention	Risk Management Plan	-------
A.22, A.23	40 CFR Part 51	SIP	SO_2	-------
A.24	40 CFR Part 51	SIP	Sulfur Bearing Gases	-------
A.25	40 CFR Part 51	SIP	Quantify Emissions	-------
A.26	40 CFR 63.643	Miscellaneous Maintenance Process Vent Provisions	VOCs	-------
A.27	40 CFR 63.658	Fenceline Monitoring	Benzene	-------
A.28	ARM 17.8.1212	Fuel Oil Combustion	Not Allowed	
A.29, A.30	40 CFR Part 51	SIP	Reporting Requirements	-------
A.31	ARM 17.8.1211(1)(c) and 40 CFR Part 98	Greenhouse Gas Reporting	Reporting	-------
A.32	ARM 17.8.1212	Reporting Requirements	Prompt Deviation Reporting	-------
A.33	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-------
A.34	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-------
A.35	ARM 17.8.1207	Reporting Requirements	Annual Certification	-------

Conditions

A.1. Pursuant to ARM 17.8.105, any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department,

provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

Compliance demonstration frequencies that list "as required by the Department" refer to ARM 17.8.105. In addition, for such sources, compliance with limits and conditions listing "as required by the Department" as the frequency, is verified annually using emission factors and engineering calculations by the Department's compliance inspectors during the annual emission inventory review; in the case of Method 9 tests, compliance is monitored during the regular inspection by the compliance inspector.

A.2. Pursuant to ARM 17.8.106, all emission source testing, sampling and data collection, recording analysis, and transmittal must be performed, maintained, and reported in accordance with the Montana Source Test Protocol and Procedures Manual (July 1994), unless alternate methods are approved by the Department.

A.3. Pursuant to ARM 17.8.304(1), CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.

A.4. Pursuant to ARM 17.8.304(2), CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.

A.5. Pursuant to ARM 17.8.304(3), during the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes.

A.6. Pursuant to ARM 17.8.308(1), CHS shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.

A.7. Pursuant to ARM 17.8.308(2), CHS shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.

A.8. Pursuant to ARM 17.8.308(3), CHS shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.

A.9. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, CHS shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable

emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment, calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):

$$E = 0.882 * H^{-0.1664}$$

For new fuel burning equipment (installed on or after November 23, 1968):

$$E = 1.026 * H^{-0.233}$$

Where H is the heat input capacity in million British Thermal Units (MMBtu) per hour and E is the maximum allowable particulate emission rate in pounds per MMBtu.

A.10. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, CHS shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter, calculated using the following equations:

For process weight rates up to 30 tons per hour:

$$E = 4.10 * P^{0.67}$$

For process weight rates in excess of 30 tons per hour:

$$E = 55.0 * P^{0.11} - 40$$

Where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour.

A.11. Pursuant to ARM 17.8.322(4), CHS shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per MMBtu fired, unless otherwise specified by rule or in this permit. This rule shall be interpreted to mean that no person shall burn solid, liquid, or gaseous fuels such that the aggregate sulfur content of all fuels burned within a plant during any day exceeds 1 pound of sulfur per MMBtu fired. The rule shall be interpreted to allow for a daily deviation of 0.1 pound of sulfur per million MMBtu fired. The rule shall be interpreted to allow the blending of all fuels burned in a plant during a given time period in determining the aggregate sulfur content for purposes of the rule, and it shall not be construed to require blending or physical mixing of fuels at any given furnace or heater within the plant complex (SIP).

A.12. Pursuant to ARM 17.8.322(5), CHS shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit. This rule shall be interpreted to mean that no person shall burn solid, liquid, or gaseous fuels such that the aggregate sulfur content of all fuels burned within a plant during any day exceeds 1 pound of sulfur per MMBtu fired. The rule shall be interpreted to allow for a daily deviation of 0.1 pound of sulfur per MMBtu fired. The rule shall be interpreted to allow the blending of all fuels burned in a plant during a given time period in determining the aggregate sulfur

content for purposes of the rule, and it shall not be construed to require blending or physical mixing of fuels at any given furnace or heater within the plant complex (SIP).

A.13. CHS shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit (ARM 17.8.322(5)).

A.14. Pursuant to ARM 17.8.324(3), CHS shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.

A.15. Pursuant to ARM 17.8.324(1), unless otherwise specified by rule or in this permit, CHS shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000-gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.

A.16. Pursuant to ARM 17.8.324(2), unless otherwise specified by rule or in this permit, CHS shall not use any compartment of any single or multiple-compartment oil-effluent water separator which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling of kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.

A.17. CHS shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements as required by 40 CFR 61 Subpart FF - National Emissions Standards for Benzene Waste Operations (ARM 17.8.341 and 40 CFR 61 Subpart FF).

A.18. Pursuant to ARM 17.8.302 and ARM 17.8.342, and 40 CFR 63.6, the owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan (if a plan is required by 40 CFR 63.6(e)(3) and the Table for General Provision Applicability of the appropriate subpart), meeting the requirements of 40 CFR 63.6, and must make the plan available upon request. In addition, if the startup, shutdown, and malfunction plan is subsequently revised, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for a period of 5 years after revision of the plan. 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 40 CFR 63.10(d)(5).

A.19. Pursuant to ARM 17.8.615, CHS shall apply for and comply with a Firefighter Training permit to conduct open burning for fire training purposes.

A.20. CHS shall comply with 40 CFR 61, Subpart M – NESHAP for asbestos. Further, pursuant to ARM 17.74.359, CHS shall comply with all the limitations and requirements of their Asbestos Abatement Annual Permit.

A.21. CHS shall submit a certification statement to DEQ that states CHS is in compliance with the requirements of 40 CFR 68, including registration and updates of their Risk Management Plan (40 CFR 68.150, 68.160 and 68.190).

A.22. CHS shall comply with all requirements of Exhibit A, and Attachments 1 and 2 of the sulfur dioxide control plan (EPA Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; the control plan was partially approved/partially disapproved by EPA on May 2, 2002, and May 22, 2003; parts of the requirement that were disapproved remain "State Only" along with those provisions intended to be "State Only" that were not submitted to EPA) (see Appendix E of this permit).

A.23. CHS shall comply with all requirements of Exhibit A-1 and corresponding attachments of the sulfur dioxide control plan (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only") (see Appendix E of this permit).

A.24. CHS shall utilize appropriate maintenance, repair, and operating practices to control emissions of sulfur bearing gases from minor sources such as ducts, stacks, valves, vents, vessels, and flanges which are not otherwise subject to Stipulation and Exhibit A (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

A.25. CHS shall use good engineering judgment and appropriate engineering calculations to quantify emissions from activities that are not otherwise addressed by the Stipulation and Exhibit A but are known to contribute to emissions from sources listed in Exhibit A, Section 1(B). In addition, CHS shall account for such emissions in determining compliance with all applicable emission limits contained in Exhibit A, Section 3 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

A.26. CHS shall comply with the miscellaneous maintenance process vent provisions of 40 CFR 63.643 as appropriate.

A.27. CHS shall comply with the fence line monitoring provisions of 40 CFR 63.658.

A.28. CHS shall no longer combust fuel oil in any combustion devices at the facility. Previous conditions restricting no combustion of fuel oil in these devices were removed because the facility physically no longer has the infrastructure in place to burn fuel oil (ARM 17.8.1212).

Reporting

A.29. CHS shall comply with all reporting requirements of Exhibit A and Attachment 1 of the plan (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

A.30. CHS shall comply with all reporting requirements of Exhibit A-1 of the sulfur dioxide control plan (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only").

A.31. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, CHS shall comply with requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting, as applicable (ARM 17.8.1211(1)(c), NOT an applicable requirement under Title V).

A.32. CHS shall promptly report deviations from permit requirements including those attributable to upset conditions, as upset is defined in the permit. To be considered prompt, deviations shall be reported to DEQ using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).

A.33. CHS shall maintain, under CHS's control, all records required for compliance monitoring as a permanent business record for at least 5 years. The records must be available at the plant site for inspection by the Department, EPA, and Yellowstone County Air Pollution Control Agency, and must be submitted to DEQ upon request (ARM 17.8.1212).

A.34. On or before February 15 and August 15 of each year, CHS shall submit to DEQ the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by February 15 of each year, CHS may submit a single report, provided that it contains all the information required by Section V.B & V.D. Per ARM 17.8.1207,

> *any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that,* ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

A.35. By February 15 of each year, CHS shall submit to DEQ the compliance certification required by Section V.B. The annual certification required by Section V.B must include a statement of compliance based on the information available which identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

> *any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that,* ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

B. EU001 –Multiple Emitting Unit Limitations

1. Limitations and Conditions Associated with MAQP #1821-05:

   a. Gas-Fired External Combustion Sources:

- # 1 Crude Heater
- Crude Preheater
- #1 Crude Vacuum Heater
- #2 Crude Heater
- #2 Crude Vacuum Heater
- Alkylation Unit Hot Oil Belt Heater
- Platformer Charge Heater (P-HTR-1)
- Platformer Debutanizer Heater
- #1 Road Oil/Asphalt Loading Heater
- 60 Tank Heater
- Boiler #9
- Boiler #10
- H-101 Zone D Hydrogen Plant Reformer Heater
- H-201 Reactor Charge Heater
- H-202 Fractionator Feed Heater
- NHT Reboiler Heater #1 (H-8302)
- NHT Reboiler Heater #2 (H-8303)
- NHT Splitter Reboiler Heater (H-8304)

b. FCC Unit (FCCU) Regenerator

c. Zone A Sulfur Recovery Unit Tail Gas Incinerator

d. Zone D Sulfur Recovery Unit Incinerator

e. Fugitive Equipment Leaks including all equipment as defined in 40 CFR 60 Subpart VV in VOC service

f. Wastewater sewers, separation, and treatment facilities

g. Cooling Tower Sources: #1, #2, #3, and #5

h. Loading facilities

- Light product truck rack and vapor combustion unit [excludes new facility permitted with MAQP #1821-27]
- Heavy Oil Truck Rack
- Heavy Oil Rail Rack

i. Storage tanks #2, 7, 12, 41, 47, 56, 60, 61, 62, 63, 66, 68, 70, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 86, 88, 91, 92, 93, 94, 95, 96, 100, 101, 102, 103, 104, 108, 109, 110, 111, 112, 113, 114, 117, 118, 120, 121, 122, 123, B-1, B-2, B-7, BP-2, firetk 2, firetk 3, and firetk 4.

2. Plant-Wide Fuel Gas Combustion Device Limitations (40 CFR 60 Subpart J) –

Includes NSPS Subpart J requirements for multiple fuel combustion devices. Other sections will contain specific applicability to Subpart J other than the facility-wide RFG requirements, or if the method of compliance with Subpart J is other than H_2S monitoring.

3. SIP Multiple Emitting Unit Limitations

(only includes SIP limitations that cover more than one emitting unit, individual emitting unit SIP limits are included under that emitting unit):

a. Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003

i. Refinery fuel oil combustion sources: #1 crude unit main heater

ii. Listed fuel gas-fired sources:

aa. HDS complex fuel gas-fired units:

- Reformer Heater (H-101),
- Reactor Charge Heater (H-201),
- Fractionator Heater (H-202),
- Zone D SRU incinerator stack (E-407 and INC-401)

bb. Pre-1990 fuel gas-fired units:

- #1 crude preheater (CV-HTR-1), #1 crude unit vacuum heater (CV-HTR- 4), #1 crude unit main heater (CV-HTR-2);
- #2 crude heater (2CV-HTR-1), #2 crude unit vacuum heater (2CV-HTR-2),
- Naphtha Hydrotreater:
    - NHT Reboiler Heater #1 (H-8302), *formerly #1 Naphtha Unifiner charge heater,*
    - NHT Reboiler Heater #2 (H-8303), *formerly #1 Naphtha Unifiner stripper heater,*
    - NHT Splitter Reboiler Heater (H-8304), *formerly Naphtha Unifiner splitter heater*
- Platformer charge heater (P-HTR-1), platformer debutanizer heater (P-HTR-2),
- FCC Charge Heater (FCC-Heater-1), Alkylation unit hot oil belt heater (ALKY-HTR-1),
- #1 fuel oil heater (CV-HTR-9), Boiler #9, and #1 asphalt loading heater

cc. Post-1990 listed fuel gas-fired unit:

- Boiler #10

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirement
B.1, B.12, B.13, B.26, B.27, B.28, B.29, B.30, B.32, B.33	MAQP #1821-05 Limitations: SO_2	2,980.3 ton/yr	Recordkeeping	Ongoing	Quarterly
B.2, B.12, B.13, B.26, B.27, B.28, B.29, B.30, B.32, B.33	MAQP #1821-05 Limitations: NO_x	999.4 ton/yr	Recordkeeping	Ongoing	
B.3, B.12, B.13, B.26, B.27, B.28, B.29, B.30, B.32, B.33	MAQP #1821-05 Limitations: CO	678.2 ton/yr	Recordkeeping	Ongoing	
B.4, B.12, B.13, B.14, B.26, B.27, B.28, B.29, B.30, B.32, B.33	MAQP #1821-05 Limitations: VOC	1,967.5 ton/yr	Recordkeeping	Ongoing	
B.5, B.12, B.13, B.26, B.27, B.28, B.29, B.32, B.33	MAQP #1821-05 Limitations: PM_{10}	152.2 ton/yr	Recordkeeping	Ongoing	
B.6, B.12, B.13, B.26, B.27, B.28, B.29, B.30, B.32, B.33	MAQP #1821-05 Limitations: PM	162.2 ton/yr	Recordkeeping	Ongoing	
B.7, B.13, B.15, B.17 B.18, B.19, B.21, B.22 B.23, B.24, B.25, B.26, B.27, B.28, B.29, B.31, B.32, B.33	SIP: SO_2 for listed fuel gas burning sources only	3,014.7 lb/3-hour Period	SO_2/H_2S CEMS, Sampling	Ongoing	
			Method 11	Annually	Semiannually
B.8, B.13, B.15, B.17, B.18, B.19, B.21, B.22 B.23, B.24, B.25, B.26, B.27, B.28, B.29,B.30, B.31, B.32, B.33	SIP: SO_2 for listed fuel gas burning sources only	24,117.6 lb/ Calendar Day	SO_2/H_2S CEMS, Sampling	Ongoing	Quarterly
			Method 11	Annually	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirement
B.9, B.13, B.15, B.17 B.18, B.19, B.21, B.22, B.23, B.24, B.25, B.26, B.27, B.28, B.29, B.31, B.32, B.33	SIP: SO_2 for listed fuel gas burning sources only	8,802,924 lb/ Calendar Year	SO_2/H_2S CEMS, Sampling	Ongoing	Quarterly
			Method 11	Annually	Semiannually
B.10, B.16, B.17, B.18, B.24, B.27, B.28, B.32, B.33	Refinery Fuel Gas	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually
B.11, B.16, B.17, B.18, B.23, B.24, B.26, B.27, B.28, B.32, B.33	H_2S in Refinery Fuel Gas	0.10 gr/dscf (161 ppm_{vd}) / 3-hour average and 0.05 gr/dscf (81 ppm_{vd}) / 12-month average	H_2S CEMS	Ongoing	Semiannually
			Method 11	Annually	

Conditions

B.1. MAQP #1821-05 Annual Limitations: SO_2 emissions shall not exceed 2,980.3 tons per year (ARM 17.8.749).

B.2. MAQP #1821-05 Annual Limitations: NO_x emissions shall not exceed 999.4 tons per year (ARM 17.8.749).

B.3. MAQP #1821-05 Annual Limitations: CO emissions shall not exceed 678.2 tons per year (ARM 17.8.749).

B.4. MAQP #1821-05 Annual Limitations: VOC emissions shall not exceed 1,967.5 tons per year (ARM 17.8.749).

B.5. MAQP #1821-05 Annual Limitations: PM_{10} emissions shall not exceed 152.2 tons per year (ARM 17.8.749).

B.6. MAQP #1821-05 Annual Limitations: PM emissions shall not exceed 162.2 tons per year (ARM 17.8.749).

B.7. CHS shall not cause or authorize total SO_2 emissions from refinery combustion sources and fuel gas-fired sources to exceed the limit of 3,014.7 pounds per 3-hour period (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 22, 2003).

B.8. CHS shall not cause or authorize total SO_2 emissions from refinery combustion sources and fuel gas-fired sources to exceed the limit of 24,117.6 pounds per calendar day

(Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 22, 2003).

B.9. CHS shall not cause or authorize total SO_2 emissions from refinery combustion sources and fuel gas-fired sources to exceed the limit of 8,802,924 pounds per calendar year (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 22, 2003).

B.10. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart J-Standards of Performance for Petroleum Refineries, as it applies to all fuel gas combustion devices that are not subject to 40 CFR 60 Subpart Ja (Originated from the consent decree and incorporated as part of MAQP #1821-11). Applicability to Subpart Ja is identified on a source-by-source basis within the permit.

B.11. CHS shall not cause or authorize hydrogen sulfide (H_2S) in refinery fuel gas burned in fuel combustion devices to exceed 0.10 grains of H_2S per dry standard cubic foot (161 parts per million, volumetric dry (ppm_{vd}) H_2S) per rolling 3-hour average or 0.05 grains of H_2S per dry standard cubic foot (81 ppm_{vd} H_2S) per 12-month average (ARM 17.8.749 and 40 CFR 60 Subpart J).

Compliance Demonstration

B.12. CHS shall monitor compliance with the annual MAQP #1821-05 limitations based on source type, pollutant, calculation basis (emission factors, estimated yield and conversion), and key parameters (fuel oil use, fuel gas use, process gas use, and Continuous Emissions Monitoring System (CEMS) data) (ARM 17.8.749).

1. Gas fired external combustion

   a. SO_2

      i. Calculation Basis: AP-42 Section 1-4 (7/98 revision) and complete conversion of fuel gas H_2S to SO_2
      ii. Key Parameters: Monthly fuel use (scf) per combustion unit and refinery fuel gas H_2S content from CEMS.

   b. NO_X, CO, PM_{10}/PM, VOC

      i. Calculation Basis: AP-42 Section 1-4 (7/98 revision)
      ii. Key Parameters: Monthly fuel use (scf) per combustion unit and monthly average fuel gas heat content.

2. Gas fired internal combustion

   a. SO_2

      i. Calculation Basis: AP-42 Section 1-4 (7/98 revision) and complete conversion of fuel gas H_2S to SO_2
      ii. Key Parameters: Monthly fuel use (scf) per combustion unit and fuel gas H_2S and Sulfur content

b. NO_X, CO

i. Calculation Basis: AP-42 Section 3-2 (10/96 revision)
ii. Key Parameters: Monthly fuel use (scf) per combustion unit and monthly average fuel gas heat content

c. VOC

i. Calculation Basis: AP-42 Section 3-2 (10/96 revision)
ii. Key Parameters: Monthly fuel use (scf) per combustion unit and monthly average fuel gas heat content

3. Boiler #10

a. SO_2

i. Calculation Basis: Complete conversion of fuel gas H_2S to SO_2
ii. Key Parameters: Monthly fuel use (scf) per combustion unit and refinery fuel gas H_2S content from CEMS

b. NO_X

i. Calculation Basis: NOx and O_2 CEMS, Emission factors based on most recent stack tests
ii. Key Parameters: NOx and O_2 CEMS, Reference Method 19, NO_X stack tests, monthly fuel use (scf)

c. CO

i. Calculation Basis: Emission factors based on most recent stack tests
ii. Key Parameters: CO stack tests, monthly fuel use (scf)

d. PM_{10}/PM

i. Calculation Basis: AP-42 Section 1-4 (7/98 revision)
ii. Key Parameters: Monthly fuel use (scf) and monthly average fuel gas heat content

e. VOC

i. Calculation Basis: Emission factors based on most recent stack tests
ii. Key Parameters: VOC stack tests, monthly fuel use (scf)

4. Zone D Combustion Sources (H-101, H-201, and H-202)

a. SO_2: Calculation Basis: CEMS data and methodology required in the Billings/Laurel SO_2 SIP

b. NOx

i. Calculation Basis: NO_x and O_2 CEMS, Emission factors based on most recent annual stack tests

ii. Key Parameters: NO_x stack tests, monthly fuel use (scf) per combustion unit

c. CO

i. Calculation Basis: CO and O_2 CEMS, Emission factors based on most recent annual stack tests
ii. Key Parameters: CO stack tests, monthly fuel use (scf) per combustion unit

d. PM_{10}/PM

i. Calculation Basis: AP-42 Section 1-4 (7/98 revision)
ii. Key Parameters: Monthly fuel use (scf) per combustion unit and monthly average fuel gas heat content

e. VOC

i. Calculation Basis: Emission factors based on most recent stack tests for sources burning refinery fuel gas. For sources firing only natural gas, the most current VOC stack test will be used to develop emission factors.

ii. Key Parameters: VOC stack test

5. Fugitive equipment leaks

a. SO_2, NOx, CO, PM_{10}/PM: Not applicable

b. VOC

i. Calculation Basis: EPA factors and NSPS and MACT control efficiencies (EPA-453/R-95-017)
ii. Key Parameters: Component counts by type and service

6. FCCU

a. SO_2: Calculation Basis: CEMS data and methodology required in CHS Consent Decree, NSPS Subpart J, and the Billings/Laurel SO_2 SIP.

b. NOx: Calculation Basis: CEMS data and methodology required in CHS Consent Decree, NSPS Subpart J, and FCCU Regenerator flue gas flow rate.

c. CO: Calculation Basis: CEMS data and methodology required in CHS Consent Decree and NSPS Subpart Ja, and FCCU Regenerator flue gas flow rate.

d. PM_{10}/PM

i. Calculation Basis: Annual stack test results
ii. Key Parameters: Monthly FCCU charge rate (bbl)

e. VOC

i. Calculation Basis: AP-42 Section 5.1 (1/95 revision) and assumed 98% control efficiency
ii. Key Parameters: Monthly FCCU charge rate (bbl)

7. Zone A SRU Incinerator

a. SO_2: Calculation Basis: CEMS data and methodology required in Billings/Laurel SO_2 SIP

b. NOx

i. Calculation Basis: Emission factors based on every 5-year stack tests
ii. Key Parameters: Every five-year NO_x stack test, monthly fuel use (scf)

c. CO, PM_{10}/PM, VOC

i. Calculation Basis: AP-42 Section 1-4 (7/98 revision)
ii. Key Parameters: Monthly fuel use (scf) and average fuel gas heat content

8. Zone D SRU Incinerator

a. SO_2: Calculation Basis: CEMS data and methodology required in Billings/Laurel SO_2 SIP

b. NOx

i. Calculation Basis: Emission factors based on annual stack tests
ii. Key Parameters: Annual NO_x stack test, monthly fuel use (scf)

c. CO, PM_{10}/PM, VOC: Not applicable – not a significant source

9. Wastewater

a. VOC

i. Calculation Basis: AP-42, Table 5.1-2 (1/95 rev.)
ii. Key Parameters: Monthly wastewater flow (gal) from Lab Information Management System (LIMS)

10. Cooling towers

a. VOC

i. Calculation Basis: AP-42, Section 5.1 (1/95 rev.)
ii. Key Parameters: Monthly cooling tower circulation (gal)

11. Loading facilities

a. NOx

i. Calculation Basis: VCU stack tests for lb NO_x/gal loaded
ii. Key Parameters: Monthly volume of materials loaded from yield accounting

b. CO

i. Calculation Basis: VCU stack tests for lb CO/gal loaded
ii. Key Parameters: Monthly volume of materials loaded from yield accounting

c. VOC

i. Calculation Basis: AP-42, Section 5.2-4 (1/95 rev.) and VCU stack tests for lb VOC/gal loaded
ii. Key Parameters: Monthly volume of material throughput from yield accounting, material property data (VP, MW, etc.)

12. Storage tanks

a. VOC

i. Calculation Basis: AP-42 Calculation Methods
ii. Key Parameters: Monthly volume of material throughput from yield accounting, material property data (VP, MW, etc.)

CHS shall utilize the established specific calculation methods for each source in determining compliance with the annual plant-wide emission limitations. If an improved calculation methodology is identified and approved by DEQ, the emission limitation for that pollutant(s) shall be reviewed and updated, if needed, before the new calculation method is utilized (ARM 17.8.749).

B.13. In addition to the testing required in each section, compliance monitoring for the emission limits applicable to the fuel gas combustion devices shall be based upon actual fuel burning rates and the emission factors developed from the most recent compliance source test, and/or available CEM data. Fuel flow rates, fuel heating value, production information and other data, as needed, shall be recorded for each emitting unit during the performance of the source tests in order to develop emission factors for use in the compliance determinations. New emission factors (subject to review and approval by DEQ) shall become effective within 60 days after the completion of a source test (ARM 17.8.749).

B.14. CHS may fire only natural gas in fuel gas combustion devices as one of the means to demonstrate compliance with applicable VOC limits (as shown in recordkeeping and reporting) (ARM 17.8.1213).

B.15. Compliance with the SIP SO_2 emission limitations contained in Section III.B.7, III.B.8, and III.B.9 shall be monitored by summing the hourly SO_2 emission rates for listed fuel gas combustion sources, and using the result to calculate the corresponding emission rate for each of the averaging periods (for which an emission limit in Section III.B.7, III.B.8, and III.B.9 applies) determined in accordance with Exhibit A, Section 6(F).

The hourly SO_2 emission rate for the listed fuel gas combustion units shall be determined by using the H_2S concentrations and fuel gas flow rates measured by the CEMS required by Exhibit A, Section 6 (B)(3) and (4) and the sampling required by Exhibit A, Section 6(B)(3). All calculations shall be made in accordance with the appropriate equation(s) in Exhibit A, Section 2(A)(1), (7), (9), and (14), except when CEMS data is not available as provided in Exhibit A, Section 2(A)(14) of the Stipulation (Billings/Laurel SO_2 Emission Control Plan,

approved into the SIP by EPA on May 2, 2002 and May 22, 2003).

B.16. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart J - Standards of Performance for Petroleum Refineries. These regulations shall apply to refinery fuel gas fired units and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart J).

B.17. CHS shall operate and maintain a continuous H_2S concentration monitor(s) (dry basis), including a data acquisition system, to monitor and record the H_2S concentration of all refinery fuel gas burned at the refinery, with the exception of refinery fuel gas streams with approved Alternative Monitoring Plans (AMP) or AMPs under review; or any unit with SO_2/O_2 CEMS, as specified under the individual emitting unit (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60 Subpart J, and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.18. Compliance monitoring for SO_2 limits for refinery fuel gas-fired units shall be based upon monitor data for H_2S, as required in Section III.B.17 and refinery fuel gas-firing rates, with the exception of refinery fuel gas streams with approved AMPs or AMPs under review; or any unit with SO_2/O_2 CEMS, as specified under the individual emitting unit (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60 Subpart J, and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.19. Certification of the H_2S in refinery fuel gas in parts per million (ppm) shall be demonstrated by performance of annual source testing using EPA-approved methods (40 CFR 60, Appendix A, Method 11) or an equivalent method approved by DEQ and EPA, and in accordance with Section III.A.2 (ARM 17.8.106) and/or determined by using the H_2S concentrations and fuel gas flow rates measured by the CEMS where otherwise required (ARM 17.8.1213 and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.20. Within 4 hours of the initial determination that the H_2S concentration in the refinery fuel gas stream has exceeded the upper range of the CEMS, CHS shall initiate sampling of the fuel gas stream on a once-per-3-hour period frequency using the Tutwiler method (40 CFR Part 60.648), or another method approved by DEQ and EPA to determine the H_2S concentration (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.21. CHS shall operate and maintain a continuous fuel gas flow rate meter, including a data acquisition system, to monitor and record the fuel flow rate of all refinery fuel gas burned (ARM 17.8.749, and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.22. Refinery fuel gas flow rate monitor accuracy determinations shall be required at least once every 48 months or more frequently as routine refinery turn-arounds allow (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.23. CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a

back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.749).

B.24. CEMS and Continuous Emissions Rate Monitoring System (CERMS) required by this permit shall comply with all applicable provisions of 40 CFR 60.5 through 60.13, Subparts J, 60.100-108 and Appendix B, Performance Specifications 2, 3, and 7 and Appendix F; and 40 CFR 52, Appendix E, for certifying Volumetric Flow Rate Monitors (ARM 17.8.749).

B.25. All gaseous (SO_2 and H_2S) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR 60, Appendix F and operated in accordance with the performance specifications in 40 CFR 60, Appendix B, Performance Specification 2 and 7 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

a. For the FCC Regenerator stack SO_2 CEMS, Zone A SRU TGI stack CEMS, and Zone D SRU TGI stack CEMS, said CEMS shall be required to be maintained such that it is available and operating at least 90% of the source operating time during any reporting period (quarterly).

b. For the Refinery Fuel Gas Combustion Unit CEMS:

i. If the 3-hour emissions from the refinery fuel gas combustion units never exceed 300 pounds at any time during a calendar quarter, or if the only exceedances are caused by malfunctions, CHS shall achieve a quarterly data recovery rate (QDRR) for each pair of H_2S concentration and refinery fuel gas flow rate monitors of at least 90%; or

ii. If the 3-hour emissions from the refinery fuel gas combustion units exceed 300 pounds at any time during a calendar quarter, and one or more of the exceedances are not caused by a malfunction, CHS shall achieve a quarterly data recovery rate (QDRR) for each pair of H_2S concentration and refinery fuel gas flow rate monitors of at least 94%.

Recordkeeping

B.26. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

B.27. CHS shall maintain, under CHS's control, all records required for compliance demonstration as described in the compliance demonstration sections (ARM 17.8.1212).

Reporting

B.28. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

B.29. CHS shall notify DEQ in writing of each source test a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

B.30. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

B.31. In accordance with Section 7 of the Stipulation (Appendix F of this permit), CHS shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to DEQ's Permitting and Compliance Division office in Helena and the Regional Office from which the Compliance Officer assigned to this facility is based. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002 and May 22, 2003 and ARM 17.8.1212).

B.32. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

B.33. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with emission limits and dates that quarterly reports were submitted as required by Section III.B.30 for the reporting period;

c. Summary of compliance with Stipulation limits and dates that quarterly reports were submitted as required by Section III.B.31 for the reporting period;

d. Summary of compliance with applicable requirements for 40 CFR 60 Subpart J (refinery fuel gas combustion) during the reporting period;

C. EU002 – # 1 Crude Unit and Naphtha Stabilizer

 # 1 Crude Unit Preheater (CV-HTR-1), # 1 Crude Unit Main Heater (CV-HTR-2), # 1 Crude Unit Vacuum Heater (CV-HTR-4), and LPRV Compressors (085C00001 and 085C00002).

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirement
C.1, C.9, C.15, C.20, C.21, C.22	# 1 Crude Unit Preheater and #1 Crude Unit Main Heater Opacity	40%	Method 9	As Required by DEQ and Section III.A.1	Semiannually
C.2, C.9, C.15, C.20, C.21, C.22	#1 Crude Unit Vacuum Heater-Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	
C.3, C.5, C.11, C.17, C.21, C.22	Equipment Leaks	40 CFR 60 Subpart GGGa -	40 CFR 60, Subpart VVa, 40 CFR 60 Subpart GGGa	40 CFR 60 Subpart VVa, 40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
C.4, C.6, C.10, C.12, C.16, C.21, C.22	Equipment Leaks	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV and 40 CFR 63 Subpart CC	Subpart VV and 40 CFR 63 Subpart CC	Semiannually and 40 CFR 60 Subpart CC
C.7, C.13, C.18, C.21, C.22	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
C.8, C.14, C.19, C.21, C.22	CV-HTR-4	40 CFR 60 Subpart Ja (H_2S in fuel gas only)	40 CFR 60 Subpart Ja (H_2S in fuel gas only)	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja

Conditions

C.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(1)). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

C.2. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)). This condition applies to the #1 Crude Unit Vacuum Heater (CV-HTR-4).

C.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 including compliance with specific requirements in Subpart VVa-Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. Subpart GGGa applies to the #1 Crude Unit fugitive piping equipment in VOC service and to the LPRV Compressors (085C00001 and 085C00002) as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

C.4. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV-Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic Hazardous Air Pollutant (HAP) service within the #1 Crude Unit and to the LPRV Compressors (085C00001 and 085C00002) (ARM 17.8.342 and 40 CFR 63 Subpart CC).

C.5. The #1 Crude Unit shall be maintained and operated as per the Leak Detection and Repair (LDAR) Program. The LDAR program would apply to all new equipment in both HAP and non-HAP VOC service in the #1 Crude Unit, as well as equipment in VOC service constructed or modified since January 4, 1983. The LDAR program would not apply to existing equipment in non-HAP service undergoing retrofit measures (ARM 17.8.749).

C.6. CHS shall monitor and maintain all pumps, shutoff valves, relief valves and other piping and valves associated (as defined above) with the #1 Crude Unit as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.752; ARM 17.8.342; and 40 CFR 63 Subpart CC).

C.7. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

C.8. CHS shall comply with the applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries. This regulation shall apply to the CV-HTR-4 (H2S in fuel gas requirements only and not NOx requirements) (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Compliance Demonstration

C.9. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Section III.C.1 and III.C.2 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

C.10. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV and 40 CFR 63 Subpart CC (ARM 17.8.340 and ARM 17.8.342 and 40 CFR 63 Subpart CC).

C.11. CHS shall institute a monitoring and maintenance program, as described under 40 CFR 60 Subpart VVa, and meeting the requirements of 40 CFR 60 Subpart GGGa (ARM 17.8.340, ARM 17.8.752, 40 CFR 60 Subpart GGGa).

C.12. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 60 Subpart GGG, ARM 17.8.342 and 40 CFR 63 Subpart CC).

C.13. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

C.14. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart Ja, Standards of Performance for Petroleum Refineries. These regulations shall apply to the #1 Crude Vacuum Heater (CV-HTR-4) (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Recordkeeping

C.15. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

C.16. CHS shall conduct recordkeeping in accordance with the requirements of 40 CFR 63 Subpart CC (40 ARM 17.8.342 and 40 CFR 63 Subpart CC).

C.17. CHS shall comply with the recordkeeping and reporting requirements contained in 40 CFR 60 Subpart VVa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

C.18. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD.

C.19. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Reporting

C.20. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

C.21. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

C.22. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

c. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

d. Summary of compliance with 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD.

e. Summary of compliance with 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja.

D. EU003 – #2 Crude Unit

 # 2 Crude Unit Main Heater (2CV-HTR-1), #2 Crude Unit Vacuum Heater (005HT0002)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.1, D.15, D.26, D.31, D.32, D.33	Opacity- 2CV-HTR-1 Opacity – #2 Crude Unit Vacuum Heater	40%- 2CV-HTR-1 20%- #2 Crude Unit Vacuum Heater	Method 9	As Required by DEQ and Section III.A.1	Semiannually
D.2, D.16, D.17, D.27, D.32, D.33	#2 Crude Unit	40 CFR 60 Subpart GGG	Subpart VV	Subpart VV	Semiannually and 40 CFR 60 Subpart GGG
D.3, D.16, D.17, D.27, D.32, D.33	#2 Crude Unit	40 CFR 63 Subpart CC	Subpart VV	Subpart VV	Semiannually and 40 CFR 63 Subpart CC
			Recordkeeping	During Performance of Program	
D.4, D.18, D.28, D.32, D.33	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
D.5, D.19, D.29, D.31, D.32, D.33	40 CFR 60 Subpart Ja- #2 Crude Unit Vacuum Heater	40 CFR 60 Subpart Ja, H_2S requirements but not NOx elements	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannual and 40 CFR 60 Subpart Ja
D.6, D.19, D.20, D.29, D.31; D.32; D.33	H_2S – #2 CU Vacuum Heater	<162 ppmvd 3-hr rolling average <60 ppmvd 365 day rolling average	CEMS	40 CFR 60, Subpart Ja	Semiannually
D.7, D.21, D.26, D.31, D.32, D.33	NOx – #2 CU Vacuum Heater	Ultra Low NOx burners and not exceed 1.05 lb/hr	Method 7E	Initial, and every 3 years thereafter. Concurrent with CO testing	Semiannually
D.8, D.22, D.26, D.31, D.32, D.33	CO – #2 CU Vacuum Heater	Utilizing proper design and good combustion practices, and not exceed 1.05 lb/hr	Method 10	Initial, and every 3 years thereafter. Concurrent with NOx testing	Semiannually
D.9, D.23, D.31 D.32, D.33	VOC – #2 CU Vacuum Heater	Utilizing proper design and good	Recordkeeping	Initial	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
		combustion practices, and completion of the preventive tune-ups.			
D.10, D.24, D.18, D.28, D.31, D.32, D.33	$PM_{10}/PM_{2.5}$ – #2 CU Vacuum Heater	Utilizing proper design and good combustion practices and complete the preventative tune-ups	Recordkeeping	40 CFR 63 Subpart DDDDD	Semiannually
D.11, D.25, D.18, D.28, D.31, D.32, D.33	CO_2e – #2 CU Vacuum Heater	Firing only RFG or pipeline quality natural gas and preventive tune-ups	Recordkeeping	40 CFR 63 Subpart DDDDD	Semiannually
D.12, D.21, , D.26, D.31, D.32, D.33	NOx– #2 CU Vacuum Heater	27.47 tons per rolling 12-calendar month total.	Recordkeeping	On-going	Semiannually
D.13, D.20, D.29, , D.32, D.33	SO_2 – #2 CU Vacuum Heater	6.72 tons per rolling 12-calendar month total.	Recordkeeping	On-going	Semiannually
D.14, D.22, , D.26, D.31, D.32, D.33	CO – #2 CU Vacuum Heater	36.63 tons per rolling 12-calendar month total.	Recordkeeping	On-going	Semiannually

Conditions

D.1. CHS shall comply with the following opacity requirements.

a. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(1)). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

b. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. The #2 CU Vacuum Heater (005HT0002) is subject to this requirement (ARM 17.8.304 (2)).

D.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart GGG applies to the various pumps, valves, flanges, and other equipment in VOC service within the #2 Crude Unit (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

D.3. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in 40 CFR 60 Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service within the #2 Crude Unit (ARM 17.8.342 and 40 CFR 63 Subpart CC).

D.4. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.5. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja—Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, for the new #2 CU Vacuum Heater (005HT00002). The new #2 CU Vacuum Heater is subject to the fuel gas H_2S requirements of NSPS Ja but not to the Ja requirements for NOx due to heater size (ARM 17.8.749 and 40 CFR 60 Subpart Ja).

D.6. CHS shall not burn any fuel gas on the New #2 CU Vacuum Heater (005HT0002) that contains H_2S in excess of 162 ppmvd determined hourly on a 3-hour rolling average basis and H_2S in excess of 60 ppmvd determined daily on a 365-successive calendar day rolling average basis (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart Ja).

D.7. The #2 CU Vacuum Heater (005HT0002) shall be equipped with ultra-low NOx burners and NOx emissions shall not exceed 1.05 lb/hr (ARM 17.8.749 and 17.8.752).

D.8. CO emissions from the #2 CU Vacuum Heater (005HT0002) shall be minimized by utilizing proper design and good combustion practices, and not exceed 1.05 lb/hr as demonstrated with EPA Federal Reference Method 10 (ARM 17.8.752).

D.9. VOC emission from the #2 CU Vacuum Heater (005HT0002) shall be minimized by utilizing proper design and good combustion practices and shall be demonstrated by compliance with the CO emission limit and completion of the preventive tune-ups required per 40 CFR 63 Subpart DDDDD (ARM 17.8.749, ARM 17.8.752, ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.10. CHS shall utilize proper design and good combustion practices and complete the preventative tune-ups required by 40 CFR 63 Subpart DDDDD to minimize $PM_{10}/PM_{2.5}$ emissions at the #2 CU Vacuum Heater (005HT0002). (ARM 17.8.749, ARM 17.8.752, ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.11. CO_2e emissions from the #2 CU Vacuum Heater (005HT0002) shall be minimized by:

a. Firing only RFG or pipeline quality natural gas (ARM 17.8.749 and 17.8.752);

b. Completing preventive tune-ups per 40 CFR 63 Subpart DDDDD (ARM 17.8.749, ARM 17.8.752, ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.12. NOx emissions from the #2 CU Vacuum Heater shall not exceed 4.59 tons per rolling 12-calendar month total (ARM 17.8.752);

D.13. SO_2 emissions from the #2 CU Vacuum Heater shall not exceed 0.84 tons per rolling 12-calendar month total (ARM 17.8.752);

D.14. CO emissions from the #2 CU Vacuum Heater shall not exceed 4.59 tons per rolling 12-calendar month total (ARM 17.8.752).

Compliance Demonstration

D.15. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.D.1 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

D.16. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV, 40 CFR 60 Subpart GGG, and 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart GGG and ARM 17.8.342 and 40 CFR 63 Subpart CC).

D.17. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 60 Subpart GGG, and ARM 17.8.342 and 40 CFR 63 Subpart CC).

D.18. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.19. CHS shall perform an initial compliance source test as required by 40 CFR 60 Subpart Ja. Currently CHS already has in place a fuel gas CEMS which provides continuous compliance monitoring related to sulfur content and the fuel gas CEMS data may be substituted for any requirement for an initial compliance source test (ARM 17.8.749 and 40 CFR 60 Subpart Ja)

D.20. Compliance for the #2 CU Vacuum Heater H_2S limit in Section III. D.6 shall be demonstrated using a CEMS on the fuel gas supply unless exempted by 40 CFR 60.107(a)(3) (ARM 17.8.106, ARM 17.8.340 and 40 CFR 60 Subpart Ja).

D.21. Compliance for the #2 CU Vacuum Heater NOx limit in Section III. D.7 shall be demonstrated using Federal Reference Method 7E. Initial testing shall be conducted within 180 days of startup, concurrently with CO testing, and every 3 years thereafter or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.749 and ARM 17.8.106).

D.22. Compliance for the #2 CU Vacuum Heater CO limit in Section III. D.8 shall be demonstrated using Federal Reference Method 10. Initial testing shall be conducted within 180 days of startup, concurrently with NOx testing, and every 3 years thereafter using the

date of the last source test or according to another testing/monitoring schedule as may be approved by DEQ (ARM (ARM 17.8.749 and ARM 17.8.106).

D.23. Compliance for the #2 CU Vacuum Heater VOC condition in Section III. D.9 shall be demonstrated by compliance with the CO limit and the recordkeeping required by 40 CFR 63 Subpart DDDDD (ARM 17.8.752, ARM 17.8.106 and 40 CFR 63 Subpart DDDDD).

D.24. Compliance for the #2 CU Vacuum Heater $PM_{10}/PM_{2.5}$ condition in Section III. D.10 shall be demonstrated via the recordkeeping requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.752, ARM 17.8.106, ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.25. Compliance for the #2 CU Vacuum Heater CO_2e condition in Section III. D.11 shall be demonstrated via the recordkeeping requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.752, ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

Recordkeeping

D.26. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

D.27. CHS shall conduct recordkeeping in accordance with 40 CFR 60 Subpart GGG and 40 CFR 63 Subpart CC, including recordkeeping for equipment leaks performed in accordance with 40 CFR 60.486, and 40 CFR 63.654 (ARM 17.8.340; 40 CFR 60 Subpart GGG; ARM 17.8.342 and 40 CFR 63 Subpart CC).

D.28. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.749 and 40 CFR 63 Subpart DDDDD).

D.29. CHS shall maintain records as required by 40 CFR 60 Subpart Ja (ARM 17.8.749 and 40 CFR 60 Subpart Ja).

D.30. CHS shall maintain the records required to demonstrate compliance with the limitations in Section D.13. The records shall be made available upon request by DEQ.

Reporting

D.31. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

D.32. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

D.33. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

c. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

d. Summary of compliance with 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

e. Summary of deviations from permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

f. Summary of compliance with 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja

E. EU004 – PDA Unit – Shutdown (no longer in service)

F. EU005 —Naphtha Hydrotreating Unit

NHT Reboiler Heater #1 (H-8302); NHT Reboiler Heater #2 (H-8303); NHT Splitter Reboiler Heater (H-8304); NHT Charge Heater (H-8301)(formerly MDU Charge Heater), Makeup Hydrogen Compressor (C-8302A) and Recycle Hydrogen Compressor (C-8302B).

Removed per MAQP 1821-13: *#2 Naphtha Unifiner Charge, Reboiler Heater (#2 NU Heater); #1 Unifiner Compressor Engine, #2 Unifiner Compressor Engine*

Condition(s)	Pollutant/ Parameter/Unit	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
F.1, F.11, F.19, F.24 F.26, F.27	Opacity	40%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section III.A.2
F.2, F.11, F.19, F.24, F.26, F.27	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	

Condition(s)	Pollutant/ Parameter/Unit	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
F.3, F.12,, F.20, F.26, F.27	NHT Charge Heater NHT Reboiler Heater #1 NHT Reboiler Heater #2 NHT Splitter Heater	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
F.4, F.13, F.21, F.26, F.27	Naphtha Hydrotreating Unit ---------- C-8302A C-8302B	40 CFR 60 Subpart GGG ---------- 40 CFR 60 Subpart GGG as applicable to compressors in hydrogen service	40 CFR 60 Subpart VV ---------- 40 CFR 60 Subpart GGG as applicable to compressors in hydrogen service	40 CFR 60 Subpart VV ---------- 40 CFR 60 Subpart GGG as applicable to compressors in hydrogen service	Semiannually and 40 CFR 60 Subpart GGG
F.5, F.13, F.14, F.21, F.26, F.27	Naphtha Hydrotreating Unit	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV Recordkeeping	40 CFR 60 Subpart VV During Performance of Program	Semiannually and 40 CFR 60 Subpart CC
F.6, F.15, F.22, F.26, F.27	NHT Charge Heater - SO_2	1.54 tons/ 12-month rolling and 0.70 lb/hr	RFG H_2S CEMS, see Section B.	Annual	Semiannually / Quarterly
F.7, F.16, F.19, F.24, F.26, F.27	NHT Charge Heater - NO_x	6.55 tons / 12-month rolling and 1.50 lb/hr	Method 7	Every Two Years	
F.8, F.16, F.19, F.24, F.26, F.27	NHT Charge Heater - CO	400 ppmvd at 3% oxygen / 30-day rolling	Method 10	Every Two Years	Semiannually / Quarterly
F.9, F.17, F.22, F.26, F.27	NHT Charge Heater VOC	0.86 tons / 12-month rolling	Emission calculations, see Section B.	Annual	
F.10, F.18, F.23, F.27	H-8302 #1 Stripper Reboiler and H-8304 Splitter Reboiler	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja

Conditions

F.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(1)). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60

consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

F.2. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2) – applicable to the NHT Charge Heater).

F.3. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

F.4. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart GGG applies to the various pumps, valves, flanges, and other equipment in VOC service within the Naphtha Hydrotreating Unit. The C-8302A and C-8302B compressors are subject to Subpart GGG as compressors in hydrogen service (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

F.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service within the Naphtha Hydrotreating Unit (ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.6. CHS shall not cause or authorize SO_2 emissions from the NHT Charge Heater (H-8301) to exceed 1.54 tons per rolling 12-calendar months or 0.70 lb/hr (ARM 17.8.752).

F.7. CHS shall not cause or authorize NO_x emissions from the NHT Charge Heater (H-8301) to exceed 6.55 tons per rolling 12-calendar months or 1.50 lb/hr (ARM 17.8.752).

F.8. CHS shall not cause or authorize CO emissions from the NHT Charge Heater (H-8301) to exceed 400 ppmvd at 3% O_2 on a 30-day rolling average (ARM 17.8.752).

F.9. CHS shall not cause or authorize VOC emissions from the NHT Charge Heater (H-8301) to exceed 0.86 tons per rolling 12-calendar months (ARM 17.8.752).

F.10. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, including the H-8302 #1 Stripper Reboiler and H-8304 Splitter Reboiler. These heaters are subject to the H_2S in fuel gas limit but not subject to process heater NOx requirements because they are rated less than 40 MMBtu/hr (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Compliance Demonstration

F.11. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.F.1 & F.2 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

F.12. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

F.13. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV and Subpart GGG and 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.14. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 63 Subpart CC).

F.15. CHS shall monitor compliance with the SO_2 limits for the NHT Charge Heater listed in Section III.F.6 through monitoring the volume and H_2S concentration of refinery fuel gas combusted, as specified in Section III.B (ARM 17.8.1213).

F.16. CHS shall test the NHT Charge Heater (H-8301) every 2 years, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_X and CO, concurrently, and the results submitted to DEQ in order to monitor compliance with the NO_X and CO emission limits contained in Sections III.F.7 & III.F.8 (ARM 17.8.105 and ARM 17.8.749).

F.17. CHS shall monitor compliance with the VOC limit for the NHT Charge Heater listed in Section III.F.9 through maintaining records of the fuel gas consumed and using the emission factor as specified in Section III.B (ARM 17.8.1213).

F.18. CHS shall demonstrate compliance in accordance with 40 CFR 60 Subpart Ja, to monitor compliance with Section III.F.10 (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Recordkeeping

F.19. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

F.20. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

F.21. CHS shall conduct recordkeeping in accordance with 40 CFR 60 Subpart GGG and 40 CFR 63 Subpart CC, including recordkeeping for equipment leaks performed in accordance with 40 CFR 60.486 and 40 CFR 63.648, as appropriate (ARM 17.8.340; 40 CFR 60 Subpart GGG; ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.22. CHS shall maintain records of fuel gas consumed in the NHT Charge Heater (ARM 17.8.1212).

F.23. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Reporting

F.24. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

F.25. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:
Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

F.26. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

F.27. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Dates that quarterly reports were submitted as required by Section III.F.25

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

d. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG.

f. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

G. EU006 – Middle Distillate Unifiner – *Shutdown – not in operation*

H. EU007 – Platformer Unit, including the Benzene Reduction Unit

Platformer Heater (P-HTR-1), Platformer Debutanizer Reboiler Heater (P-HTR-2), Platformer Splitter Reboiler (P-HTR-3), Benzene Reduction Unit Oily Water Sewer

Condition(s)	Pollutant/ Parameter/ Unit	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
H.1, H.16, H.28, H.36 H.38, H.39	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section III.A.2
H.2, H.17, H.29, H.38, H.39	Platformer Heater (P-HTR-1), Platformer Debutanizer Reboiler Heater (P-HTR-2), and Platformer Splitter Reboiler (P-HTR-3)	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
H.3, H.18, H.19, H.30, H.38, H.39	Platformer Unit	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 63 Subpart CC
			Recordkeeping	During Performance of Program	
H.4, H.20, H.31, H.38, H.39	Platformer Unit	40 CFR 63 Subpart UUU	Recordkeeping	During Performance of Program	Semiannually and 40 CFR 63 Subpart UUU
H.5, H.21, H.32, H.38, H.39	Benzene Reduction Unit	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
H.6, H.22, H.33, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3)	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
H.7, H.23, H.35, H.37, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3) SO_2	≤ 60 ppm H_2S in refinery fuel gas, 365-day rolling average; 1.8 tons/rolling 12-calendar month; 0.72 lb/hour	RFG H_2S CEMS, see Section B.	Annual	Quarterly
H.8, H.24, H.28, H.36, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3) NO_x	≤ 6.99 tons/rolling 12-calendar month; 1.60 lb/hour	Method 7	Every 5-years	Initially; Thereafter, As Required by DEQ and Section III.A.1
H.9, H.24, H.28, H.36, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3) CO	≤ 13.62 tons/rolling 12-calendar month; 3.11 lb/hour	Method 10	Every 5-years	Quarterly

Condition(s)	Pollutant/ Parameter/ Unit	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
H.10, H.25, , H.35, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3) PM/PM_{10}	≤ 1.31 tons/rolling 12-calander month; 0.30 lb/hour	Emission calculations, see Section B.	Annual	
H.11, H.25, , H.35, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3) VOC	≤ 0.64 tons/rolling 12-calendar month	Emission calculations, see Section B.	Annual	
H.12, H.24, H.28, H.36, H.38, H.39	Platformer Splitter Reboiler (P-HTR-3)	Fitted with ULNBs	Written Notification	Within 15 days of actual installation	
H.13, H.26, H.35, H.38, H.39	Platform Splitter Reboiler (P-HTR-3) Heat Input Rate	≤ 39.9 MMBtu-HHV/hr	Recordkeeping	Daily	Semiannually
H.14, H.27, H.34, H.38, H.39	Benzene Reduction Project Drains	All new drains will be routed to the sewer system that is subject to NSPS Subpart QQQ compliance and all such drains will be treated as subject to NSPS Subpart QQQ requirements	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Quarterly
H.15, H.27, H.34, H.38, H.39	Benzene Reduction Project Junction Boxes/Vessels	All new junction boxes/vessels will be either water sealed, equipped with vent pipes meeting NSPS Subpart QQQ standards, or equipped with closed vent systems and control devices that are designed and operated to meet the control requirements of NSPS Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ

Conditions

H.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)). This applies to the sources in the Benzene Reduction Unit. During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not

more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

H.2. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD):

H.3. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs for Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service within the Platformer Unit including the Benzene Reduction Unit (ARM 17.8.342 and 40 CFR 63 Subpart CC).

H.4. The Platformer Unit is a catalytic reforming unit subject to 40 CFR 63 Subpart UUU, NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. CHS shall comply with all applicable requirements of Subpart UUU for the Platformer Unit (ARM 17.8.342; 40 CFR 63 Subpart UUU).

H.5. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. This applies to the Benzene Reduction Unit (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

H.6. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, including the Platformer Splitter Reboiler. This heater is subject to the H_2S in fuel gas limit but is not subject to process heater NOx requirements because it is rated less than 40 MMBtu/hr (ARM 17.8.340; 40 CFR 60 Subpart Ja).

H.7. SO_2 emissions from the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 60 ppmv H_2S in refinery fuel gas, 365-day rolling average for the Platformer Splitter Reboiler (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart Ja), 1.18 tons/rolling 12-calendar month total (ARM 17.8.749), and 0.72 lbs/hour (ARM 17.8.749).

H.8. NO_x emissions from the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 6.99 tons/rolling 12-calendar month total (ARM 17.8.749) and 1.60 lb/hour (ARM 17.8.752).

H.9. CO emissions from the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 13.62 tons/rolling 12-calendar month total (ARM 17.8.749) and 3.11 lb/hour (ARM 17.8.752).

H.10. PM/PM_{10} emissions from the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 1.31 tons/rolling 12-calendar month total (ARM17.8.749) and 0.30 lb/hour (ARM 17.8.752).

H.11. VOC emissions from the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 0.64 tons/rolling 12-calendar month total (ARM 17.8.752).

H.12. The Platformer Splitter Reboiler (P-HTR-3) shall be fitted with ULNBs (ARM 17.8.752).

H.13. The heat input rate for the Platformer Splitter Reboiler (P-HTR-3) shall not exceed 39.9 MMBtu-HHV/hr (ARM 17.8.749).

H.14. All new drains associated with the benzene reduction project will be routed to the sewer system that is NSPS Subpart QQQ compliant and all such drains will be treated as subject to NSPS Subpart QQQ requirements (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

H.15. All new junction boxes/vessels constructed as part of the benzene reduction project will be either water sealed, equipped with vent pipes meeting NSPS Subpart QQQ standards (applicable to new junction boxes), or equipped with closed vent systems and control devices that are designed and operated to meet the control requirements of NSPS Subpart QQQ (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

Compliance Demonstration

H.16. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.H.1 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

H.17. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

H.18. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV as required by 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

H.19. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves associated with the Platformer Unit, as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 60 Subpart CC).

H.20. CHS shall conduct all monitoring and testing as required by 40 CFR 63 Subpart UUU, including maintaining records to document conformance with procedures in CHS's required operation, maintenance and monitoring plan (ARM 17.8.742 and 40 CFR 63 Subpart UUU).

H.21. CHS shall demonstrate compliance in accordance with 40 CFR 60 Subpart GGGa, to monitor compliance with Section III.H.5 (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

H.22. CHS shall demonstrate compliance in accordance with 40 CFR 60 Subpart Ja, to monitor compliance with Section III.H.6 (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

H.23. CHS shall monitor compliance with the SO_2 limits for the Platformer Splitter Reboiler (P-HTR-3) listed in Section III.H.7 through monitoring the volume and H_2S concentration of refinery fuel gas combusted, as specified in Section III.B (ARM 17.8.1213).

H.24. As required by DEQ, the Platformer Splitter Reboiler (P-HTR-3) shall be tested for NO_x and CO, concurrently, every five years from the date of the last source test and the results submitted to DEQ (ARM 17.8.105 and ARM 17.8.749).

H.25. CHS shall monitor compliance with the PM/PM_{10} and VOC limits for the Platformer Splitter Reboiler (P-HTR-3) listed in Sections III.H.10 and III.H.11 through maintaining records of the fuel gas consumed and using the emission factor as specified in Section III.B (ARM 17.8.1213).

H.26. CHS shall maintain records for the Platformer Splitter Reboiler (P-HTR-3) heat input limit, based on fuel gas flow rate monitoring and fuel analysis (ARM 17.8.749). This information shall be used to verify compliance with the limitation in Sections III.H.13 (ARM 17.8.1213).

H.27. CHS shall meet the requirements of all applicable testing and procedures of 40 CFR 60 Subpart QQQ-Standards of Performance for VOC Emissions. These regulations shall apply to the Benzene Reduction Unit Oily Water Sewer, and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ, ARM 17.8.1213).

Recordkeeping

H.28. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

H.29. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

H.30. CHS shall conduct recordkeeping in accordance with 40 CFR 63 Subpart CC, including recordkeeping for equipment leaks performed in accordance with 40 CFR 60.486 and 40 CFR 63.648, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart CC).

H.31. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.32. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

H.33. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

H.34. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ, ARM 17.8.1212).

H.35. The records required by Section III.H.23, Section III.H.25 and Section III.H.26 shall be maintained onsite (ARM 17.8.1212).

Reporting

H.36. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

H.37. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air

Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

H.38. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

H.39. The semiannual reporting shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the fuel usage and emissions factors utilized for compliance monitoring of Section III.H.10, with the highest ton/rolling 12 month period emissions rate, and highest lb/hr emissions rate during the reporting period noted, or if noncompliance occurred, the month and hourly emissions rates and timeframes of noncompliance noted;

c. A summary of the fuel usage and emissions factors utilized for compliance monitoring of Section III.H.11, with the highest ton/rolling 12 month period emissions rate, and highest lb/hr emissions rate during the reporting period noted, or if noncompliance occurred, the month and hourly emissions rates and timeframes of noncompliance noted during the reporting period;

d. A summary of the heat input rate records as required by Section III.H.26 during the reporting period, which shall include the highest heat input rate recorded during the reporting period, or if noncompliance is indicated, the heat input rates and timeframes of noncompliance;

e. Dates that quarterly reports were submitted as required by Section III.H.37

f. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

g. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

h. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40

CFR 60 Subpart GGG;

i. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

j. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart UUU during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart UUU;

k. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

l. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

I. EU008 – Fluid Catalytic Cracking Unit (FCCU)

FCC Charge Heater (FCC-Htr-1), FCC Regenerator (FCC-VSSL-1)

Note: In the renewal and issuance of #OP1821-18, the CO_2e limit shared by the FCCU regenerator and the Hydrogen Reformer Heater (067HT0001) was added in Section III.Z.

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
I.1, I.27, I.28, I.31, I.48, I.53, I.63, I.64	FCC Regenerator Opacity	30%	COMs	Ongoing	Quarterly
I.2, I.28, I.41, I.49, I.53, I.63, I.64	FCC Regenerator	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually and 40 CFR 60 Subpart J
I.3, I.29, I.49, I.63, I.64	FCC Regenerator (CO only)	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
I.4, I.39, I.40, I.56, I.63, I.64	FCC Unit Piping	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 60 Subpart CC
I.5, I.27, I.31, I.41, I.50, I.63, I.64	FCC Regenerator	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually and 40 CFR 63 Subpart UUU
I.6, I.30, I.51, I.63, I.64	40 CFR 63 Subpart DDDDD	Tune Up	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
	SIP: SO_2		CEMS	Ongoing	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
I.7, I.27, I.32, I.33, I.34, I.36, I.37, I.48, I.53, I.58, I.59, I.60, I.62, I.63, I.64		2,142.3 lb/ 3-hour Period	Method 6/6c	Annually	
I.8, I.27, I.32, I.33, I.34, I.36, I.37, I.48, I.53, I.58, I.59, I.60, I.62, I.63, I.64	SIP: SO_2	17,138.4 lb/ Calendar Day	CEMS	Ongoing	
			Method 6/6c	Annually	
I.9, I.27, I.32, I.33, I.34, I.36, I.37, I.48, I.53, I.58, I.59, I.60, I.62, I.63, I.64	SIP: SO_2	6,255,516 lb/Calendar Year	CEMS	Ongoing	
			Method 6/6c	Annually	
I.10, I.27, I.32, I.33, , I.37, I.48, I.53, I.58, I.62 I.63, I.64	SO_2 from FCC Regenerator	50 ppm at 0% O_2/7-day rolling average and 25 ppm at 0% O_2/365-day rolling average	CEMS	Ongoing	Quarterly
			Method 6/6c	Annually	
I.11, I.27, I.29, I.38, I.48, I.53, I.58, I.63, I.64	CO from FCC Regenerator	500 ppm at 0% O_2/1-hr	CEMS	Ongoing	
			Method 10	Annually	
I.12, I.27, I.38, I.48, I.53, I.58, I.62, I.63, I.64	CO from FCC Regenerator	100 ppm at 0% O_2/ rolling 365-days	CEMS	Ongoing	
			Method 10	Annually	
I.13, I.27, I.38, I.48, I.53, I.58, I.63, I.64	NO_x from FCC Regenerator	65.1 ppm at 0% O_2/ rolling 365-days	CEMS	Ongoing	Quarterly
			Method 7e	Annually	
I.14, I.27, I.38, I.48, I.53, I.58, I.63, I.64	NO_x from FCC Regenerator	102 ppm at 0% O_2/rolling 7-days	CEMS	Ongoing	
			Method 7e	Annually	
I.15, I.27, I.35, I.36, I.38, I.48, I.53, I.58, I.63, I.64	NO_x from FCC Regenerator	117 tons/rolling 12-months	CEMS	Ongoing	
			Method 7	Annually	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
I.16, I.28, I.42, I.48, I.49, I.58, I.63, I.64	PM from FCCU	1.0 lb PM/1000 lb coke burned Operate and maintain ESP	Method 5B/5F	Every 3-years	Semiannually and Section III.A.1
I.17, I.42, I.48, I.58, I.63, I.64	Particulate Matter, Industrial Processes	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$	Method 5B/5F Recordkeeping	Every 3-yeaers	Semiannually
I.18, I.27, I.63, I.64	CO and VOCs from Regenerator	Combustion promoters (as needed) and good combustion practices	Recordkeeping	On-going	Quarterly
I.19, I.29, I.49, I.63, I.64	FCC Charge Heater (FCC-Htr-1)	40 CFR 60, Subpart Ja	40 CFR 60, Subpart Ja	40 CFR 60, Subpart Ja	Semiannually
I.20, I.48, I.58, I.63, I.64	FCC Charge Heater (FCC-Htr-1) - Opacity	20 %	Method 9	As required by DEQ and Section III.A.1	Semiannually
I.21, I.54, I.47, I.63, I.64	FCC Charge Heater (FCC-Htr-1)	ULNBs	Method 7	Every 3-years	
I.22, I.23, I.29, I.38, I.43, I.44, I.47, I.48, I.49, I.53, I.58, I.63, I.64	NO_x from FCC Charge Heater (FCC-Htr-1)	40 ppm_{vd} at 0% O_2/ 30-day rolling average basis 2.6 lb/hr based on a 24-hr rolling average 10.1 tpy based on a 12-calendar month total	NOx CEMS Method 7	Every 3-years	
I.24, I.43, I.48, I.58, I.61, I.63, I.64	CO from FCC Charge Heater (FCC-Htr-1)	100 ppmv at 3% O_2/ 24-hour rolling average basis	Method 10	Every 3-years	
I.25, I.29, I.45, I.55, I.63, I.64	H_2S in Fuel Gas (FCC-Htr-1)	60 ppm_{vd}/365 day rolling average	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	
I.26, I.46, I.57, I.63, I.64	CO, VOC, and $PM/PM_{10}/PM_{2.5}$ emissions from the FCC Charge Heater (FCC-Htr-1)	Implement proper design and good combustion techniques	Recordkeeping	On-going	

Conditions

I.1. CHS shall not cause or authorize emissions to be discharged from the FCCU Regenerator Stack into the outdoor atmosphere that exhibit an opacity of 30% except for one 6 minute

average opacity reading in any one hour (ARM 17.8.340 and 40 CFR 60 Subpart J).

I.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart J-Standards of Performance for Petroleum Refineries. The FCC Regenerator is subject to the Subpart J requirements for SO_2 and PM (PM standard applicability of Subpart J was through consent decree and incorporated as part of MAQP 1821-13) (40 CFR 60 Subpart J).

I.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja-Standards of Performance for Petroleum Refineries. The FCC Regenerator is subject to the Subpart Ja requirements for CO (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

I.4. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service within the FCC Unit (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart UUU, NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. The FCC Regenerator is subject to the Subpart UUU requirements for Metal HAP and Organic HAP emissions (ARM 17.8.342; 40 CFR 63 Subpart UUU).

I.6. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

I.7. CHS shall not cause or authorize total SO_2 emissions from the FCC regenerator stack to exceed the limit of 2,142.3 pounds per 3-hour period (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.8. CHS shall not cause or authorize total SO_2 emissions from the FCC Regenerator stack to exceed the limit of 17,138.4 pounds per calendar day (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.9. CHS shall not cause or authorize total SO_2 emissions from the FCC Regenerator stack to exceed the limit of 6,255,516 pounds per calendar year (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.10. CHS shall not cause or authorize SO_2 emissions from the FCC Regenerator stack to exceed 50 ppm_{vd} at 0% O_2 per 7-day rolling average and 25 ppm_{vd} at 0% O_2 on a 365-day rolling average (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart J. Conditions originated in the consent decree and were incorporated as part of MAQP 1821-13).

I.11. CHS shall not cause or authorize CO emissions from the FCC Regenerator stack to exceed 500 ppm_{vd} at 0% excess air, on an hourly average basis (ARM 17.8.749 and 40 CFR 60 Subpart Ja; ARM 17.8.752).

I.12. CHS shall not cause or authorize CO emissions from the FCC Regenerator stack to exceed 100 ppm_{vd} at 0% O_2 per 365-day rolling average (ARM 17.8.749. Condition originated in the consent decree and was incorporated as part of MAQP 1821-15).

I.13. NO_x emissions from the FCCU shall not exceed 65.1 ppm_{vd} at 0% O_2 on a 365-day rolling average basis. This long-term limit shall apply at all times (including during startup, shutdown, and malfunction) that the FCCU Regenerator Stack is operating (ARM 17.8.749 and ARM 17.8.752. Condition originated from consent decree and was incorporated as part of MAQP #1821-21).

I.14. NO_x emissions from the FCCU shall not exceed 102 ppm_{vd} at 0% O_2 on a 7-day rolling average basis. This short-term limit shall exclude periods of startup, shutdown, and malfunction, but shall apply at all other times that the FCCU is operating. For days and hours in which the FCCU is not operating, no NO_X value shall be used in the average, and those periods shall be skipped in determining compliance with the 7-day and 365-day averages (ARM 17.8.749 and ARM 17.8.752. Condition originated from consent decree and was incorporated as part of MAQP 1821-21 via ARM 17.8.752).

I.15. NO_x emissions from the FCCU Regenerator Stack shall not exceed 117 tons per 12-month rolling average (limit is based on 65.1 ppm_{vd} at 0% O_2 on a 365-day rolling average) (ARM 17.8.749).

I.16. PM emissions from the FCCU shall be controlled with an ESP. CHS shall not cause or authorize total PM emissions from the FCC Unit stack to exceed 1.0 lb PM/1,000 lb of coke burned (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart J. Condition originated from consent decree and was incorporated as part of MAQP 1821-13).

I.17. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, CHS shall not cause or authorize particulate matter to be discharged from the FCC Unit into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter, calculated using the following equations:

For process weight rates up to 30 tons per hour:

$$E = 4.10 * P^{0.67}$$

For process weight rates in excess of 30 tons per hour:

$$E = 55.0 * P^{0.11} - 40$$

Where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour.

I.18. CO and VOC emissions from the FCCU Regenerator stack shall be controlled through the use of CO combustion promoters (as needed) and good combustion practices (ARM 17.8.752).

I.19. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007. This shall apply to FCC Charge Heater (FCC-Htr-1), as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

I.20. For the FCC Charge Heater (FCC-Htr-1), CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibits an opacity of 20% or greater averaged over 6 consecutive minutes (ARM

17.8.304). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

I.21. The FCC Charge Heater (FCC-Htr-1) shall be equipped with ultra-low NO_X burners (ULNBs) (ARM 17.8.752).

I.22. CHS shall not cause or authorize NO_X emissions from the FCC Charge Heater (FCC-Htr-1) to exceed 40 ppm_v (dry basis, corrected to 0% excess air) on a 30-day rolling average basis (ARM 17.8.752 and 40 CFR 60 Subpart Ja).

I.23. CHS shall not cause or authorize NO_X emissions from the FCC Charge Heater (FCC-Htr-1) to exceed 2.6 lb/hr based on a 24-hour rolling average and 10.1 tpy based on a 12-calendar month total (ARM 17.8.752).

I.24. CHS shall not cause or authorize CO emissions from the FCC Charge Heater (FCC-Htr-1) to exceed 100 ppmv at 3% O_2 on a 24-hour rolling average basis (ARM 17.8.752).

I.25. CHS shall not burn in the FCC Charge Heater (FCC-Htr-1) any fuel gas that contains H_2S in excess of 60 ppm_v determined daily on a 365-successive calendar day rolling average basis (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

I.26. CHS shall implement proper design and good combustion techniques to minimize CO, VOC, and $PM/PM_{10}/PM_{2.5}$ emissions from the FCC Charge Heater (FCC-Htr-1) (ARM 17.8.752).

Compliance Demonstration

I.27. CHS shall operate and maintain the following CEMS/CERMS on the FCC Regenerator stack:

a. SO_2 (ARM 17.8.749, 40 CFR 60 Subpart J, and Billings/Laurel SIP)

b. Stack gas flow (Billings/Laurel SO_2 SIP)

c. NO_x (ARM 17.8.749)

d. CO (ARM 17.8.749 and 40 CFR 60 Subpart Ja)

e. O_2 (ARM 17.8.749, 40 CFR 60 Subpart J and Ja, and 40 CFR 63 Subpart UUU)

f. Opacity (40 CFR 60 Subpart J and 40 CFR 63 Subpart UUU)

I.28. CHS shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60 Subpart J (ARM 17.8.340, ARM 17.8.749, and 40 CFR 60 Subparts A and J).

I.29. CHS shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60 Subpart Ja (ARM 17.8.340, ARM 17.8.749, and 40 CFR 60 Subparts A and Ja).

I.30. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

I.31. Opacity CEMS / COMS shall comply with 40 CFR 60, Appendix B Performance Specification 1 (ARM 17.8.340 and 40 CFR 60 Subpart J, ARM 17.8.342 and 40 CFR 63 Subpart UUU, and ARM 17.8.1213).

I.32. Compliance with the SO_2 emission limitations contained in Section III.I.7, III.I.8, III.I.9, and III.I.10 shall be monitored using data from the CEMS required by Exhibit A, Section 6(B)(1) and (2) and in accordance with the appropriate equation(s) in Exhibit A, Section 2(A)(1), (7), (9), and (14), except when CEMS data is not available as provided in Exhibit A, Section 2(A)(14) of the Stipulation (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003, and ARM 17.8.1213). SO_2, and O_2 CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR 60, Appendix F and operated in accordance with the performance specifications in 40 CFR 60, Appendix B, Performance Specifications 2 and 3 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and ARM 17.8.749, ARM 17.8.1213, and 40 CFR 60 Subpart J). For the FCC Regenerator stack SO_2 CEMS, said CEMS shall be required to be maintained such that it is available and operating at least 90% of the source operating time during any reporting period (quarterly) (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003 and ARM 17.8.1213).

I.33. In order to certify the SO_2 emission rates in pounds per hour for the FCC Regenerator stack, CHS shall perform annual source testing using EPA-approved methods (40 CFR 60, Appendix A, Methods 1-4, 6/6c as appropriate for the Stipulation and Exhibit A) or an equivalent method approved by DEQ and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106).

NO_x, CO, and O_2 CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR 60, Appendix F and operated in accordance with the performance specifications in 40 CFR 60, Appendix B, Performance Specification 2, 3 & 4 (40 CFR 60.13 and ARM 17.8.749).

I.34. The annual Relative Accuracy Test Audits (RATAs) required by 40 CFR 60.13 and Exhibit A, Sections 6(C) and (D) of the Stipulation may substitute for the annual source tests provided that the flow rate RATA and the concentration RATA are performed simultaneously and additional calculations are made to determine and report the data in pounds per hour of SO_2 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003, 40 CFR 60.13).

I.35. In order to certify the NO_x emission rates in tons per 12-month rolling average for the FCC Regenerator stack, CHS shall perform annual source testing using EPA-approved methods (40 CFR 60, Appendix A, Methods 1- 4, and 7 as appropriate) or an equivalent method approved by DEQ and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106).

The RATAs required by 40 CFR 60.13 may substitute for the annual source tests provided that the flow rate RATA and the concentration RATA are performed simultaneously, and additional calculations are made to determine and report the data in pounds per hour of NO_x (40 CFR 60.13).

I.36. All continuous stack gas flow rate monitors shall be installed, certified (on a flow rate basis), and operated in accordance with Department Method A-1 of Attachment #1 and be subject to and meet (on a flow rate basis) the quality assurance and quality control requirements of Department Method B-1 of Attachment #1 (ARM 17.8.1213 and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.37. SO_2 CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns and repairs. Startup and shut down for the FCC Regenerator stack shall only include time periods when gas-oil feedstock is being delivered to the FCC. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003. SO_2 CEM also required by 40 CFR 60 Subpart J).

I.38. All CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns, and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.749).

I.39. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV, as required by 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.40. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 63 Subpart CC).

I.41. CHS shall conduct all monitoring, testing, and recordkeeping as required by 40 CFR 60 Subpart J and 40 CFR 63 Subpart UUU (ARM 17.8.340 and 40 CFR 60 Subpart J; ARM 17.8.342 and 40 CFR 63 Subpart UUU).

I.42. CHS shall conduct PM tests on the FCC Regenerator stack every 3-years, or on another testing schedule as may be approved by DEQ to monitor compliance with the limits in Sections III.I.16 and III.I.17. CHS shall follow the stack protocol specified in 40 CFR 60.106(b)(2) and Method 5B/5F (ARM 17.8.1212; ARM 17.8.340 and 40 CFR 60 Subpart J; and ARM 17.8.105).

I.43. The FCC Charge Heater (FCC-Htr-1) shall be tested for NO_X and CO, concurrently, every 3-years. For NO_X/O_2 testing, this can be completed in conjunction with annual CEMS/CERMS RATA performance testing in accordance with Appendix F (40 CFR Part 60) requirements, or according to another testing/ monitoring schedule as may be approved

by DEQ. All results must be submitted to DEQ in order to demonstrate compliance with the emission limits (ARM 17.8.105 and ARM 17.8.749).

I.44. Continued compliance with the NO_X emission limits in Section III.I.22, and III.I.23 for the FCC Charge Heater (FCC-Htr-1) shall be monitored using the NO_X/O_2 CEMs and the volumetric stack flow rate monitor (with appropriate moisture correction). (ARM 17.8.1213).

I.45. Compliance monitoring for the H_2S limit in Section III.I.25 shall be based upon continuous H_2S concentration monitor data and fuel gas flowmeter data as required in Section III.B (ARM 17.8.1213).

I.46. Compliance with Section III.I.26 shall be monitored by maintaining records that proper design and good combustion techniques were implemented for the FCC Charge Heater (FCC-Htr-1).

I.47. CHS shall operate and maintain the following on the FCC Charge Heater (FCC-Htr-1

a. Stack gas flow (ARM 17.8.749)
b. NO_X/O_2 (ARM 17.8.749 and 40 CFR 60 Subpart Ja)
C. Ultra-Low NOx Burners

Recordkeeping

I.48. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (or under facility's control) (ARM 17.8.106 and ARM 17.8.1212).

I.49. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart J and Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subparts A, J and Ja).

I.50. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart A and UUU).

I.51. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

I.52. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.I.20 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

I.53. CHS shall maintain a file of all measurements from the CEMS, COMS, and performance testing measurements, including: all CEMS and COMS performance evaluations; all CEMS and COMS or monitoring device calibration checks and audits; all adjustments and maintenance performed on these systems or devices. These shall be recorded in a permanent form suitable for inspection and shall be retained on-site for at least 5 years following the date of such measurements and reports (ARM 17.8.749 and ARM 17.8.1212).

I.54. CHS shall maintain records of operation including documentation of any maintenance and/or inspection activities performed on the ULNB (ARMB 17.8.1212).

I.55. CHS shall maintain records documenting all H_2S concentration monitor data and fuel gas flowmeter data. The data must be maintained, on-site, and must be submitted to DEQ upon request (ARM 17.8.1212).

I.56. CHS shall conduct recordkeeping in accordance with 40 CFR 63 Subpart CC, including recordkeeping for equipment leaks performed in accordance with 40 CFR 60.486 and 40 CFR 63.654 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.57. CHS shall maintain onsite records required by Section III.I.46 (ARM 17.8.1212).

Reporting

I.58. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

I.59. CHS shall notify DEQ in writing of each source test a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.60. CHS shall notify DEQ in writing of each RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

I.61. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit

I.62. In accordance with Section 7 of the Stipulation (Appendix E of this permit), CHS shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the DEQ's Air, Energy & Mining Division office in Helena and to the Regional Office from which the Compliance Officer assigned to this facility is based. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003, ARM 17.8.1212).

I.63. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

I.64. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.I.46, III.I.54, and III.I.55, during the reporting period;

c. A summary of compliance with emission limits and reference to date of submittal of quarterly reports submitted as required by Section III.I.61;

d. A summary of compliance with Stipulation limits and reference to date of submittal of quarterly reports submitted as required by Section III.I.62;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart J during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart J;

f. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

g. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

h. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart UUU during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart UUU;

i. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD.

J. EU009 – Alkylation/Butamer/Merox/Saturate Units

Alkylation Unit Hot Oil Belt Heater (ALKY-HTR-1), Group 1 Miscellaneous Process Vents (Alkylation Unit Butamer Stabilizer Off Gas and Disulfide Separator Off Gas)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirement
J.1, J.6, J.12, J.16, J.17	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section IIIA.2

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirement
J.2, J.7, J.9, J.10, J.13, J.16, J.17	Alkylation/ Butamer/Merox/Saturate Units	40 CFR 60 Subpart GGG	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 60 Subpart GGG
J.3, J.7, J.9, J.10, J.16, J.17	Alkylation/ Butamer/Merox/Saturate Units	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 60 Subpart CC
J.4, J.8, J.14, J.16, J.17	Group 1 Miscellaneous Process Vents	40 CFR 63.643	40 CFR 63.644 & 645	40 CFR 63.644 & 645	40 CFR 63.654
J.5, J.11, J.15, J.16, J.17	Alkylation Hot Oil Heater	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD

Conditions

J.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

J.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart GGG applies to the various pumps, valves, flanges, and other equipment in VOC service within the Alkylation/Butamer/Merox/Saturate Units (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

J.3. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic Hazardous Air Pollutant (HAP) service within the Alkylation/Butamer/ Merox/Saturate Units (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.4. CHS shall comply with all applicable requirements of 40 CFR 63.643 as they apply to the units required to comply with the Group 1 Miscellaneous Process Vents Provisions (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

Compliance Demonstration

J.6. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.J.1 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

J.7. CHS shall conduct all recordkeeping, monitoring and testing as required by 40 CFR 60 Subpart GGG and 40 CFR 63 Subpart CC. These regulations shall apply to the Alkylation Hot Oil Belt Heater and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.8. Compliance monitoring for Group 1 miscellaneous process vents shall be performed in accordance with 40 CFR 63.654, 63.644, and/or 63.645, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.9. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV and Subpart GGG and 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart GGG, and ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.10. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.11. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by 40 CFR 63 Subpart DDDDD, including 40 CFR 63.7540 (ARM 17.8.340, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1213).

Recordkeeping

J.12. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

J.13. CHS shall conduct recordkeeping in accordance with 40 CFR 60 Subpart GGG; and 40 CFR 63 Subpart CC, including recordkeeping for equipment leaks performed in accordance with 40 CFR 60.486 and 40 CFR 63.654 (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and 40 CFR 63 Subpart CC).

J.14. Recordkeeping for Group 1 miscellaneous process vents shall be performed in accordance with 40 CFR 63.654, 63.644, and/or 63.645, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.15. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

Reporting

J.16. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

J.17. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

c. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

d. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

K. EU010 –Mild Hydrocracker and 100 Unit Hydrogen Plant

Reformer heater (H-101), Reformer heater (H-102), Reactor charge heater (H-201), Fractionator feed heater (H-202), Recycle Hydrogen Compressor (C-203), Makeup Hydrogen Compressors (C-204 A/B)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.1, K.26, K.44, K.58, K.59	40 CFR 60 Subpart GGG for 100 Unit Hydrogen Plant	40 CFR 60 Subpart GGG	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannual and 40 CFR 60 Subpart GGG
K.2, K.28, K.45, K.58, K.59	Mild Hydrocracker --- Makeup Hydrogen Compressors (C-204 A/B, Recycle Hydrogen Compressor (C-203)	40 CFR 60 Subpart GGGa --- 40 CFR 60 Subpart GGGa as applicable to compressors in hydrogen service	40 CFR 60 Subpart GGGa --- 40 CFR 60 Subpart GGGa as applicable to compressors in hydrogen service	40 CFR 60 Subpart GGGa --- 40 CFR 60 Subpart GGGa as applicable to compressors in hydrogen service	Semiannual and 40 CFR 60 Subpart GGGa
K.3, K.27, K.46, K.56, K.58, K.59	100 Unit Hydrogen Plant and Mild Hydrocracker	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannual and 40 CFR 63 Subpart CC
K.4, K.29, K.58, K.59	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannual and 40 CFR 60 Subpart QQQ

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.5, K.30, K.48, K.58, K.59	H-101 Reformer Heater, H-201 Reactor Charge Heater, H-202 Fractionator Feed Heater, H-102 Reformer Heater	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannual and 40 CFR 63 Subpart DDDDD
K.6, K.31, K.43, K.54, K.58, K.59	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannual and Section III.A.2
K.7, K.35, K.58, K.59	SO_2 from H-202	3.14 Tons per Rolling 12 Calendar-Month Total, and 1.43 lb/hr	RFG System H_2S CEMS, see Section B	Annually	Quarterly
K.8, K.32, K.35, K.43, K.54, K.58, K.59	NO_x from H-202	8.34 Tons per Rolling 12 Calendar-Month Total and 2.09 lb/hr	Method 7	Every Three Years	
K.9, K.32, K.35, K.43, K.54, K.58, K.59	CO from H-202	6.43 Tons per Rolling 12 Calendar-Month Total and 1.61 lb/hr	Method 10	Every Three Years	
K.10, K.36, K.58, K.59	VOC from H-202	0.65 Tons per Rolling 12 Calendar-Month Total	Emission Calculations	Ongoing	
K.11, K.35, K.58, K.59	SO_2 from H-201	4.35 Tons per Rolling 12 Calendar-Month Total and 1.99 lb/hr	RFG System H_2S CEMS, see Section B	Annually	
K.12, K.33, K.35, K.43, K.54, , K.58, K.59	NO_x from H-201	11.56 Tons per Rolling 12 Calendar-Month Total and 2.9 lb/hr	Method 7	Every Three Years	
K.13, K.33, K.35, K.43, K.54, , K.58, K.59	CO from H-201	8.92 Tons per Rolling 12 Calendar-Month Total and 2.23 lb/hr	Method 10	Every Three Years	
K.14, K.36, K.58, K.59	VOC from H-201	0.91 Tons per Rolling 12 Calendar-Month Total	Emission Calculations	Ongoing	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.15, K.35, K.58, K.59	SO_2 from H-101	1.68 tons per rolling 12-calendar month total and 2.15 lb/hr	Fuel flow and calculations	Ongoing	
K.16, K.34, K.35, K.43, K.54, K.58, K.59	NO_x from H-101	27.16 tons per rolling 12 Calendar-Month Total and 6.78 lb/hr	Method 7	Every Three Years	
K.17, K.34, K.35, K.43, K.54, K.58, K.59	CO from H-101	13.93 Tons per Rolling 12 Calendar-Month Total and 4.51 lb/hr	Method 10	Every Three Years	
K.18, K.36, K.58, K.59	VOC from H-101	0.35 tons per rolling 12 calendar month total	Emission Calculations	Ongoing	Quarterly
K.19, K.37, K.49, K.58, K.59	NO_X and H_2S/SO_2 from H-102 Reformer Heater	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
K.20, K.38, K.50, K.58, K.59	Hydrogen Plant Reformer Heaters	Fire all available 100 Unit PSA tailgas	Firing all available 100 Unit PSA tailgas in the 100 Unit Hydrogen Plant reformer heaters except during startup, shutdown or process upset	Ongoing	Semiannually
K.21, K.51, , K.58, K.59	H_2S in Fuel Gas (H-102)	60 ppm_{vd}/365 day rolling average	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.22, K.40, K.41, K.43, K.54, K.58, K.59	NO_x from H-102	40 ppmv (dry basis, corrected to 0 percent excess air) on a 30-day rolling average basis, 3.02 lb/hr on a rolling 24-hr basis, and 11.3 tons/rolling 12-calendar month total	40 CFR 60 Subpart Ja and Method 7	40 CFR 60 Subpart Ja / Every Three Years	
K.23, K.41, K.43, K.54, , K.58, K.59	CO from H-102	5.7 lb/hr and 25.1 tons/rolling 12- months	Method 10	Every Three Years	Quarterly
K.24, K.42, K.53, K.58, K.59	H-102 Reformer Heater	Fitted with ULNBs	Maintain per manufacturer's recommendations	Ongoing	Semiannually
K.25, K.42, K.53, K.58, K.59	CO, VOC, and $PM/PM_{10}/PM_{2.5}$ emissions from H-102	Implement proper design and good combustion techniques	Implement proper design and good combustion techniques	Ongoing	Semiannually

Conditions

K.1. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart GGG applies to the various pumps, valves, flanges, and other equipment in VOC service within the 100 Unit Hydrogen Plant (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

K.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. This requirement applies to the Mild Hydrocracker. The C-203 recycle hydrogen compressor and C-204 A/B makeup hydrogen compressors are subject to Subpart GGGa as compressors in hydrogen service (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.3. CHS shall comply with all requirements of 40 CFR 63 Subpart CC - NESHAP from Petroleum Refineries as applicable to the Mild Hydrocracker and 100 Unit Hydrogen Plant (ARM 17.8.342, 17.8.1212 and 40 CFR 63 Subpart CC).

K.4. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ-Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

K.6. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. This applies to the sources in the MHC complex (ARM 17.8.304 (2)).

K.7. SO_2 emissions from H-202 shall not exceed 3.14 tons per rolling 12-calendar month total, and 1.43 lb/hr (ARM 17.8.749).

K.8. NO_x emissions from H-202 shall not exceed 8.34 tons per rolling 12-calendar month total and 2.09 lb/hr (ARM 17.8.749).

K.9. CO emissions from H-202 shall not exceed 6.43 tons per rolling 12-calendar month total and 1.61 lb/hr (ARM 17.8.749).

K.10. VOC emissions from H-202 shall not exceed 0.65 tons per rolling 12-calendar month total (ARM 17.8.749).

K.11. SO_2 emissions from H-201 shall not exceed 4.35 tons per rolling 12-calendar month total and 1.99 lb/hr (ARM 17.8.749).

K.12. NO_x emissions from H-201 shall not exceed 11.56 tons per rolling 12-calendar month total and 2.9 lb/hr (ARM 17.8.749).

K.13. CO emissions from H-201 shall not exceed 8.92 tons per rolling 12-calendar month total and 2.23 lb/hr (ARM 17.8.749).

K.14. VOC Emissions from H-201 shall not exceed 0.91 tons per rolling 12-calendar month total (ARM 17.8.749).

K.15. SO_2 emissions from H-101 shall not exceed 1.68 tons per rolling 12-calendar month total and 2.15 lb/hr (ARM 17.8.749).

K.16. NO_x emissions from H-101 shall not exceed 27.16 tons per rolling 12-calendar month total and 6.78 lb/hr (ARM 17.8.749).

K.17. CO emissions from H-101 shall not exceed 13.93 tons per rolling 12-calendar month total and 4.51 lb/hr (ARM 17.8.749).

K.18. VOC emissions from H-101 shall not exceed 0.35 tons per rolling 12-calendar month total (ARM 17.8.749).

K.19. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or

Modification Commenced After May 14, 2007. This regulation shall apply to the H-102 Reformer Heater, as appropriate (ARM 17.8.340; 40 CFR 60 Subpart Ja).

K.20. All available 100 Unit PSA tailgas shall be fired in the 100 Unit Hydrogen Plant reformer heaters, except during periods of startup, shutdown or process upset (ARM 17.8.752).

K.21. CHS shall not burn in the H-102 Reformer Heater any fuel gas that contains H_2S in excess of 60 ppmv determined daily on a 365-successive calendar day rolling average basis (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

K.22. NO_X emissions from H-102 shall not exceed 40 ppmv (dry basis, corrected to 0 percent excess air) on a 30-day rolling average basis (40 CFR 60 Subpart Ja), 3.02 lb/hr on a rolling 24-hr basis (ARM 17.8.752), and 11.3 tons/rolling 12-calendar month total (ARM 17.8.749).

K.23. CO emissions from H-102 shall not exceed 5.7 lb/hr (ARM 17.8.752) and 25.1 tons/rolling 12-calendar month total (ARM 17.8.749).

K.24. H-102 shall be fitted with ULNBs (ARM 17.8.752).

K.25. CHS shall implement proper design and good combustion techniques to minimize CO, VOC, and $PM/PM_{10}/PM_{2.5}$ emissions from the H-102 Reformer Heater (ARM 17.8.752).

Compliance Demonstration

K.26. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart GGG, Equipment Leaks of VOC in Petroleum Refineries. These regulations shall apply to the 100 Unit Hydrogen Plant, as appropriate. A monitoring and maintenance program, as described under New Source Performance Standards (40 CFR 60 Subpart VV), shall be instituted (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

K.27. CHS shall demonstrate compliance with 40 CFR 63 Subpart CC as specified in the rule (40 CFR 63 Subpart CC and ARM 17.8.1212).

K.28. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. These regulations shall apply to the Mild Hydrocracker unit once constructed (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.29. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart QQQ, Standards of Performance for Volatile Organic Compound Emissions from Petroleum Refinery Wastewater Systems. These regulations shall apply to the HDS unit and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.30. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

K.31. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.K.6 shall be monitored using EPA Reference Method 9 testing by a qualified observer (ARM 17.8.1213).

K.32. The Fractionator Feed Heater Stack (H-202) shall be tested every three years, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_x and CO, concurrently (using Methods 7 and 10, respectively), and the results submitted to DEQ in order to monitor compliance with the NO_x and CO emission limits contained in Section III.K.8 and III.K.9 (ARM 17.8.105 and ARM 17.8.749).

K.33. The Reactor Charge Heater Stack (H-201) shall be tested every three years, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_x and CO, concurrently (using Methods 7 and 10, respectively), and the results submitted to DEQ in order to demonstrate compliance with the NO_x and CO emission limits contained in Section III.K.12 and III.K.13 (ARM 17.8.105 and ARM 17.8.749).

K.34. The Reformer Heater Stack (H-101) shall be tested every three years, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_x and CO, concurrently (using Methods 7 and 10, respectively), and the results submitted to DEQ in order to demonstrate compliance with the emission limits contained in Section III.K.16 and III.K.17 (ARM 17.8.105 and ARM 17.8.749).

K.35. In addition to the testing required in Section III.K.32, III.K.33, and III.K.34, compliance monitoring for the emission limits applicable to the MHC complex sources listed in Sections III. K.8, K.9, K.12, K.13, K.16, and K.17 be based upon actual fuel-burning rates and the emission factors developed from the most recent compliance source test. Fuel flow rates, fuel heating value, production information and other data, as needed, shall be recorded for each emitting unit during the performance of the source tests in order to develop emission factors for use in the compliance determinations. New emission factors shall become effective within 60 days after the completion of a source test accepted by DEQ.

In addition, CHS shall monitor compliance with the SO_2 limits for the MHC complex sources through monitoring the volume and H_2S concentration of refinery fuel gas combusted, as specified in Section III.B. Alternatively, firing these units solely on natural gas shall demonstrate compliance with the applicable SO_2 limits during the timeframe the units are fired on natural gas (ARM 17.8.1213).

K.36. CHS shall monitor compliance with the VOC limits for the Fractionator Feed Heater (H-202), Reactor Charge Heater (H-201), and Reformer Heater (H-101) listed in Section III.K.10, III.K.14, and III.K.18 through maintaining records of the fuel gas consumed and using an appropriate emissions factor as approved by DEQ (ARM 17.8.1213).

K.37. CHS shall demonstrate compliance in accordance with 40 CFR 60 Subpart Ja, to monitor compliance with Section III.K.19 (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

K.38. Compliance with Section III.K.20 shall be monitored by firing all available 100 Unit PSA tailgas in the 100 Unit Hydrogen Plant reformer heaters, except during periods of startup, shutdown or process upset (ARM 17.8.1213).

K.39. Compliance monitoring for the H_2S limit in Section III.K.21 shall be based upon continuous H_2S concentration monitor data as required in Section III.B (ARM 17.8.1213).

K.40. For the H-102 Reformer heater demonstration of NO_X emissions limits, CHS shall install and operate a NO_X/O_2 CEMS (40 CFR 60 Subpart Ja), and volumetric flow rate monitor (ARM 17.8.749 and ARM 17.8.1213). The NO_X/O_2 CEMS shall comply with Appendix B of 40 CFR 60, Performance Specifications 2, 3, and 6; and Appendix F of 40 CFR 60. The required volumetric flow rate monitor shall comply with the Billings/Laurel SIP Pollution Control Plan Exhibit A, Attachment 1 Methods A-1 and B-1 (ARM 17.8.749 and ARM 17.8.1213).

K.41. The H-102 Reformer Heater shall be tested once every three years, in conjunction with the annual CEMS/CERMS RATA performance testing in accordance with 40 CFR 60 Appendix F requirements, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_x and CO, concurrently (using Methods 7 and 10, respectively, in accordance with Section III.A.2 (ARM 17.8.106)), and the results submitted to DEQ in order to monitor compliance with the NO_x and CO emission limits contained in Section III.K.22 and III.K.23.

K.42. Compliance with Section III.K.24 and III.K.25 shall be monitored by implementing proper design and good combustion techniques to minimize NO_X, CO, VOC, and $PM/PM_{10}/PM_{2.5}$ emissions from the H-102 Reformer Heater (ARM 17.8.1213).

Recordkeeping

K.43. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

K.44. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGG (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

K.45. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.46. CHS shall comply with the recordkeeping requirements of 40 CFR 63 Subpart CC (40 CFR 63 Subpart CC and ARM 17.8.1212).

K.47. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.48. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

K.49. CHS shall conduct recordkeeping for monitoring, testing, and documenting compliance in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

K.50. CHS shall maintain records that all available 100 Unit PSA tailgas was fired in the 100 Unit Hydrogen Plant reformer heaters and CHS must document alternate fuel used during

periods of startup, shutdown or process upset to maintain compliance with Section III.K.38 (ARM 17.8.1212).

K.51. CHS shall maintain records documenting all H_2S concentration monitor data. The data must be maintained on-site and must be submitted to DEQ upon request (ARM 17.8.1212).

K.52. CHS shall maintain records of operation including documentation of any maintenance and/or inspection activities performed on the ULNB (ARM 17.8.1212).

K.53. CHS shall maintain records that proper design and good combustion techniques were implemented for the H-102 Reformer Heater to document compliance with Section III.K.42 (ARM 17.8.1212).

Reporting

K.54. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

K.55. CHS shall provide DEQ copies of testing results, monitoring operations, recordkeeping, and report results as specified under 40 CFR 60 Subpart QQQ, Sections 60.693-2, 60.696, 60.697, and 60.698 (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.56. CHS shall comply with the reporting requirements contained in 40 CFR 63, Subpart CC and 40 CFR 63 DDDDD (ARM 17.8.342, CFR 63 Subpart CC and 40 CFR 63 Subpart DDDDD).

K.57. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

K.58. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

K.59. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

c. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

e. Summary of compliance with 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

f. Summary of the records required by Section III.K.50, III.K.51, III.K.52, and III.K.53;

g. Summary of compliance with 40 CFR 60 Subpart Ja during the reporting period;

h. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD.

L. EU011 – Zone D Sulfur Recovery Unit (SRU)

Zone D SRU Incinerator Stack (INC-401)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
L.1, L.13, L.34, L.35	Zone D SRU	40 CFR 60 Subparts Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
L.2, L.7, L.8, L.14, L.28, L.34, L.35	Zone D SRU	40 CFR 63 Subpart UUU Startup/Shutdown Protocols	Subparts Ja and UUU	Subparts Ja and UUU	Semiannually and 40 CFR 63 Subpart UUU
L.3, L.15, L.26, L.29, L.34, L.35	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section III.A.2
L.4, L.16, L.17, L.18, L.20, L.21, L.26, L.29, L.34, L.35	SO_2	53.17 Tons per Rolling 12 -Month Total, and 14.21 lb/hr	CEMS	On-going	Quarterly
			Method 6/6c	Every Three Years	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
L.5, L.6, L.16, L.17, L.18, L.20, L.21, L.27, L.34, L.35	SO_2	250 ppm_{vd}, on a Rolling 12-hour average corrected to 0% oxygen	Subparts Ja	Subparts Ja	Semiannually and 40 CFR 60 Subpart Ja
L.9, L.16, L.17, L.18, L.19, L.20, L.21, L.22, L.24, L.26, L.29, L.30, L.31, L.33, L.34, L.35	SIP: SO_2	42.6 Pounds per 3-Hour Period	CEMS	Ongoing-Annual RATA	Quarterly
			Method 6/6c	Every Three Years	
L.10, L.16, L.17, L.18, L.19, L.20, L.21, L.22, L.24, L.26, L.29, L.30, L.31, L.33, L.34, L.35	SIP: SO_2	340.8 Pounds per Calendar Day	CEMS	Ongoing-Annual RATA	
			Method 6/6c	Every Three Years	
L.11, L.16, L.17, L.18, L.19, L.20, L.21, L.22, L.24, L.26, L.29, L.30, L.31, L.33, L.34, L.35	SIP: SO_2	124,392 Pounds per Calendar Year	CEMS	Ongoing-Annual RATA	
			Method 6/6c	Every Three Years	
L.12, L.16, L.23, L.26, L.29, L.34, L.35	NO_x	3.5 Tons per Rolling 12 Calendar-Month Total, 19.2 lb/day, and 0.8 lb/hr	Method 7	Every Six Years	Semiannually and Section III.A.2
L.17, L.18, L.19, L.20, L.21, L.22, L.24, L.31, L.34, L.35	SO_2 and O_2, CEMS	Operate and Maintain	40 CFR 60, Appendix F	On-going	Semiannually
			RATA	Annually	
L.17, L.18, L.19, L.20, L.21, L.22, L.24, L.25, L.31, L.34, L.35	Continuous Stack Flow Rate Monitor	Operate and Maintain	SO_2 SIP	On-going	
			RATA	Annually	

Conditions

L.1. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja - Standards of Performance for Petroleum Refineries. These regulations shall apply to the Zone D SRU Incinerator Stack (INC-401) and any other equipment, as appropriate (ARM 17.8.340 and 40

CFR 60 Subpart Ja).

L.2. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart UUU – NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. These regulations shall apply to the Zone D SRU Incinerator Stack (INC-401) and any other equipment, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

L.3. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

L.4. SO_2 emissions from the Zone D Incinerator Stack (INC-401) shall not exceed 53.17 tons per rolling 12- month total and 14.21 lb/hr, applicable at all times except during a malfunction, (ARM 17.8.749).

L.5. SO_2 emissions from the Zone D Incinerator Stack (INC-401) shall not exceed 250 ppm_{vd}, rolling 12-hour average basis corrected to 0% O_2, applicable at all times except during startup, shutdown and malfunction (ARM 17.8.749, ARM 17.8.752, and 40 CFR 60 Subpart Ja).

L.6. CHS shall operate and maintain the TGTU on the Zone D SRU to control SO_2 emissions from the Zone D SRU incinerator stack (ARM 17.8.749).

L.7. CHS shall minimize the frequency and duration of startups and shutdowns of the Zone D SRP by operating at all times in accordance with an operation, maintenance and monitoring plan meeting the requirements of 40 CFR 63.1574(f) (ARM 17.8.752).

L.8. CHS shall comply with 40 CFR 63 subpart UUU (Refinery MACT II) emission limits during periods of startup and shutdown as specified in § 63.1568(a)(4). For the purposes of startup and shutdown, shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose. Startup means the setting in operation of an affected source or portion of an affected source for any purpose (40 CFR 63.2). CHS shall document these events to define periods of startup and shutdown for the purpose of compliance demonstration (ARM 17.8.752, ARM 17.8.749, and 40 CFR 63 Subpart UUU).

L.9. CHS shall not cause or authorize total SO_2 emissions from the Zone D SRU Incinerator stack to exceed the limit of 42.6 pounds per 3-hour period (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.10. CHS shall not cause or authorize total SO_2 emissions from the Zone D SRU Incinerator stack to exceed the limit of 340.8 pounds per calendar day (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.11. CHS shall not cause or authorize total SO_2 emissions from the Zone D SRU Incinerator stack to exceed the limit of 124,392 pounds per calendar year (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.12. NO_x emissions from the Zone D Incinerator Stack (INC-401) shall not exceed 3.5 tons per rolling 12-calendar month total, 19.2 lb/day, and 0.8 lb/hr (ARM 17.8.749).

Compliance Demonstration

L.13. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart Ja, Standards of Performance for Petroleum Refineries. These regulations shall apply to the Zone D SRU and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

L.14. CHS shall conduct all monitoring and testing as required by 40 CFR 63 Subpart UUU, including maintaining records to document conformance with procedures in CHS's required operation, maintenance and monitoring plan (ARM 17.8.742 and 40 CFR 63 Subpart UUU).

L.15. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.L.3 shall be monitored using EPA Reference Method 9 testing by a qualified observer (ARM 17.8.1213).

L.16. The Zone D SRU Incinerator Stack (INC-401) shall be tested once every three years or according to another testing/monitoring schedule as may be approved by DEQ, for SO_2 and shall be tested once every six years for NO_x (using Methods 6/6c and 7, respectively), and the results submitted to DEQ in order to monitor compliance with the SO_2 and NO_x emission limits contained in Section III.L.4, L.9 - L.12 (ARM 17.8.105 and ARM 17.8.749).

L.17. CHS shall operate and maintain CEMS/CERMS on the Zone D Incinerator Stack (INC-401) for SO_2, O_2, and volumetric flow rate (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subparts Ja, and Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003). Note: SIP is the reference that requires the volumetric flow rate.

L.18. Compliance monitoring for ppm, hourly, 24-hour and annual SO_2 limits for the Zone D SRU Incinerator stack shall be based upon CEMS data utilized for SO_2 as required in Section III.L.17 (ARM 17.8.1213).

L.19. Compliance with the SO_2 emission limitations contained in Section III.L.9, III.L.10, and III.L.11 shall be monitored using data from the CEMS required by Exhibit A, Section 6(B)(1) and (2) and in accordance with the appropriate equation(s) in Exhibit A, Section 2(A)(1), (7), (9), and (14) except when CEMS data is not available as provided in Exhibit A, Section 2(A)(14) of the Stipulation (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.20. CEMS and CERMS required by this permit shall comply with all applicable provisions of 40 CFR 60.5 through 60.13, Subparts Ja, and Appendix B, Performance Specifications 2, 3, 6, and Appendix F (quality assurance/quality control procedures); and 40 CFR 52, Appendix E, for certifying Volumetric Flow Rate Monitors (ARM 17.8.749, Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003; 17.8.340 and 40 CFR 60 Subpart Ja).

L.21. CEM systems are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns and repairs. Startup and shut down for the Zone D SRU Stack shall only include time periods when sulfur-bearing gases are being delivered to the Zone D SRU. In the event the primary CEM system is unable to meet minimum availability requirements, the recipient shall provide a back-up or alternative

monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.749).

L.22. For the Zone D SRU stack CEMS, said CEMS shall be required to be maintained such that it is available and operating at least 90% of the source operating time during any reporting period (quarterly) (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.23. In addition to the testing required in Section III.L.16, compliance monitoring for the NO_x emission limits applicable to the Zone D SRU shall be based upon actual fuel-burning rates and the emission factors developed from the most recent compliance source test. Fuel flow rates, fuel heating value, production information and other data, as needed, shall be recorded for each emitting unit during the performance of the source tests in order to develop emission factors for use in the compliance determinations. New emission factors shall become effective within 60 days after the completion of a source test (ARM 17.8.749).

L.24. In order to certify the SO_2 emission rates in pounds per hour for the Zone D SRU stack, CHS shall perform annual source testing using EPA-approved methods (40 CFR 60, Appendix A, Methods 1-4 and 6/6c as appropriate for this Stipulation and Exhibit A) or an equivalent method approved by DEQ and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106). The annual RATAs required by Sections 6(C) and (D) may substitute for the annual source tests provided that the flow rate RATA and the concentration RATA are performed simultaneously and additional calculations are made to determine and report the data in pounds per hour of sulfur dioxide (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.25. All continuous stack gas flow rate monitors required by the Stipulation shall be installed, certified (on a flow-rate basis), and operated in accordance with Department Method A-1 of Attachment #1 and be subject to and meet (on a flow-rate basis) the quality assurance and quality control requirements of Department Method B-1 of Attachment #1 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

Recordkeeping

L.26. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

L.27. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart Ja, including for the Zone D SRU and other associated equipment (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

L.28. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

Reporting

L.29. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

L.30. CHS shall notify DEQ in writing of each source test a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.31. CHS shall notify DEQ in writing of each RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.32. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

L.33. In accordance with Section 7 of the Stipulation (Appendix F of this permit), CHS shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to DEQ's Permitting and Compliance Division office in Helena and the Regional Office from which the Compliance Officer assigned to this facility is based. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

L.34. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

L.35. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart UUU during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart UUU;

d. A summary of compliance with unit emission limits and conditions of this section and dates that quarterly reports were submitted as required by Section III.L.32 and

e. A summary of compliance with Stipulation limits and dates that quarterly reports were submitted as required by Section III.L.33

M. EU012 – Zone A Sulfur Recovery Unit (SRU)

Zone A SRU, Tail Gas Treatment Unit (TGTU), Tail Gas Incinerator (TGI) [SRU-AUX-4]

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
M.1, M.27, M.37, M.38	Zone A SRU	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually and 40 CFR 60 Subpart J
M.2, M.14, M.28, M.34, M.37, M.38	Zone A TGTU Process Drains	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
M.3, M.15, M.29, M.37, M.38	Zone A SRU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually and 40 CFR 63 Subpart UUU
M.4, M.16, M.26 ,M.31, M.37, M.38	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannually and Section III.A.2
M.5, M.17, M.18, M.19, M.20, M.21, M.22, M.26, M.31, M.32, M.33, M.36, M.37, M.38	SIP: SO_2	2,916.3 lb/ 3-Hour Period	CEMS	Ongoing-Annual RATA	Quarterly
			Method 6/6c	Every Three Years	
M.6, M.17, M.18, M.19, M.20, M.21, M.22, M.26, M.31, M.32, M.33, M.36, M.37, M.38	SIP: SO_2	23,330.4 lb/ Calendar Day	CEMS	Ongoing-Annual RATA	
			Method 6/6c	Every Three Years	
M.7, M.17, M.18, M.19, M.20, M.21, M.22, M.26, M.31, M.32, M.33, M.36, M.37, M.38	SIP: SO_2	8,515,596 lb/ Calendar Year	CEMS	Ongoing-Annual RATA	
			Method 6/6c	Every Three Years	
	SO_2		CEMS	Ongoing	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
M.8, M.17, M.18, M.22, M.23, M.26, M.31, M.37, M.38		11.6 lb/hour; 278.4 lb/day; and 40.66 tons/rolling 12-month	Method 6/6c	Every Three Years	
M.9, M.17, M.18, M.22, M.23, M.26, M.31, M.37, M.38	SO_2	200 ppm at 0% O_2 on a dry basis, per rolling 12-month average	CEMS	Ongoing	
			Method 6/6c	Every Three Years	
M.10, M.23, M.26, M.31, M.37, M.38	NOx	1.09 lb/hour; and 4.8 tons/rolling 12-month total	Method 7	Every Six Years	Semiannually and Section III.A.2
M.11, M.24, M.26, M.31, M.37, M.38	PM	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$	Method 5	As Required by DEQ	Semiannually and Section III.A.2
M.12, M.25, M.30, M.37, M.38	Stack Height	Height no less than 132 feet	Recordkeeping	Annually	Semiannually

Conditions

M.1. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart J – Standards of Performance for Petroleum Refineries. This regulation shall apply to the Zone A SRU TGTU TGI stack (SRU-AUX-4) and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart J). Sulfur pit emissions from the Zone A SRP shall be eliminated, controlled, or included and monitored as part of the Zone A tail gas emissions that meet the NSPS Subpart J limit of 250 ppmvd SO_2 corrected to 0% O_2, on a 12-hour rolling average basis, as required by 40 CFR 60.104(a)(2) (MAQP #1821-11, originally from CHS Consent Decree).

M.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. This regulation shall apply to the TGTU process drains and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

M.3. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart UUU – NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. These regulations shall apply to the Zone A SRU and any other equipment, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

M.4. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. This applies to the sources in the TGTU (ARM 17.8.304 (2)).

M.5. CHS shall not cause or authorize total SO_2 emissions from the Zone A SRU TGI stack (SRU-AUX-4) exceed the limit of 2,916.3 pounds per 3-hour period (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.6. CHS shall not cause or authorize total SO_2 emissions from the Zone A SRU TGI stack (SRU-AUX-4) exceed the limit of 23,330.4 pounds per calendar day (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.7. CHS shall not cause or authorize total SO_2 emissions from the Zone A SRU TGI stack (SRU-AUX-4) to exceed the limit of 8,515,596 pounds per calendar year (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.8. CHS shall not cause or authorize total SO_2 emissions from the Zone A SRU TGI stack (SRU-AUX-4) to exceed the limits of 11.6 lb/hour; 278.40 lb/day; or 40.66 tons/rolling 12-month total (ARM 17.8.749).

M.9. CHS shall operate and maintain the TGTU on the Zone A SRU to limit SO_2 emissions from the Zone A SRU-AUX4 stack to no more than 200 ppm corrected to 0% O_2 on a dry basis, per rolling 12-month average (ARM 17.8.752).

M.10. CHS shall not cause or authorize total NO_x emissions from the Zone A SRU TGI stack (SRU-AUX-4) to exceed the limits of 1.09 lb/hour; or 4.8 tons/rolling 12-month total (ARM 17.8.749).

M.11. The particulate emission rate shall not exceed that specified by rule. Process weight shall include all sour gas streams into the absorber section of the plant. Combustion air and liquid gaseous fuels to heaters or tail gas incineration will not be included (ARM 17.8.749).

M.12. CHS shall maintain the Zone A TGI stack (SRU-AUX-4) stack at a height no less than 132 feet (ARM 17.8.749).

Compliance Demonstration

M.13. CHS shall demonstrate compliance with Section III.M.1 through the monitoring, recordkeeping, and reporting requirements of 40 CFR 60 Subpart J (ARM 17.8.1212).

M.14. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart QQQ, Standards of Performance for Volatile Organic Compound Emissions from Petroleum Refinery Wastewater Systems. These regulations shall apply to the Zone A TGTU process drains and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

M.15. CHS shall conduct all monitoring and testing as required by 40 CFR 63 Subpart UUU, including maintaining records to document conformance with procedures in CHS's required operation, maintenance and monitoring plan (ARM 17.8.742 and 40 CFR 63 Subpart UUU).

M.16. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Section III.M.4 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

M.17. CHS shall operate and maintain CEMS/CERMS to measure SO_2, O_2, and volumetric flow from the Zone A SRU TGI stack (SRU-AUX-4). Compliance with the emission limitations contained in Section III.M.7, III.M.8, III.M.9, III.M.10, and III.M.11 shall be monitored using data from the CEMS required by Exhibit A, Section 6(B)(1) and (2) and in accordance with the appropriate equation(s) in Exhibit A, Section 2(A)(1), (7), (9), and (14) except when CEMS/CERMS data is not available as provided in Exhibit A, Section 2(A)(14) of the Stipulation (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003; and 40 CFR 60 Subpart J).

M.18. All gaseous (SO_2 and O_2) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR 60, Appendix F and operated in accordance with the performance specifications in 40 CFR 60, Appendix B, Performance Specification 2 and 3 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003; ARM 17.8.340 and 40 CFR 60 Subpart J).

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M.19. For the Zone A SRU TGI stack (SRU-AUX-4) CEMS, said CEMS shall be required to be maintained such that it is available and operating at least 90% of the source operating time during any reporting period (quarterly) (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.20. To accurately determine the SO_2 emission rates in pounds per hour for the Zone A SRU TGI stack (SRU-AUX-4), CHS shall perform annual source testing using EPA-approved methods (40 CFR 60, Appendix A, Methods 1-4 and 6/6c as appropriate for this Stipulation and Exhibit A), or an equivalent method approved by DEQ and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106). The annual RATAs required by Sections 6 (C) and (D) may substitute for the annual source tests provided that the flow rate RATA and the concentration RATA are performed simultaneously, and additional calculations are made to determine and report the data in pounds per hour of SO_2 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.21. All continuous stack gas flow rate monitors required by the Stipulation shall be installed, certified (on a flow rate basis), and operated in accordance with Department Method A-1 of Attachment #1 and be subject to and meet (on a flow rate basis) the quality assurance and quality control requirements of Department Method B-1 of Attachment #1 (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.22. CEMS/CERMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns, and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, CHS shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.1213).

M.23. CHS shall test the Zone A TGI (SRU-AUX-4) stack for SO_2 once every three years and for NO_x on an every 6-year basis, or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and 17.8.749).

M.24. As required by DEQ and Section III.A.1, compliance with the PM limit in Section III.M.11 shall be monitored according to 40 CFR 60, Appendix A, Method 5 (ARM 17.8.1213).

M.25. Compliance with Section III.M.12 shall be monitored by maintaining the Zone A TGI (SRU-AUX-4) stack at a height no less than 132 feet (ARM 17.8.1213).

Recordkeeping

M.26. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

M.27. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart J, including for the Zone A SRU TGI stack (SRU-AUX-4) and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart J).

M.28. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

M.29. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

M.30. CHS shall maintain records documenting the stack height to demonstrate compliance with Section III.M.12 (ARM 17.8.1213).

Reporting

M.31. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

M.32. CHS shall notify DEQ in writing of each source test a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.33. CHS shall notify DEQ in writing of each RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by DEQ (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.34. CHS shall provide DEQ copies of testing results, monitoring operations, recordkeeping, and report results as specified under 40 CFR 60 Subpart QQQ, Sections 60.693-2, 60.696, 60.697, and 60.698 (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

M.35. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to

prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

M.36. In accordance with Section 7 of the Stipulation (Appendix E of this permit), CHS shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to DEQ's Permitting and Compliance Division office in Helena and to the Regional Office from which the Compliance Officer assigned to this facility is based. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002, and May 22, 2003).

M.37. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

M.38. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.M.30;

c. A summary of compliance with applicable sections of 40 CFR 60 Subpart J, including the Zone A SRU TGTU TGI stack (SRU-AUX-4) and any other equipment, as appropriate This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart J;

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

e. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart UUU during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart UUU;

f. A summary of compliance with unit emission limits and conditions of this section and dates that quarterly reports were submitted as required by Section III.M.35 and

g. A summary of compliance with Stipulation limits and dates that quarterly reports were submitted as required by Section III.M.36.

N. EU013 – Steam Generation Units

Boiler #9, Boiler #10, Boiler #11, and Boiler #12

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
N.1, N.21, N.47, N.56, N.57	Boilers #10, 11, & 12	40 CFR 60 Subpart Db	40 CFR 60 Subpart Db	40 CFR 60 Subpart Db	Monthly and/or Quarterly
N.2, N.22, N.48, N.56, N.57	Equipment in VOC Service associated with Boilers #10 & #11	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	Semiannually and 40 CFR 60 Subpart GGG
N.3, N.23, N.49, N.56, N.57	Equipment in VOC service associated with Boiler #12	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
N.4, N.24, N.50, N.56, N.57	Boiler #12	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
N.5, N.25, N.51, N.56, N.57	Boilers #9, #10, #11, #12	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
N.6, N.26, N.46, N.54, N.56, N.57	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannually and Section III.A.2
N.7, N.27, N.56, N.57	SO_2 Boiler #10	60 ppm_{vd} H_2S in refinery fuel gas, 365-day rolling average; 4.14 tons/rolling 12-calendar month total; 2.53 lb/hr	RFG System H_2S CEMS, see Section B	On-going	Quarterly
N.8, N.28, N.29, N.37, N.39, N.42, N.46, N.56, N.57	NO_x Boiler #10	0.03 lb/MMBtu-HHV, 365-day rolling average; 13.13 tons/rolling 12-calendar month total; 3.50 lb/hr	CEMS	On-going	Quarterly
			Method 7e and 19	Every 5 years	
N.9, N.29, N.37, N.46, N.54, N.56, N.57	CO Boiler #10	0.05 lb/MMBtu-HHV, 365-day rolling average; 21.88 tons/rolling 12-calendar month total; 5.0 lb/hr	Method 10	Every 5 Years	
N.10, N.29, N.32, N.36, N.46, N.54, N.56, N.57	VOC Boiler #10	2.24 tons/rolling 12-calendar month	Firing Only Natural Gas	Ongoing	
			Method 18 (when firing RFG)	As requested by DEQ	
	Boiler #10			Ongoing	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
N.11, N.44, N.52, N.56, N.57		Stack height no less than 75 feet from ground level, Ultra-Low NO_x Burners, FGR, steam injection to the flame zone	Recordkeeping		Semiannual
N.12, N.27, N.56, N.57	SO_2 Boiler #11	3.92 lb/hour and 8.59 tons/rolling 12-calendar month	RFG System H_2S CEMS, see Section B	On-going	Quarterly
N.13, N.30, N.33, N.37, N.38, N.40, N.42, N.46, N.54, N.56, N.57	NO_x Boiler #11	6.27 lb/hour, rolling 365-day average and 27.5 tons/rolling 12-calendar month total	Method 7 CEMS/F-Factor Calc	Every Three Years Ongoing	Quarterly
N.14, N.30, N.33,N.37, N.40, N.42, N.46, N.54, N.56, N.57	CO Boiler #11	400 ppm_{vd} at 3% O_2 /30-day rolling average; 15.26 lb/hr; and 36.63 tons/rolling 12-calendar month	Method 10 CEMS	Every Three Years Ongoing	
N.15, N.32, N.35, N.56, N.57	VOC Boiler #11	4.83 tons/rolling 12-calendar months	Certify	Ongoing	
N.16, N.27, N.56, N.57	SO_2 Boiler #12	3.60 lb/hr; 7.88 tons/rolling 12-calender months; 0.05 gr/dscf (81 ppm_{vd}) H_2S rolling 12-month average	RFG System H_2S CEMS, see Section B	On-going	
N.17, N.31, N.34, N.37, N.38, N.41, N.42, N.46, N.54, N.56, N.57	NO_x Boiler #12	6.27 lb/hour, rolling 365-day average and 27.5 tons/rolling 12-calendar month total	CEMS / F-Factor Calc	On-going	
			Method 7	Every Three Years	
N.18, N.31, N.34, N.37, N.41, N.42, N.46, N.54, N.56, N.57	CO Boiler #12	400 ppmvd at 3% O_2 /30-day rolling average; 15.26 lb/hr; 36.63 tons/rolling 12-calendar months	CEMS	On-going	Quarterly
			Method 10	Every Three Years	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
N.19, N.32, N.35, N.56, N.57	VOC Boiler #12	4.81 tons/rolling 12-calendar months	Certify	Ongoing	Semiannually
N.20, N.45, N.53, N.56, N.57	Boiler #12 NO_x Control	Fit with ULNB with FGR	Recordkeeping	On-going	

Conditions

N.1. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Db -Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. These regulations shall apply to Boilers #10, #11, and #12, and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart Db).

N.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart GGG applies to the various pumps, valves, flanges, and other equipment in VOC service within the refinery fuel gas supply lines to Boilers #10 and #11 (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

N.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. These subparts apply to the various pumps, valves, flanges, and other equipment in VOC service within the refinery fuel gas supply lines to Boiler #12, and any other equipment constructed or modified after November 7, 2006 (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

N.4. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007 (ARM 17.8.340 and 40 CFR 60 Subpart Ja) (Boiler #12 is required to comply with the SO_2 emission limit or the H_2S in fuel gas limit, however, Boiler #12 does not meet the NSPS Subpart Ja definition of a process heater and is not subject to the NO_X emission limitations in Subpart Ja).

N.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD):

N.6. Opacity from Boiler #9, Boiler #10, Boiler #11, and Boiler #12 shall not exceed 20%, averaged over any 6 consecutive minutes (ARM 17.8.304(2)). During the building of new fires, cleaning of grates, or soot blowing, the provisions of ARM 17.8.304(1) and (2) shall apply, except that a maximum average opacity of 60% is permissible for not more than one 4-minute period in any 60 consecutive minutes. Such a 4-minute period means any 4 consecutive minutes (ARM 17.8.304(3)).

N.7. SO_2 emissions from Boiler #10 shall not exceed:

a. 60 ppmv H_2S in refinery fuel gas, 365-day rolling average (ARM 17.8.752)

b. 4.14 tons/rolling 12-calendar month total (ARM 17.8.749)

c. 2.53 lb/hr (ARM 17.8.752)

N.8. NO_x emissions from Boiler #10 shall not exceed:

a. 0.03 pounds per million British thermal units – Higher Heating Value (lb/MMBtu-HHV), 365-day rolling average (ARM 17.8.752)

b. 13.13 tons/rolling 12-calendar month total (ARM 17.8.749)

c. 3.5 lb/hr (ARM 17.8.749)

N.9. During periods of startup or shutdown, CO emissions from Boiler #10 shall not exceed 10.0 lb/hr, 24-hour rolling average (ARM 17.8.752). Otherwise, CO emissions shall not exceed:

a. 0.05 lb/MMBtu-HHV, 365-day rolling average (ARM 17.8.752)

b. 21.88 tons/rolling 12-calendar month total (ARM 17.8.749)

c. 5.0 lb/hr (ARM 17.8.749)

N.10. VOC emissions from Boiler #10 shall not exceed 2.24 tons/rolling 12-calendar month total (ARM 17.8.752).

N.11. Boiler #10 shall be fitted with ULNBs, flue gas recirculation (FGR) and steam injection to the flame zone (ARM 17.8.752) and have a minimum stack height of 75 feet above ground level (ARM 17.8.749).

N.12. SO_2 emissions from Boiler #11 shall not exceed 3.92 lb/hour and 8.59 tons/rolling 12-calendar months (ARM 17.8.752).

N.13. NO_x emissions from Boiler #11 shall not exceed 6.27 lb/hour, rolling 365-day average and 27.5 tons/rolling 12-calendar month total (ARM 17.8.752).

N.14. During periods of startup or shutdown, CO emissions from Boiler #11 shall not exceed 23 lb/hr on a 24-hour rolling average (ARM 17.8.752). Otherwise, CO emissions from Boiler #11 shall not exceed 400 ppm_{vd} at 3% O_2 per 30-day rolling average, 15.26 lb/hour, and 36.63 tons/rolling 12-calendar months (ARM 17.8.752).

N.15. VOC emissions from Boiler #11 shall not exceed 4.83 tons/rolling 12-calendar months (ARM 17.8.752).

N.16. SO_2 emissions from Boiler #12 shall not exceed 3.60 lb/hour, 5.84 tons/rolling 12-calendar months, and 60 ppmvd H_2S refinery fuel gas on a rolling 365-calendar day average (40 CFR 60 Subpart Ja, ARM 17.8.340, ARM 17.8.752).

N.17. NO_x emissions from Boiler #12 shall not exceed 6.27 lb/hour, rolling 365-day average and 27.5 tons/rolling 12-calendar month total (ARM 17.8.752).

N.18. During periods of startup or shutdown, CO emissions from Boiler #12 shall not exceed 23 lb/hr on a 24-hour rolling average (ARM 17.8.752). Otherwise, CO emissions from Boiler #12 shall not exceed 400 ppm_{vd} at 3% O_2 per 30-day rolling average, 15.26 lb/hour, and 36.63 tons/rolling 12-calendar months (ARM 17.8.752).

N.19. VOC emissions from Boiler #12 shall not exceed 4.81 tons/rolling 12-calendar months (ARM 17.8.752).

N.20. Boiler #12 shall be fitted with ultra-low NO_x burners with FGR (ARM 17.8.752).

Compliance Demonstration

N.21. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. These regulations shall apply to Boilers #10, #11, and #12 and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart Db).

N.22. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart GGG, Equipment Leaks of VOC in Petroleum Refineries. As applicable, these regulations shall apply to Boilers #10 and #11, and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

N.23. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart GGGa, Equipment Leaks of VOC in Petroleum Refineries. These regulations shall apply to Boilers #12, and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

N.24. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007. This subpart applies to Boiler #12 (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

N.25. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

N.26. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Section III.N.6 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.749 and ARM 17.8.1213).

N.27. Compliance monitoring for SO_2 limits for Boilers #10, #11, and #12 shall be based upon continuous H_2S concentration monitor data and fuel gas flowmeter data as required in Section III.B (ARM 17.8.749).

N.28. CHS shall operate and maintain CEMS/CERMS on the Boiler #10 stack for NO_x and O_2 (ARM 17.8.1213, ARM 17.8.340, and 40 CFR 60 Subpart Db). CHS shall operate and maintain CEMS/CERMS on the Boiler #10 stack for CO (ARM 17.8.749).

N.29. Boiler #10 shall be tested for NO_x, and CO, concurrently (using Methods 7 and 10, in accordance with Section III.A.2 (ARM 17.8.106)) at a minimum of every 5 years or another testing/monitoring schedule as may be approved by DEQ. Testing for VOC shall be at the request of DEQ (ARM 17.8.1213).

N.30. CHS shall operate and maintain CEMS/CERMS on the Boiler #11 stack for NO_x and O_2 (ARM 17.8.340 and 40 CFR 60 Subpart Db), and CO (ARM 17.8.1213).

N.31. CHS shall operate and maintain CEMS/CERMS on the Boiler #12 stack for NO_x (ARM 17.8.340 and 40 CFR 60 Subpart Db); O_2 (ARM 17.8.340 and 40 CFR 60 Subpart Db); and CO (ARM 17.8.1213).

N.32. Firing Boiler #10, Boiler #11, and Boiler #12 solely on natural gas shall demonstrate compliance with the applicable VOC limits (ARM 17.8.749).

N.33. Boiler #11 shall be tested for NO_x, and CO concurrently (using Methods 7 and 10, respectively, in accordance with Section III.A.2 (ARM 17.8.106)) once every three years, or another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and ARM 17.8.106).

N.34. Boiler #12 shall be tested once every three years, or according to another testing/monitoring schedule as may be approved by DEQ, for NO_x and CO concurrently, and the results submitted to DEQ in order to demonstrate compliance with the NO_x and CO emission limits contained in Sections III.N.17 and III.N.18 (ARM 17.8.105 and ARM 17.8.749).

N.35. CHS shall monitor compliance with the VOC limits for Boilers #11 and #12 listed in Sections III.N.15 and III.N.19 through maintaining records of the fuel gas consumed and using an appropriate emission factor as approved by DEQ (ARM 17.8.1213).

N.36. In addition to the testing required in Section III.N.29 compliance monitoring for VOC emission limits for Boiler #10 shall be based upon actual fuel-burning rates and the emission factors developed from the most recent compliance source test of each fuel being combusted. New emission factors shall become effective within 60 days after the completion of a source test accepted by DEQ (ARM 17.8.1213 and ARM 17.8.749).

N.37. The volumetric stack flow rate monitor shall be used in conjunction with the NO_x CEMS and CO CEMS to determine compliance with the lb/hr NO_x and CO limits for the Boilers (ARM 17.8.1213).

N.38. For Boilers #10, #11 and #12, compliance with lb/MMBtu limits shall be monitored using statistically significant F-factor values. The factors will be updated on a regular basis using data from all valid fuel gas samples representative of the fuel gas burned. The method of compliance monitoring involving F-factor statistical significance is subject to change upon agreement with DEQ and CHS (ARM 17.8.1213 and referencing methodologies described in 40 CFR 60, Appendix A, Reference Method 19).

N.39. Boiler #10's continuous NO_x and O_2 concentration monitors shall comply with all applicable provisions of 40 CFR Parts 60.5 through 60.13, Subparts Db, Appendix B (Performance Specifications 2 and 3), and Appendix F (Quality Assurance/Quality Control) provisions (ARM 17.8.1213 and ARM 17.8.749).

N.40. Boiler #11's CEMS and CERMS required by this permit shall comply with all applicable provisions of 40 CFR Part 60.5 through 60.13, Subpart Db 60.40b through 60.49b and Appendix B, Performance Specifications 2, 3, 4 or 4A, 6, and Appendix F (ARM 17.8.1213 and ARM 17.8.749).

N.41. Boiler #12's CEMS and CERMS required by this permit shall comply with all applicable provisions of 40 CFR Part 60.5 through 60.13, Subpart Db 60.40b through 60.49b, Appendix A, Appendix B, Performance Specifications 2, 3, 4 or 4A, 6, and Appendix F (ARM 17.8.749 and ARM 17.8.342).

N.42. CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns, and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.1213).

N.43. CHS shall install and operate a volumetric stack flow rate monitor on Boilers #10, #11, and #12. The volumetric flow rate monitor shall comply with the Billings/Laurel SIP Pollution Control Plan Exhibit A, Attachment 1 Methods A-1 and B-1 (ARM 17.8.749).

N.44. Compliance with Section III.N.11 shall be monitored by ensuring that Boiler #10 operates with steam injection to the flame zone, low NO_x burners and the FGR system, and that the stack remains at a height no less than 75 feet above ground level, as demonstrated through recordkeeping (ARM 17.8.1213).

N.45. Compliance with Section III.N.20 shall be monitored by ensuring that Boiler #12 operates with ultra-low NO_x burners and the FGR system, as demonstrated through recordkeeping (ARM 17.8.1213).

Recordkeeping

N.46. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

N.47. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart Db (ARM 17.8.340 and 40 CFR 60 Subpart Db).

N.48. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGG (ARM 17.8.340 and 40 CFR 60, Subpart GGG).

N.49. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60, Subpart GGGa).

N.50. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

N.51. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

N.52. CHS shall maintain inspection/ operational records that Boiler #10 operated with steam injection to the flame zone, low NO_x burners, and the FGR system. CHS shall record any change affecting the actual height of the stack to document compliance with Section III.N.11 (ARM 17.8.1213).

N.53. CHS shall maintain inspection/ operational records that Boiler #12 operated with ULNBs and the FGR system to document compliance with Section III.N.20 (ARM 17.8.1213).

Reporting

N.54. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

N.55. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

N.56. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements.

N.57. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.N.52 and III.N.53

c. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Db during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Db;

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

f. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

g. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

h. Dates that quarterly reports were submitted as required by Section III.N.55; and

O. EU014 – Tank Farm (non-Wastewater)

- *Refinery MACT I Group 1 Storage Vessels: Tanks 70, 74, 75, 78, 82, 83, 95, 96, 100, 101, 102, 103, 108, 109, 110, 112, 135, 136, 137, 138, 142, 143, 153 and 160*
- *Refinery MACT I Group 2 Storage Vessels: Tanks 56, 61, 62, 73, 79, 80, 85, 86, 88, 91, 93, 94, 104, 111, 113, 114, 117, 120, 122, 123, 126, 127, 133, 139, 144, 145, 146, 147, 148, 149, 150, and 152*
- *Refinery MACT I Exempt : Pressure vessels, not organic HAP, not refining*

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
O.1, O.15, O.29, O.39, O.40	Tanks 70, 75, 83, 95, 96, 100, 101, 102, 103, 108, 109, 110, 112, 135-138, 142, 143, 153, and 160	40 CFR 60 Subpart Kb	40 CFR 60.113b and/or 40 CFR 60.114b	As specified	Semiannually
O.2, O.16, O.30, O.39, O.40	Tanks 122, 126, 127,133, 148, 149, 150 and 152	40 CFR 60 Subpart UU	40 CFR 60 Subpart UU	As Required by Department and Section III.A.1	Semiannually
O.3, O.18, O.39, O.40	Storage Tanks 135 and 136	Submerged fill piping, external floating roof	Recordkeeping	Ongoing	Semiannually
O.4, O.19, O.32, O.38, O.39, O.40	VOC Tank 133	12.3 tons/rolling 12-calendar month	AP-42 Calculation Methods	Monthly	Quarterly
O.5, O.20, O.39, O.40	Tank 133	Submerged fill with pressure/vacuum vent	Recordkeeping	Ongoing	Semiannually
O.6, O.22, O.33, O.34, O.39, O.40	Fugitive emissions Components of Tanks 133, 135 – 139, 142, 143, 146, 147, 152, 153 and additive tanks 1-4	40 CFR 60 Subpart GGGa and VVa	40 CFR 60 Subpart VVa, 40 CFR 60 Subpart GGGa An LDAR program associated with the fugitive tank components was determined to be BACT for referenced tanks. GGGa and VVa, do not apply to the fugitive components	40 CFR 60 Subpart VVa, 40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
O.7, O.23, O.28, O.37, O.39, O.40	Opacity Tank 133	20% - Averaged over 6 consecutive minutes. Except when 40 CFR UU is applicable.	Method 9	As Required by DEQ and Section III.A.1	Semiannual and Section III.A.2
O.8, O.24, O.25, O.26, O.35, O.39, O.40	40 CFR 63, Subpart CC	40 CFR 63, Subpart CC	40 CFR 63, Subpart CC	40 CFR 63, Subpart CC	40 CFR 63, Subpart CC
O.9, O.17, O.31, O.38, O.39, O.40	Tanks 137, 138, 142, 143	Internal floating roof and submerged fill piping	Recordkeeping	On-going	Quarterly
O.10, O.17, O.31, O.38, O.39, O.40	Tank 139	Fixed roof with pressure/vacuum vents and submerged fill (#1 and #2 diesel fuel only)	Recordkeeping	On-going	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
O.11, O.17, O.31, O.38, O.39, O.40	VOC limit	39.23 tons/rolling 12-calendar month	AP-42 Calculation Methods	Monthly	Quarterly
O.12, O.19, O.36, O.39, O.40	Tanks 146 and 147	Fixed roof and submerged fill piping	Recordkeeping	On-going	Semiannually
O.13, O.19, O.36, O.39, O.40	Tanks 146 and 147	Intermediate Products with true vapor pressure less than 0.49 actual pounds per square inch	Recordkeeping	On-going	Semiannually
O.14, O.27, O.36, O.39, O.40	Tank 152	Fixed roof and submerged piping with steam coils	Recordkeeping	On-going	Semiannually

Conditions

O.1. All volatile organic storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after July 23, 1984, shall comply with the requirements of 40 CFR 60 Subpart Kb when applicable. These requirements shall be as specified in 40 CFR 60.110b through 60.115b (The affected tanks include but are not

limited to: Tanks 70, 75, 83, 95, 96, 100, 101, 102, 103, 108, 109, 110, 112, 135-138, 142, 143, 153, and 160) (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

O.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart UU – Standards of Performance for Asphalt Processing. This subpart applies to, but is not limited to, any asphalt storage tank installed since November 18, 1980. It includes the requirement to maintain 0% opacity, except for one 15-minute period every 24-hours (ARM 17.8.340 and 40 CFR 60 Subpart UU).

O.3. Storage Tanks 135 and 136 shall each be equipped with an external floating roof and submerged fill piping (ARM 17.8.752).

O.4. VOC emissions from Storage Tank 133 shall not exceed 12.3 tons/rolling 12-calendar month total (ARM 17.8.749).

O.5. Storage Tank 133 shall be a fixed roof tank with a pressure/vacuum vent and submerged fill piping. While in asphalt and gas oil service, the tank may be heated and may be operated without the pressure/vacuum vent (ARM 17.8.752).

O.6. CHS shall comply with all applicable maintenance and monitoring program requirements as described in 40 CFR 60 Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 meeting the requirements of 40 CFR 60 Subpart GGGa except for requirements specifically exempted (The applicable units include, but may not be limited to, fugitive emission components in VOC service that are associated with Tanks 133, 135-139, 142, 143, 146, 147, 152, 153, and additive tanks 1-4) (ARM 17.8.752).

O.7. Except where 40 CFR 60 Subpart UU is applicable, CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 (2)).

O.8. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC-National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries, including compliance with specific requirements in 40 CFR 60 Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service within the Tank Farm. Subpart CC applies to, but is not limited to, all Group 1 and Group 2 Storage Vessels (ARM 17.8.342 and 40 CFR 63 Subpart CC).

O.9. VOC emissions from Storage Tanks 137, 138, 142, and 143 shall be controlled by the installation and use of an internal floating roof and submerged fill piping (ARM 17.8.340, 40 CFR 60 Subpart Kb, and ARM 17.8.752).

O.10. Storage Tank 139 shall only store #1 or #2 diesel fuel and the VOC emissions from Storage Tank 139 shall be controlled by the installation and use of a fixed roof with pressure/vacuum vents and a submerged fill piping (ARM 17.8.749).

O.11. The total annual VOC emissions from the new truck loading rack, VCU and associated equipment (which includes the new truck loading rack, VCU and all associated storage tanks (135-139, 142, 143 and Additive Tanks # 1-4), and any associated fugitives shall not exceed 39.23 TPY based on a rolling 12-calendar month total. This is total combined VOC emission limit for the applicable units listed in this Section and Section P (ARM 17.8.749).

O.12. Tank 146 and Tank 147 shall be a fixed roof tank with submerged fill piping (ARM 17.8.752).

O.13. Storage Tanks 146 and 147 shall store only intermediate products with a true vapor pressure less than 0.49 actual pounds per square inch (psia) (ARM 17.8.749).

O.14. Tank 152 shall be a fixed roof tank utilizing submerged fill piping and is permitted to operate with steam coils (ARM 17.8.752).

Compliance Demonstration

O.15. CHS shall monitor compliance with Section III.O.1 by complying with 40 CFR 60.113b and/or 40 CFR 60.114b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

O.16. CHS shall monitor compliance with Section III.O.2 as required by 40 CFR 60, Subpart UU (ARM 17.8.340 and 40 CFR 60 Subpart UU).

O.17. Combined VOC emissions from Storage Tanks 135-139, 142-143 and Additive Tanks 1-4 shall be calculated and monitored utilizing AP-42 calculation methods with key parameters of throughput and material properties. Tank emissions during periods the tank roofs are landed on its legs shall be calculated using appropriate AP-42 emissions equations (ARM 17.8.749).

O.18. CHS shall monitor compliance with Section III.O.3 through recordkeeping of maintenance/inspection of the external floating roofs (ARM 17.8.1213).

O.19. VOC emissions from Storage Tank 133, Tank 146, Tank 147 and Tank 152 shall be calculated and monitored utilizing AP-42 equations and the AP-42 calculation methods with key parameters of throughput and material properties (ARM 17.8.749, ARM 17.8.1212).

O.20. CHS shall document any timeframe in which asphalt or gas oil is stored in Storage Tank 133, and timeframes that the pressure vacuum vent is not operated (ARM 17.8.1213).

O.21. CHS shall meet all the applicable requirements of 40 CFR 60 Subpart GGGa (ARM 17.8.1213).

O.22. Except for requirements specifically exempted in 40 CFR 60 Subpart GGGa, CHS shall institute a monitoring and maintenance program as described in 40 CFR 60 Subpart VVa as applicable (ARM 17.8.749).

O.23. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Section III.O.7 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.749 and ARM 17.8.1213).

O.24. CHS shall meet the requirements of all testing and procedures of 40 CFR 63 Subpart CC—National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. These regulations shall apply to the Tank Farm and any other equipment, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart CC).

O.25. CHS shall institute the monitoring and maintenance program in accordance with 40 CFR 60 Subpart VV and 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

O.26. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all applicable pumps, shutoff valves, relief valves and other piping and valves within the Tank Farm as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.340 and 40 CFR 63 Subpart CC).

O.27. CHS shall monitor compliance with Section III.O.15 through recordkeeping of maintenance/inspection of the Tank 152 (ARM 17.8.1213).

Recordkeeping

O.28. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

O.29. CHS shall maintain the records required by 40 CFR 60.115b and 40 CFR 60.116b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

O.30. CHS shall maintain records as required by 40 CFR 60 Subpart UU (ARM 17.8.340 and 40 CFR 60 Subpart UU).

O.31. CHS shall document, by month, the total VOC emissions from Storage Tanks 135-139, 142, 143; and Additive Tanks 1-4 and all associated fugitive sources. This must also include

emissions while the roofs of the internal floating and external floating tanks are floating and emissions during time periods that the tank roofs are landed on the legs. This monthly information and the emissions relating to the operation of the new truck loading rack, VCU and all associated fugitives sources shall be used to verify compliance with the rolling 12-month limitation in Section III.P.16 and III.O.11, as applicable (ARM 17.8.749).

O.32. CHS shall document by month the total VOC emissions from Tank 133. The monthly information shall be used to verify compliance with the rolling 12-month limitations listed in Section III.O.4 (ARM 17.8.749).

O.33. CHS shall comply with the recordkeeping requirements of 40 CFR 60 Subpart GGGa for applicable tanks (Tanks 133, 135-139, 142, 143, 146, 147, 152, 153, and additive tanks 1-4) (ARM 17.8.749).

O.34. Except for requirements specifically exempted in 40 CFR 60 Subpart GGGa, CHS shall comply with the applicable monitoring and maintenance program recordkeeping requirements of 40 CFR 60 Subpart VVa for Tanks 133, 135-139, 142, 143, 146, 147, 152, 153, and additive tanks 1-4 (ARM 17.8.749).

O.35. CHS shall comply with the recordkeeping requirements of 40 CFR 63 Subpart CC and Subpart VV as applicable (ARM 17.8.342 and 40 CFR 63 Subpart CC).

O.36. CHS shall document annually the total VOC emissions from Tank 146, 147 and 152. The emissions shall be submitted with the annual emissions reporting (ARM 17.8.749). CHS shall maintain records in conjunction with Section III.O.19, as demonstration for Section III.O.13 (ARM 17.8.1212).

Reporting

O.37. Any compliance source test reports must be submitted in accordance with the Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

O.38. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:
Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted

O.39. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

O.40. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the

source test was submitted to DEQ, and noting if the test indicated compliance or noncompliance with associated limits;

b. Dates that quarterly reports were submitted as required by Section III.O.38;

c. Summary of records maintained as required by Section III.O.18;

d. Summary of records maintained as required by Section III.O.20;

e. Summary of records required by Section III.O.36;

f. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Kb during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Kb;

g. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart UU during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart UU;

h. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC (including 40 CFR 60 Subpart VV) during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC; and

i. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa (including 40 CFR 60 Subpart VVa) during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa.

P. EU015– Transfer Facilities

Asphalt Loading Heater #1, Truck Loading Rack and VCU, Railcar Product Loading Rack and VCU, Railcar Gasoline Component Unloading

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
P.1, P.17, P.33, P.34, P.40, P.41, P.42, P.43	Truck & Railcar Product Loading Racks and VCUs	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannually and 40 CFR 63 Subpart CC
P.2, P.18, P.35, P.42, P.43	Asphalt Loading Heater #1	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
P.3, P.17, P.19, P.33, P.34, P.36, P.40, P.41, P.42, P.43	Product Loading Racks and VCUs	Operate and Maintain as Listed	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannually and 40 CFR 63 Subpart CC
		Truck Rack VCU Stack – at least 40 feet above grade	Certify	Ongoing	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
P.4, P.20, P.38, P.39, P.42, P.43	Railcar Gasoline Component Unloading	Proper Design and Operating Practices while unloading gasoline components via railcars	Certify	On-going	Semiannually
P.5, P.21, P.23, P.33, P.40, P.42, P.43	VOC	10 mg/L of Gasoline Loaded	40 CFR 63.425	Every 5 Years	Semiannually
P.6, P.22, P.23, P.33, P.40, P.42, P.43	CO	10 mg/L of Gasoline Loaded	Method 10	As Required by DEQ and Section III.A.1	Semiannually
P.7, P.22, P.23, P.33, P.40, P.42, P.43	NO_x	4 mg/L of Gasoline Loaded	Method 7	As Required by DEQ and Section III.A.1	Semiannually
P.8, P.24, P.33, P.40, P.42, P.43	PM from Railcar Light Product Loading Rack	0.10 gr/dscf corrected to 12% CO_2	Method 5	As Required by DEQ and Section III.A.2	Semiannually
P.9, P.25, P.33, P.40, P.42, P.43	Opacity from Railcar Loading Rack VCU	10%	Method 9	As Required by DEQ and Section III.A.1	Semiannually
P.10, P.11, P.26, P.27, P.37, P.42, P.43	Device to Detect Presence of a Flame (VCU flares)	Operate and Maintain	Certify	Ongoing	Semiannually
P.12, P.28, P.41, P.42, P.43	Equipment Leaks of VOC	40 CFR 60.482-1 through 60.482-10	Recordkeeping	During Performance of Maintenance Program	Semiannually
P.13, P.29, P.42, P.43	Equipment Leaks of VOC	40 CFR 60 Subpart VVa, and meeting the requirements of 40 CFR 60 Subpart GGGa	Recordkeeping	During Performance of Maintenance Program	Semiannually
P.14, P.30, P.42, P.43	Truck Light Product Loading Rack VCU	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually
P.15, P.31, P.42, P.43	Gasoline and Distillate Truck Loading Rack	40 CFR 60 Subpart XX	40 CFR 60 Subpart XX	40 CFR 60 Subpart XX	Semiannually
P.16, P.21, P.32, P.40, P.42, P.43	Truck loading rack, VCU and associated equipment, and any associated fugitives	VOC limit of 39.23 TPY	Recordkeeping	On-going	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements

Conditions

P.1. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC-National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries, including the requirement to comply with specific requirements under 40 CFR 63 Subpart R. These regulations shall apply to the truck loading rack and vapor combustion unit (VCU), as well as the railcar light product loading rack and VCU, and any other equipment, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart CC).

P.2. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD):

P.3. The truck loading rack and the railcar light product loading rack and their VCUs shall be operated and maintained as follows:

a. CHS's product loading rack shall be equipped with a vapor collection system designed to collect the organic compound vapors displaced from cargo tanks during gasoline product loading (ARM 17.8.342, ARM 17.8.752 and 40 CFR 63 Subpart CC).

b. CHS's collected vapors shall be routed to the VCU at all times. In the event the VCU is inoperable, CHS may continue to load distillates with a Reid vapor pressure of less than 27.6 kilopascals, provided DEQ is notified in accordance with the requirements of ARM 17.8.110 (ARM 17.8.749).

c. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the gasoline cargo tank from exceeding 4,500 Pascals (Pa) (450 millimeters (mm) of water) during product loading. This level shall not be exceeded when measured by the procedures specified in the test methods and procedures in 40 CFR 60.503(d) (ARM 17.8.342 and 40 CFR 63 Subpart CC).

d. No pressure-vacuum vent in the permitted terminal's vapor collection system shall begin to open at a system pressure less than 4,500 Pa (ARM 17.8.342 and 40 CFR 63 Subpart CC).

e. The vapor collection system shall be designed to prevent any VOC vapors collected at one loading rack from passing to another loading rack (ARM 17.8.342 and 40 CFR 63 Subpart CC).

f. Loadings of liquid products into truck gasoline cargo tanks shall be limited to vapor-tight gasoline cargo tanks using the following procedures (ARM 17.8.342 and 40 CFR 63 Subpart CC):

i. CHS shall obtain annual vapor tightness documentation described in the test methods and procedures in 40 CFR 63.425(e) for each truck gasoline cargo tank that is to be loaded at the product loading rack.

ii. CHS shall require the cargo tank identification number to be recorded as each gasoline cargo tank is loaded at the terminal.

iii. CHS shall cross-check each tank identification number obtained during product loading with the file of tank vapor tightness documentation within 2 weeks after the corresponding cargo tank is loaded.

iv. CHS shall notify the owner or operator of each non-vapor-tight cargo tank loaded at the product loading rack within 3 weeks after the loading has occurred.

v. CHS shall take the necessary steps to ensure that any non-vapor-tight cargo tank will not be reloaded at the product loading rack until vapor tightness documentation for that cargo tank is obtained, which documents that:

aa. The truck gasoline cargo tank meets the applicable test requirements in 40 CFR 63.425(e).

bb. For each gasoline cargo tank failing the test requirements in 40 CFR 63.425(f) or (g), the gasoline cargo tank must either:

i. Before the repair work is performed on the cargo tank, meet the test requirements in 40 CFR 63.425 (g) or (h), or

ii. After repair work is performed on the cargo tank before or during the tests in 40 CFR 63.425 (g) or (h), subsequently passes the annual certification test described in 40 CFR 63.425(e).

vi. Loadings of liquid products into railcar gasoline cargo tanks shall be limited to vapor-tight gasoline cargo tanks (ARM 17.8.342 and ARM 17.8.752).

vii. CHS shall ensure that loadings of gasoline cargo tanks at the product loading rack are made only into cargo tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system (ARM 17.8.342 and 40 CFR 63 Subpart CC).

viii. CHS shall ensure that the terminal's and the cargo tank's vapor recovery systems are connected during each loading of a gasoline cargo tank at the truck loading rack (ARM 17.8.342 and 40 CFR 63 Subpart CC).

g. Loadings of liquid products into railcar gasoline cargo tanks shall be limited to vapor-tight gasoline cargo tanks (ARM 17.8.342, ARM 17.8.752 and 40 CFR 63 Subpart CC).

h. CHS shall ensure that loadings of gasoline cargo tanks at the product loading rack are made only into cargo tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system (ARM 17.8.342 and 40 CFR 63 Subpart CC).

i. CHS shall ensure that the terminal's and the cargo tank's vapor recovery systems are connected during each loading of a gasoline cargo tank at the truck loading rack (ARM 17.8.342 and 40 CFR 63, Subpart CC).

j. The truck loading rack VCU stack shall be at least 40 feet above grade (ARM 17.8.749).

P.4. For railcar gasoline component unloading, CHS shall implement proper design and operating practices while unloading gasoline components via railcars (ARM 17.8.752).

P.5. The total VOC emissions to the atmosphere from the truck loading VCU or the railcar loading VCU due to loading liquid product into cargo tanks shall not exceed 10.0 milligrams per liter (mg/L) of gasoline loaded (ARM 17.8.342, ARM 17.8.752 and 40 CFR 63 Subpart CC).

P.6. The total CO emissions to the atmosphere from the truck loading VCU or the railcar loading VCU due to loading liquid product into cargo tanks shall not exceed 10.0 mg/L of gasoline loaded (ARM 17.8.752).

P.7. The total NO_x emissions to the atmosphere from the truck loading VCU or the railcar loading VCU due to loading liquid product into cargo tanks shall not exceed 4.0 mg/L of gasoline loaded (ARM 17.8.752).

P.8. The total PM emissions from the atmosphere from the railcar light product loading VCU shall not exceed 0.10 gr/dscf corrected to 12% CO_2 (ARM 17.8.752).

P.9. CHS shall not cause or authorize to be discharged into the atmosphere from the enclosed railcar light product loading rack VCU any visible emissions that exhibit an opacity of 10% or greater (ARM 17.8.752).

P.10. For the truck loading VCU, CHS shall install and operate a continuous parameter monitoring system capable of measuring temperature in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs (ARM 17.8.342, ARM 17.8.752, 40 CFR 63 Subpart CC).

P.11. CHS shall install and continuously operate and maintain a thermocouple and an associated recorder for temperature monitoring in the firebox or ductwork immediately downstream in a position before any substantial heat occurs and develop an operating parameter value in accordance with the provisions of 40 CFR 63.425 and 63.427 for the railcar light product VCU. CHS shall install and continuously operate an ultraviolet flame detector and relay system which will render the loading rack inoperable if a flame is not present at the railcar light product VCU firebox, or any other equivalent device to detect the presence of a flame (ARM 17.8.342, ARM 17.8.752 and 40 CFR 63 Subpart CC).

P.12. CHS shall monitor and maintain all pumps, shutoff valves, relief valves and other piping and valves associated with the gasoline truck and railcar light loading racks as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.749; ARM 17.8.342; and 40 CFR 63 Subpart CC).

P.13. A monitoring and maintenance program, as described under 40 CFR 60 Subpart VVa, and meeting the requirements of 40 CFR 60 Subpart GGGa shall be instituted for the following:

a. Truck loading rack and VCU (MAQP #1821-28) (ARM 17.8.340 and ARM 17.8.749).

b. Railcar gasoline component unloading (ARM 17.8.340 and ARM 17.8.752).

P.14. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007 (ARM 17.8.340 and 40 CFR 60 Subpart Ja). (The Gasoline and Distillate Truck Loading Rack VCU is subject to Subpart Ja as a fuel combustion device burning fuel gas which is inherently low in sulfur content. The VCU does not meet the definition of a process heater and therefore is not subject to the NO_X emissions limitations of Subpart Ja).

P.15. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart XX- Standards of Performance for Bulk Gasoline Terminals (ARM 17.8.340 and 40 CFR 63 Subpart XX – applies to the gasoline and distillate truck loading rack).

P.16. The total annual VOC emissions from the truck loading rack, VCU and associated equipment (which includes all associated storage tanks (135-139, 142, 143 and Additive Tanks # 1-4), and any associated fugitives shall not exceed 39.23 TPY based on a rolling 12-calendar month total. This is total combined VOC emission limit for the applicable units listed in this section and the applicable tanks (Tanks 135-139, 142, 143 and Additive tanks #1-4) in Section O (ARM 17.8.749).

Compliance Demonstration

P.17. CHS shall follow the applicable procedures as referenced below:

a. To perform the testing and monitoring procedures specified in 40 CFR §63.425 and 63.427 of Subpart R, except §63.425(d) or §63.427(c) (ARM 17.8.342 and 40 CFR 63 Subpart CC).

b. CHS shall comply with all test methods and procedures as specified by Subpart R §63.425 (a) through (c), and §63.425 (e) through (h). This shall apply to, but not be limited to, the product loading racks, the vapor processing systems, and all gasoline equipment located at the product loading racks (ARM 17.8.342 and 40 CFR 63 Subpart CC).

P.18. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

P.19. Compliance with Section III.P.3.j. shall be monitored by ensuring that the truck loading rack VCU stack is no less than 40 feet above grade, as demonstrated by recordkeeping (ARM 17.8.1213).

P.20. Compliance with Section III.P.3 shall be monitored by certifying proper design and operating practices were used while unloading gasoline components via railcars (ARM 17.8.1213).

P.21. The truck loading rack VCU shall be tested for VOCs, and compliance monitored with the emission limitation contained in Section III.P.5, on an every 5-year basis or another testing/monitoring schedule as may be approved by DEQ. CHS shall perform the test methods and procedures as specified in 40 CFR 63.425, Subpart R (ARM 17.8.105; ARM 17.8.342; and 40 CFR 63 Subpart CC).

P.22. The truck loading rack and railcar light product loading rack VCUs shall each be tested for CO and NO_x, concurrently (using Methods 10 and 7 respectively, in accordance with Section III.A.2 (ARM 17.8.106)), and compliance monitored with the CO and NO_x emission limitations contained in Section III.P.6 and III.P.7 as required by DEQ (ARM 17.8.105).

P.23. Fuel flow rates, production information, and any other data DEQ believes is necessary shall be recorded during the performance of source tests (ARM 17.8.749).

P.24. CHS shall monitor compliance with Section III.P.8 by conducting a Method 5 stack test, as required by DEQ (ARM 17.8.1213).

P.25. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Sections III.P.9 shall be monitored using EPA Reference Method 9 testing by a qualified observer (ARM 17.8.1213).

P.26. Compliance with Section III.P.10 shall be monitored by operating and maintaining a continuous parameter monitoring system capable of measuring temperature in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs (ARM 17.8.1213).

P.27. Compliance with Section III.P.11 shall be monitored by maintaining a thermocouple and an associated recorder to detect the operating temperature of the firebox, and an ultraviolet flame detector and relay system, which will render the railcar loading rack inoperable if a flame is not present at the VCU flare tip, or any other equivalent device, is operating to detect the presence of a flame (ARM 17.8.1213).

P.28. CHS shall maintain records, under CHS's control, of monitoring and maintenance activities on all pumps, shutoff valves, relief valves and other piping and valves associated with the gasoline loading racks as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.1213).

P.29. CHS shall maintain records, under CHS's control of monitoring and maintenance activities, as described under 40 CFR 60 Subpart VVa, and meeting the requirements of 40 CFR 60 Subpart GGGa (ARM 17.8.749).

P.30. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007 (ARM 17.8.340 and 40 CFR 63 Subpart Ja).

P.31. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart XX- Standards of Performance for Bulk Gasoline Terminals (ARM 17.8.340 and 40 CFR 63 Subpart XX).

P.32. CHS shall demonstrate compliance with the limit in Section III.P.16 by calculating and tracking actual VOC emissions monthly for the rolling 12-month total VOC emissions (ARM 17.8.749).

Recordkeeping

P.33. All source test recordkeeping shall be performed in accordance with the appropriate test method being used and Section III.A.2 (ARM 17.8.106).

P.34. CHS shall keep records as required by 40 CFR, Part 63, National Emission Standards for Hazardous Air Pollutants (ARM 17.8.342 and 40 CFR 63 Subpart CC).

a. Subpart CC - CHS shall keep all records as required by 40 CFR 63.428 (b) and (c), (g)(1), and (h)(1) through (h)(3) of Subpart R.

b. Subpart CC - CHS shall keep all records as required by 40 CFR 63.654.

P.35. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

P.36. CHS shall maintain records that the VCU stack meets the requirements of Section III.P.3j (ARM 17.8.1213).

P.37. CHS shall maintain records that:

a. A continuous parameter monitoring system, capable of measuring temperature in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs, is operating to demonstrate compliance with Section III.P.26; and

b. A thermocouple and an associated recorder is operating to detect the operating temperature of the firebox, and that an ultraviolet flame detector and relay system, which will render the railcar loading rack inoperable if a flame is not present at the VCU flare tip, or any other equivalent device, is operating to detect the presence of a flame, to document compliance with Section III.P.27 (ARM 17.8.1213).

P.38. CHS shall maintain records that proper design and operating practices were implemented while unloading gasoline components via railcars (ARM 17.8.1212).

P.39. CHS shall record the number of gallons of gasoline component material unloaded via railcars and the subsequent Reid vapor pressure of the material (ARM 17.8.1212).

Reporting

P.40. Any compliance source test reports must be submitted in accordance with the Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

P.41. CHS shall supply DEQ with the following reports, as required by 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (ARM 17.8.342 and 40 CFR 63 Subpart CC).

a. Subpart CC - CHS shall furnish all reports to DEQ as required by 40 CFR 63.428 (b) and (c), (g)(1), and (h)(1) through (h)(3) of Subpart R.

b. Subpart CC - CHS shall furnish all reports to DEQ as required by 40 CFR 63.654.

P.42. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

P.43. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQduring the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.P.36, III.P.37, III.P.38, III.P.39 during the reporting period;

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart XX during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart XX;

f. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

g. A summary of compliance with unit emission limits and conditions of this section.

Q. EU016 – Wastewater Treatment Units

Separators

API separators: T-23A/B, TK-3437, TK-3447
Separators – slop oil facilities: T-16, T-17, T-18
Dissolved gas flotation units: TK-3448, TK-3458
Other Separators: TK-23, T-14

Storage Vessels

Wastewater: T-20, T-25, TK-25, TK-3436
Slop Oil: TK-44, TK-118
Sour Water: TK-128, TK-129
Foam/sludge: TK-3449, TK-3450, TK3451

Control Devices:

F-3401A/B/C Activated Carbon Beds
034IN0001 Wastewater Area Combustor

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
Q.1, Q.8, Q.15, Q.21, Q.22	Wastewater Treatment	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
Q.2, Q.9, Q.16, Q.21, Q.22	Tanks 118	40 CFR 60 Subpart Kb	40 CFR 60.113b and/or 40 CFR 60.114b	As Specified	Semiannually and 40 CFR 60 Subpart Kb
Q.3, Q.10, Q.18, Q.21, Q.22	Tank 128 & 129	Internal floating roof and submerged fill.	Certify	Semiannually	Semiannually
Q.4, Q.5, Q.11, Q.12, Q.20, Q.21, Q.22	API Separator(s), DNF Units	Vapor collection system	Certify	Semiannually	Semiannually
Q.6, Q.13, Q.19, Q.21, Q.22	Thermal Combustor	A program meeting the requirements of 40 CFR 60 Subpart GGGa	A program meeting the requirements of 40 CFR 60 Subpart GGGa	A program meeting the requirements of 40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
Q.7, Q.14, Q.17, Q.21, Q.22	Tank 128 & 129 (Group 2 Storage Vessels)	Recordkeeping & Reporting	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannually

Conditions

Q.1. CHS shall comply with all requirements of 40 CFR 60 Subpart QQQ-Standards of Performance for VOC Emissions. This subpart applies to, but is not limited to TK-23, T-23A/B, T-16, T-17, T-18 and TK-3436, and any other applicable equipment. All equipment shall be operated and maintained as required under 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

Q.2. All volatile organic storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after July 23, 1984, shall comply with the requirements of 40 CFR 60 Subpart Kb. These requirements shall be as specified in 40 CFR 60.110b through 60.115b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

Q.3. VOC emissions from the Sour Water Storage Tanks (Tanks #128 & #129) shall be controlled by the installation and use of internal floating roofs and submerged fill pipes (ARM 17.8.752).

Q.4. CHS shall equip, operate, and maintain the API Separators (TK-3437 and TK-3447) with a vapor collection system to collect and route emissions from the enclosed vapor space to a carbon adsorption system or thermal combustor to comply with 40 CFR 60 Subpart QQQ (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart QQQ).

Q.5. CHS shall equip, operate, and maintain the Dissolved Gas Flotation (DGF) Units (TK-3448 and TK-3458) with a vapor collection system to collect and route emissions from the enclosed vapor space to a carbon adsorption system or thermal combustor that meets the requirements of 40 CFR 60 Subpart QQQ. These two units are not subject to 40 CFR 60 Subpart QQQ (ARM 17.8.752).

Q.6. CHS shall implement a Leak Detection and Repair (LDAR) program meeting 40 CFR 60 Subpart GGGa for all new components in VOC service installed as a part of the thermal combustor project system (ARM 17.8.752).

Q.7. CHS shall comply with 40 CFR 63 Subpart CC including as applicable to Tank 128 and 129 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

Compliance Demonstration

Q.8. CHS shall meet the requirements of all applicable testing and procedures of 40 CFR 60 Subpart QQQ-Standards of Performance for VOC Emissions. These regulations shall apply all equipment subject to Subpart QQQ, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

Q.9. CHS shall monitor compliance with Section III.Q.2 by complying with 40 CFR 60.113b and/or 40 CFR 60.114b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

Q.10. Compliance with Section III.Q.3 shall be monitored by maintaining the submerged fill and internal floating roofs on the sour water storage tanks, as demonstrated through recordkeeping (ARM 17.8.1213).

Q.11. Whether a carbon adsorber is used for VOC emissions reduction or whether a thermal incinerator is used for VOC control, CHS shall comply with the appropriate monitoring as required by 40 CFR 60.695 to demonstrate compliance with Sections III.Q.4 and Q.5 (ARM 17.8.749 and 40 CFR Subpart QQQ).

Q.12. When a carbon adsorber is used, the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system(s) shall be monitored on a daily basis or at intervals no greater than 20% of the design carbon replacement interval. The existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated (ARM 17.8.749 and ARM 17.8.1213).

Q.13. Compliance with III.Q.6 shall be demonstrated by complying with 40 CFR 60 Subpart GGGa for all new components in VOC service installed as a part of the thermal combustor project system (40 CFR 60 Subpart GGGa and ARM 17.8.749).

Q.14. CHS shall monitor compliance with 40 CFR 63 Subpart CC as required by 40 CFR 63 Subpart CC (ARM 17.8.1213).

Recordkeeping

Q.15. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

Q.16. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60.115b and 40 CFR 60.116b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

Q.17. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

Q.18. CHS shall maintain records that CHS used submerged fill and internal floating roofs on the sour water storage tanks to document compliance with Section III.Q.10 (ARM 17.8.1213).

Q.19. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

Q.20. CHS shall maintain records showing monitored concentration levels of the organic compounds in the exhaust vent stream from the carbon adsorption system(s) in accordance with Section III.Q.11 and replaced the existing carbon with fresh carbon immediately when carbon breakthrough had been indicated (ARM 17.8.1213).

Reporting

Q.21. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

Q.22. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of the records required by Section III.Q.18 and III.Q.20.

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ.

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC.

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Kb during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Kb.

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa.

R. EU017 – Flare Systems

Main Refinery Flare (replacement) and Coker Unit Flare

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
R.1, R.10, R.16, R.19, R.22, R.27 R.28, R.29	Main Refinery and Coker Flare Design and Operation	40 CFR 63.670	40 CFR 63.670	On-going	Semiannual
R.2, R.11, R.20, R.28, R.29,	Main Refinery Flare SO_2	162 ppmv H_2S determined hourly on a 3-hour average basis	Monitoring according to NSPS Ja	Ongoing	Semiannually
R.3, R.16, R.20, R.22, R.25 R.28, R.29	Main Refinery Flare	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
R.4, R.20, R.28, R.29	Flare Gas Recovery	At least 3 GARO AB 1500 compressors and amine treatment	NSPS Ja	NSPS Ja	Semiannually and 40 CFR 60 Subpart Ja
R.5, R.12, R.21, R.26, R.28, R.29	Fugitive VOC emissions from new components	LDAR program equivalent to 40 CFR 60 Subpart GGGa for all new components (NSPS VVa standards)	LDAR program equivalent to 40 CFR 60 Subpart GGGa for all new components (NSPS VVa standards)	LDAR program equivalent to 40 CFR 60 Subpart GGGa for all new components (NSPS VVa standards)	Semiannually and 40 CFR 60 Subpart GGGa and VVa
R.6, R.7, R.13, R.14, R.15, R.17, R.18, R.23, R.24, R.28, R.29	Main Refinery Flare SO_2	Minor Flaring Only (150 lbs/3-hr period)	Reporting & Corrective Action per Board Order and April 21, 2008 FIP	As Necessary	At Least Quarterly and as Necessary
R.8, R.13, R.14, R.17, R.28, R.29	Main Refinery Flare	Minimize SO_2 Emissions	Ongoing	As Necessary	At Least Quarterly and as Necessary
R.9, R.11, , R.16, R.20, R.22, R.25, R.28, R.29	Coker Flare	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannual and 40 CFR 60 Subpart Ja

Conditions

R.1. CHS shall comply with all applicable requirements of 40 CFR 63.670 for the Main Refinery Flare and the Coker Flare (ARM 17.8.342 and 40 CFR 63 subpart CC).

R.2. CHS shall not flare in the Main Refinery Flare any gas exceeding 162 ppmv H2S determined hourly on a 3-hour average basis. The combustion of process upset gases, as defined in 40 CFR 60 Subpart Ja, or fuel gas as defined in 40 CFR 60 Subpart Ja that is released to the flare as a result of relief valve leakage or other emergency malfunctions, is exempt from this limit (ARM 17.8.752).

R.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja as applicable to the Main Refinery Flare, including requirements for a flare management plan, root cause analysis program, flow monitoring, and total reduced sulfur or H2S monitoring (ARM 17.8.340 and 40 CFR 60 Subpart Ja). The flare management plan shall specifically discuss the operation and monitoring of the flare water seal and identify the associated backpressure it provides, and discuss maximizing use of the flare gas treatment and recovery system during planned maintenance events on the flare gas recovery system (ARM 17.8.749 and ARM 17.8.752).

R.4. CHS shall install and operate a Flare Gas Treatment and Recovery System which shall include three (3) GARO AB 1500 compressors or equivalent, and amine treatment capacity to ensure treatment of captured vent gases to meet NSPS Ja requirements (ARM 17.8.749, ARM 17.8.752).

R.5. CHS shall implement a Leak Detection and Repair (LDAR) program meeting 40 CFR 60 Subpart GGGa for all new components in VOC service installed as a part of the Replacement Main Refinery Flare project, including components added to recover and treat flare gas from the Zone E flare (Coker flare) system (ARM 17.8.752).

R.6. CHS shall not allow SO_2 emissions from the Main Refinery Flare, unless the emissions are a minor flaring event, or are the result of start-up, shutdown, or a malfunction as defined in ARM 17.8.110. A minor flaring event means a flaring event that emits less than or equal to 150 pounds of SO_2 per 3-hour period (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only").

R.7. Total SO_2 emissions from the Main Refinery Flare shall not exceed 150 pounds per 3-hour period (Federal Implementation Plan for the Billings/Laurel, MT, Sulfur Dioxide Area, April 21, 2008, and ARM 17.8.1212).

R.8. Except for minor flaring events, CHS shall minimize SO_2 emissions from Main Refinery Flare flaring. In addition, when flaring of sulfur bearing gases occurs due to a malfunction, CHS shall take immediate action to correct the malfunction (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only")

R.9. CHS shall comply with 40 CFR 60 Subpart Ja, as applicable to the Coker Flare, including the applicable design, equipment, work practice and operational standards of 40 CFR 60.103a (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Compliance Demonstration

R.10. CHS shall comply with applicable monitoring requirements of 40 CFR 63.671 for the Main Refinery Flare and the Coker Flare (ARM 17.8.1213, ARM 17.8.342 and 40 CFR 63subpart CC).

R.11. CHS shall monitor compliance with the 162 ppmv H_2S flare gas limitation of Section III.R2 in accordance with the monitoring requirements provided in 40 CFR 60 Subpart Ja (ARM 17.8.1213, ARM 17.8.749). CHS shall comply with 40 CFR 60 Subpart Ja, including monitoring the emissions and operations of the Coker and Main Refinery Flare as required

by 40 CFR 60 Subpart Ja, and all applicable monitoring, recordkeeping, and reporting requirements (ARM 17.8.1213, ARM 17.8.340 and 40 CFR 60 Subpart Ja).

R.12. As a compliance monitoring mechanism for Section III.R.5, CHS shall utilize the monitoring and recordkeeping requirements outlined in 40 CFR 60 Subpart VVa as required by 40 CFR 60 Subpart GGGa except where specifically exempted in 40 CFR 60 Subpart GGGa (ARM 17.8.1213 and ARM 17.8.749).

R.13. For purposes of determining whether a flaring event greater than 150 pounds of SO_2 per 3-hour period has occurred, CHS shall maintain records of all activities, other than de minimis activities, that result in SO_2 emissions from the flare (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only").

R.14. Compliance with the Main Refinery flare emission limit established by the April 21, 2008 FIP shall be determined by measuring the total sulfur concentration and volumetric flow rate of the gas stream to the flare (corrected to one (1) atmosphere pressure and 68 degrees F and using the methods contained in the flare monitoring plan required by 52.1392(h)(5). The volumetric flow rate of the gas stream to the flare shall be determined in accordance with the requirements of 52.1392(h)(2) and the total sulfur concentration of the gas stream to the flare shall be determined in accordance with 52.1392(h)(3) (73 FR 21417-21465, April 21, 2008 (April 21, 2008 FIP)) and ARM 17.8.1213).

R.15. For startup, shutdown and malfunction events at the Main Refinery flare that are in excess of the 150 lbs/3-hour emission limit, CHS shall follow the Affirmative Defense Provisions contained in the April 21, 2008, FIP for civil penalty relief (April 21, 2008 FIP and ARM 17.8.1213).

Recordkeeping

R.16. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

R.17. CHS shall maintain a record of all flaring events. Each entry shall include the date; time; duration; an engineering estimate of the 3-hour emissions; the measured flow rate to the flare, if available; a description of the source and estimated equivalent sulfur content of the gases directed to the flare; a reason for the flaring event; a description of the immediate actions taken to correct the situation; and the operator's initials (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only").

R.18. CHS shall maintain records for the Main Refinery Flare as required by the April 21, 2008, FIP to demonstrate compliance with the FIP's recordkeeping requirements (April 21, 2008 and ARM 17.8.1212).

R.19. CHS shall comply with all recordkeeping requirements of 40 CFR 63 subpart CC for the refinery flares (ARM 17.8.342 and 40 CFR 63 subpart CC, ARM 17.8.1212).

R.20. CHS shall comply with the applicable recordkeeping requirements of 40 CFR 60 Subpart Ja as applicable to the Coker and Main Refinery Flare (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

R.21. CHS shall comply with the applicable recordkeeping requirements of 40 CFR 60 Subpart GGGa, including references within this rule to 40 CFR 63 Subpart VVa requirements (ARM 17.8.1212, ARM 17.8.340, and 40 CFR 60 Subpart GGGa).

Reporting

R.22. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

R.23. For flaring events in excess of 150 lbs/3-hr period, CHS shall comply with the reporting requirements identified in Section (3)(A)(5) of Exhibit A-1 of the Stipulation (Board Order signed on June 12, 1998, and subsequent revisions of March 17, 2000; this requirement is "State Only").

R.24. CHS shall submit quarterly FIP reports as required by the April 21, 2008, FIP to EPA within 30 days of the end of each quarter. The quarterly reports shall contain the information required by the FIP and be certified for accuracy in writing by a responsible CHS official. The quarterly report shall consist of both a comprehensive electronic-magnetic report and a written hard copy data summary report (April 21, 2008 - FIP and ARM 17.8.1212).

R.25. CHS shall comply with the applicable reporting requirements of 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

R.26. CHS shall submit reports to DEQ as outlined in the 40 CFR 63 Subpart VVa reporting requirements incorporated by reference into 40 CFR 60 Subpart GGGa (ARM 17.8.749).

R.27. CHS shall comply with the reporting requirements in 40 CFR 63 subpart CC for the refinery flares (ARM 17.8.342, 40 CFR 63 subpart CC and ARM 17.8.1212).

R.28. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

R.29. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

c. A summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

d. A summary of compliance with Stipulation limits and dates that reports were submitted as required by Section III.R.18

e. A summary of compliance with the requirements of 40 CFR 63 subpart CC.

f. A summary of any changes made to compressor make, model, or capacity, amine treatment changes resulting in a reduction in amine treatment capacity, or statement that no changes were made.

g. A summary of any prompt deviation reports filed.

h. A summary of the dates that the required quarterly (FIP - April 2008) reports were submitted.

S. EU018 – RCRA Units

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
S.1, S.2, S.3, S.4, S.5, S.6	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually

Conditions

S.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)).

Compliance Demonstration

S.2. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.S.1 shall be determined using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

Recordkeeping

S.3. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

Reporting

S.4. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

S.5. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

S.6. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to DEQ and noting if the test indicated compliance or noncompliance with associated limits (ARM 17.8.1212).

T. EU019 – Cooling Towers

Cooling Tower #1, #2, #3, #5 and #6(Coker Cooling Tower) and the 40 CFR 63 Subpart CC heat exchange systems associated with each cooling tower.

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
T.1, T.5, T.8, T.11, T.12, T.13	Opacity	40%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section III.A.2
T.2, T.5, T.8, T.11, T.12, T.13	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually and Section III.A.2
T.3, T.6, T.9, T.12, T.13	PM_{10}	PM_{10} no more than 0.002% of circulating water flow	Certify	On-going	Semiannually
T.4, T.7, T.10, T.12, T.13	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannual and 40 CFR 63 Subpart CC

Conditions

T.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(1)).

T.2. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)).

T.3. CHS shall operate and maintain a mist eliminator on the Coker Cooling Tower (Cooling Tower #6) that limits PM_{10} emissions to no more than 0.002% of circulating water flow (ARM 17.8.752).

T.4. CHS shall comply with 40 CFR 63 Subpart CC, as applicable to heat exchange systems. (ARM 17.8.342 and 40 CFR 63 Subpart CC).

Compliance Demonstration

T.5. As required by DEQ and Section III.A.1, compliance with the opacity limitations listed in Section III.T.1 and T.2 shall be determined using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

T.6. Compliance with Section III.T.3 shall be monitored by operating and maintaining the mist eliminator as designed, as demonstrated through recordkeeping (ARM 17.8.1213).

T.7. CHS shall monitor the heat exchange systems as required by 40 CFR 63 Subpart CC, including 40 CFR 63.654 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

Recordkeeping

T.8. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

T.9. CHS shall maintain records that the mist eliminator was designed to limit PM_{10} emissions to no more than 0.002% of circulating water flow in order to document compliance with Section III.T.3 (ARM 17.8.1213).

T.10. CHS shall maintain records as required by 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

Reporting

T.11. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

T.12. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

T.13. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.T.9 and III.T.10

c. A summary of compliance with 40 CFR 63 Subpart CC during the reporting period

U. EU020 – Saturate Gas Concentration Unit – *combined with EU002*

V. EU021 – ULSD Unit (900 Unit) and Hydrogen Plant (1000 Unit)

Reactor Charge Heater (H-901), Fractionator Reboiler (H-902), and Hydrogen Reformer Heater (H-1001), and C-901A/B, C-902A/B - Compressors in the ULSD Unit

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
V.1, V.25, V.42, V.51, V.54, V.55	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually
V.2, V.26, , V.43, V.53, V.54, V.55	ULSD Unit Heaters (H-901 and H-902)	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually and 40 CFR 60 Subpart J
V.3, V.27, , V.44, V.53, V.54, V.55	Hydrogen Reformer Heater (H-1001)	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
V.4, V.29, V.45, V.53, V.54, V.55	ULSD Unit and Hydrogen Plant Piping, Compressors	40 CFR 60 Subpart GGG	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 60 Subpart GGG
V.5, V.28, V.46, V.53, V.54, V.55	ULSD Unit and Hydrogen Plant Process Drains	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
V.6, V.29, V.47, V.53, V.54, V.55	ULSD Unit and Hydrogen Plant Piping and compressors in HAP Service	40 CFR 63 Subpart CC	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	Semiannually and 40 CFR 63 Subpart CC
V.7, V.30, V.48,V.53, V.54, V.55	H-901, H-902, H-1001	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
V.8, V.32, V.49, V.54, V.55	SO_2 Emissions from Reactor Charge Heater (H-901)	1.96 tons/ rolling 12-calendar month total and 0.90 lb/hr	RFG System H_2S CEMS, see Section B	On-going	Quarterly
V.9, V.34, V.35, V.37, V.42, V.51, V.54, V.55	NO_x Emissions from Reactor Charge Heater (H-901)	2.86 tons/ rolling 12-calendar month total and 0.65 lb/hr based on a 365-day rolling average (recalculated daily)	CEMS/Method 7	On-going/Every 3 Years	Quarterly
V.10, V.34, V.35, V.42, V.51, V.54, V.55	CO Emissions from Reactor Charge Heater (H-901)	11.76 tons/rolling 12-calendar month total	Method 10	Every 3 Years	Quarterly
V.11, V.33, V.49, V.54, V.55	VOC Emissions from Reactor Charge Heater (H-901)	0.77 tons/ rolling 12-calendar month total	Emission Calculations	On-going	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
V.12, V.32, V.49, V.54, V.55	SO_2 Emissions from Fractionator Reboiler (H-902)	3.95 tons/ rolling 12-calendar month total and 1.80 lb/hr	RFG System H_2S CEMS, see Section B	On-going	Quarterly
V.13, V.36, V.37, V.42, V.51, V.54, V.55	NO_x Emissions from Fractionator Reboiler (H-902)	5.70 tons/ rolling 12-calendar month total and 1.30 lb/hr based on a 365-day rolling average (recalculated daily)	CEMS	On-going	
V.14, V.34, V.36, V.42, V.51, V.54, V.55	CO Emissions from Reactor Charge Heater (H-902)	11.01 tons/rolling 12-calendar month total	Method 10	Every 3 Years	
V.15, V.33, V.49, V.54, V.55	VOC Emissions from Fractionator Reboiler (H-902)	1.54 tons/ rolling 12-calendar month total	Emission Calculations	On-going	
V.16, V.38, V.49, V.54, V.55	Reformer Heater (H-1001)	ULNBs	Certify	Annual	
V.17, V.31, V.50, V.54, V.55	Reformer Heater (H-1001)	burn all available PSA Tailgas	Recordkeeping	On-going	
V.18, V.39, V.44, V.51, V.54, V.55	H_2S Emissions from Reformer Heater (H-1001)	60 ppmv	RFG System H_2S CEMS, see Section B	On-going	
V.19, V.40, V.41, V.42, V.44, V.51, V.54, V.55	NO_X Emissions from Reformer Heater (H-1001)	40 ppmv/30-day rolling	Method 7/CEMS	Every Three Years/On-going	
V.20, V.21, V.40, V.41, V.42, V.51, V.54, V.55	NO_X Emissions from Reformer Heater (H-1001)	29.4 tons/rolling 12-calendar month total	Method 7/CEMS	Every Three Years/On-going	
	NO_X Emissions from Reformer Heater (H-1001)	7.7 lb/hr based on a rolling 24-hr average	CEMS	On-going	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
V.22, V.23, V.41, V.42, V.51, V.54, V.55	CO Emissions from Reformer Heater (H-1001) CO Emissions from Reformer Heater (H-1001)	16.8 tons/ rolling 12-calendar month total 7.7 lb/hr based on a 24-hour rolling average during startup and shutdown	Method 10	Every Three Years	Quarterly
			CEMS	On-going	
V.24, V.41, V.42, V.51, V.54, V.55	CO, VOC, and PM/PM_{10} Emissions from Reformer Heater (H-1001)	Proper design and Good Combustion	Recordkeeping	On-going	

Conditions

V.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)).

V.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart J – Standards of Performance for Petroleum Refineries. This regulation shall apply to the two ULSD Unit Heaters (H-901 and H-902) for the RFG requirements in Section III.B, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart J).

V.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries. This regulation shall apply to the Reformer heater (H-1001) (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

V.4. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

V.5. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. This regulation shall apply to the ULSD Unit and Hydrogen Plant process drains and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

V.6. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart VV applies to the various pumps, valves, flanges, and other equipment in organic HAP service (ARM 17.8.342 and 40 CFR 63 Subpart CC).

V.7. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

V.8. CHS shall not cause or authorize total SO_2 emissions from the Reactor Charge Heater (H-901) to exceed the limits of 1.96 tons/rolling 12-month total and 0.90 lb/hr (ARM 17.8.752).

V.9. CHS shall not cause or authorize total NO_X emissions from the Reactor Charge Heater (H-901) to exceed the limits of 2.86 tons/rolling 12-calendar month total and 0.65 lb/hr based on a 365-day rolling average (recalculated daily) (ARM 17.8.752).

V.10. CHS shall not cause or authorize total CO emissions from the Reactor Charge Heater (H-901) to exceed the limits of 11.76 tons/rolling 12-calendar month (ARM 17.8.752).

V.11. CHS shall not cause or authorize total VOC emissions from the Reactor Charge Heater (H-901) to exceed the limit of 0.77 tons/rolling 12-calendar month total (ARM 17.8.752).

V.12. CHS shall not cause or authorize total SO_2 emissions from the Fractionator Reboiler (H-902) to exceed the limits of 3.95 tons/rolling 12-calendar month total and 1.80 lb/hr (ARM 17.8.752).

V.13. CHS shall not cause or authorize total NO_X emissions from the Fractionator Reboiler (H-902) to exceed the limits of 5.70 tons/rolling 12-calendar month total and 1.30 lb/hr based on a 365-day rolling average (recalculated daily) (ARM 17.8.752).

V.14. CHS shall not cause or authorize total CO emissions from the Fractionator Reboiler (H-902) to exceed the limits of 11.01 tons/rolling 12-calendar month total (ARM 17.8.752).

V.15. CHS shall not cause or authorize total VOC emissions from the Fractionator Reboiler (H-902) to exceed the limit of 1.54 tons/rolling 12-calendar month total (ARM 17.8.752).

V.16. The H-1001 Reformer Heater shall be equipped with ULNBs (ARM 17.8.752).

V.17. All available 1000 Unit PSA purge gas (sulfur free) shall be fired in the H-1001 Reformer Heater except during periods of startup, shutdown, operational transition, or process upset (ARM 17.8.752).

V.18. CHS shall not burn in the H-1001 Reformer Heater any fuel gas that contains H_2S in excess of 60 ppmv determined daily on a 365-successive calendar day rolling average basis (ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

V.19. CHS shall not cause or authorize NO_X emissions from the Reformer Heater (H-1001) to exceed 40 ppmv (dry basis, corrected to 0 percent excess air) based on a 30-day rolling average (40 CFR 60 Subpart Ja).

V.20. CHS shall not cause or authorize NO_X emissions from the Reformer Heater (H-1001) to exceed 29.4 tons per rolling 12-calendar month total (ARM 17.8.752).

V.21. FCHS shall not cause or authorize NO_X emissions from the Reformer Heater (H-1001) to exceed 7.7 lb/hr based on a rolling 24-hour average (ARM 17.8.752).

V.22. CHS shall not cause or authorize CO emissions from the Reformer Heater (H-1001) to exceed 16.8 tons per rolling 12-calendar month (ARM 17.8.752).

V.23. CHS shall not cause or authorize CO emissions from the Reformer Heater (H-1001) to exceed 7.7 lb/hr during periods of startup and shutdown, based on a 24-hour rolling average (ARM 17.8.752).

V.24. CO, VOC and PM/PM_{10} emissions from the H-1001 Reformer Heater shall be controlled by proper design and good combustion practices (ARM 17.8.752).

Compliance Demonstration

V.25. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.V.1 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

V.26. CHS shall meet all applicable requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart J, Standards of Performance for Petroleum Refineries (ARM 17.8.340 and 40 CFR 60 Subpart J).

V.27. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart Ja, Standards of Performance for Petroleum Refineries. These regulations shall apply to the Reformer Heater (H-1001) and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

V.28. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart QQQ, Standards of Performance for Volatile Organic Compound Emissions from Petroleum Refinery Wastewater Systems. These regulations shall apply to the ULSD Unit and Hydrogen Plant and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

V.29. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart GGG and 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and ARM 17.8.342 and 40 CFR 63 Subpart CC).

V.30. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

V.31. Compliance with Section III.V.17 shall be monitored by recordkeeping of fuel type fired in H-1001 (ARM 17.8.1213).

V.32. CHS shall monitor compliance with the SO_2 limits for the Reactor Charge Heater (H-901) and Fractionator Reboiler (H-902) listed in Sections III.V.8 and III.V.12 through

monitoring the volume and H_2S concentration of refinery fuel gas combusted, as specified in Section III.B (ARM 17.8.1213).

V.33. CHS shall monitor compliance with the VOC limit for the Reactor Charge Heater (H-901) and Fractionator Reboiler (H-902) listed in Sections III.V.11 and III.V.15 through maintaining records of the fuel gas consumed and using an appropriate emissions factor as approved by DEQ (ARM 17.8.1213).

V.34. Compliance with the H-901 and H-902 NO_X emission limits shall be determined using the NO_X CEMS and the volumetric stack flow rate monitor (with appropriate moisture correction, determined from the annual stack test data (RATA)). Compliance with the H-901 and H-902 CO emission limits shall be determined from emissions factors generated from the most recent CO stack test (CO testing, concurrent with NO_X testing) (ARM 17.8.749).

V.35. The Reactor Charge Heater (H-901) shall be tested once every three years, or according to another testing/monitoring schedule as may be approved by the Department, for NO_X and CO, concurrently (using Methods 7 and 10, respectively, in accordance with Section III.A.2 (ARM 17.8.106)), and the results submitted to DEQ in order to monitor compliance with the NO_X and CO emission limits contained in Sections III.V.9 and III.V.10 (ARM 17.8.105 and ARM 17.8.749).

V.36. The Fractionator Heater (H-902) shall be tested once every three years, or according to another testing/monitoring schedule as may be approved by the Department, for NO_X and CO, concurrently (using Methods 7 and 10, respectively, in accordance with Section III.A.2 (ARM 17.8.106)), and the results submitted to DEQ in order to monitor compliance with the NO_X and CO emission limits contained in Section III.V.13 and III.V.14 (ARM 17.8.105 and ARM 17.8.749).

V.37. In addition to stack testing required in Section III.V.35 and III.V.36 above, compliance determinations for the NO_X limit for H-901 and H-902 shall also be based upon monitoring data as required below (ARM 17.8.749):

CHS shall install and operate the following CEMS/CERMS for the Reactor Charge Heater H-901 and the Fractionator Reboiler H-902.

a. NO_X

b. Volumetric flowrate monitor

CEMS/CERMS shall comply with Appendix B of 40 CFR 60, Performance Specifications 2, 3, and 6; and Appendix F of 40 CFR 60. The required volumetric flow rate monitor shall comply with the Billings/Laurel SIP Pollution Control Plan Exhibit A, Attachment 1 Methods A-1 and B-1. These requirements are referenced and considered applicable to these monitors based on ARM 17.8.749.

All CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns, and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a

back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated.

V.38. CHS shall demonstrate compliance with Section III.V.16 by ensuring that the Reformer Heater (H-1001) operates with ULNB technology (ARM 17.8.1213).

V.39. Compliance monitoring for the H_2S limit in Section III.V.18 shall be based upon continuous H_2S concentration monitor data and fuel gas flowmeter data as required in Section III.A.35 (ARM 17.8.1213).

V.40. The Reformer Heater (H-1001) shall be tested once every three years, or according to another testing/monitoring schedule as may be approved by the Department, for NO_X and CO, concurrently, and the results submitted to DEQ in order to demonstrate compliance with the NO_X and CO emission limits contained in Sections III.V.19, III.V.20, III.V.21, III.V.22, III.V.23 (ARM 17.8.105 and ARM 17.8.749).

V.41. CHS shall operate and maintain the following CEMS/CERMS on the H-1001 stack:

a. NO_X/O_2 (40 CFR 60 Subpart Ja)

b. CO (ARM 17.8.1213)

c. Volumetric flow rate monitor

In addition to stack testing requirement listed in III.V.40, compliance with the NO_X and CO emission limitations for H-1001 contained in Sections III.V.19, III.V.20, III.V.21, III.V.22, and III.V.23 shall be determined using data from the CEMS (ARM 17.8.1213 and 40 CFR 60 Subpart Ja).

CEMS/CERMS shall comply with all applicable provisions of 40 CFR 60.5 through 60.13, 40 CFR 60 Subpart Ja, 60.100a-108a, and Appendix B, Performance Specifications 2, 3, 4 or 4A, and Appendix F. The required volumetric flow rate monitor shall comply with the Billings/Laurel SIP Pollution Control Plan Exhibit A, Attachment 1 Methods A-1 and B-1 (ARM 17.8.1213).

All CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, breakdowns, and repairs. In the event the primary CEMS is unable to meet minimum availability requirements, CHS shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated.

Recordkeeping

V.42. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

V.43. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart J (ARM 17.8.340 and 40 CFR 60 Subpart J).

V.44. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

V.45. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGG (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

V.46. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

V.47. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

V.48. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

V.49. CHS shall maintain the records associated with Section III. V.8, V.11, V.12, V.15, and V.16 (ARM 17.8.1212).

V.50. CHS shall maintain records of the fuel type fired in H-1001 (ARM 17.8.1213).

Reporting

V.51. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

V.52. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

V.53. CHS shall comply with applicable reporting requirements of applicable NSPS and MACT standards, including 40 CFR 60 Subpart GGG, 40 CFR 60 Subpart QQQ, 40 CFR 63 Subpart CC, 40 CFR 63 Subpart DDDDD, 40 CFR 60 Subpart J, and 40 CFR 60 Subpart Ja (ARM 17.8.1212).

V.54. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

V.55. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. A summary of the records required by Section III.V.31;

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart J during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart J;

f. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

g. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

h. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

i. A summary of compliance with unit emission limits and conditions of this section and dates that quarterly reports were submitted as required.

W. EU022 – Delayed Coker Unit

Coker Charge Heater (H-7501), Coke Processing Operations, C-7601 Compressor, Coke Drum Steam Vent

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
W.1, W.13, W.26, W.33, W.35, W.36	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
W.2, W.14, W.27, W.35, W.36	Delayed Coker Unit piping	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	Semiannually and 40 CFR 60 Subpart GGG
W.3, W.15, W.28, W.35, W.36	Delayed Coker Unit process drains	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
W.4, W.14, W.29, W.35, W.36	Delayed Coker Unit – Piping in HAP Service and Decoking Operations	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannually and 40 CFR 63 Subpart CC
W.5, W.16, W.30, W.35, W.36	H-7501	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD
W.6, W.20, W.35, W.36	SO_2 Emissions from Coker Charge Heater (H-7501)	6.61 tons/rolling 12-calendar month total and 3.02 lb/hr	RFG System H_2S CEMS, see Section B	On-going	Quarterly
W.7, W.17, W.26, W.33, W.35, W.36	NOx Emissions from Coker Charge Heater (H-7501)	28.2 tons/rolling 12-calendar month total and 6.44 lb/hr	Method 7	Every Three Years	
W.8, W.9, W.17, W.18, W.19, W.26, W.33, W.35, W.36	CO Emissions from Coker Charge Heater (H-7501)	35.2 tons/rolling 12-calendar month total, 8.05 lb/hr, and 400 ppm_{vd} at 3% O_2/30-day rolling average. During startup, shutdown, and spalling – 16.1 lb/hr rolling 24-hour average	Method 10	Every Three Years	
			CEMS	On-going	
W.10, W.21, W.35, W.36	VOC Emissions from Coker Charge Heater (H-7501)	1.41 tons/rolling 12-calendar month total	Emission Calculations, see Section B	On-going	
W.11, W.22, W.31, W.35, W.36	Coke Processing Operations	Handling Requirements	Certify	Semiannually	Semiannually
W.12, W.23, W.24, W.25, W.29, W.32, W.35, W.36	Coke Drum Steam Vent	VOC emissions 18.10 tons/yr (monthly rolling 12-month total)	Equation	Annually	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
		PM_{10} emissions 4.52 tons/yr (monthly rolling 12-month total)	Equation	Annually	
		The vessel shall not be opened to atmosphere until either the pressure or temperature condition is satisfied	Monitor and Calculate	On-going	
					Quarterly

Conditions

W.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit (ARM 17.8.304(2)).

W.2. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart GGG-Equipment Leaks of VOC in Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

W.3. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. This regulation shall apply to the Delayed Coker Unit process drains and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60, Subpart QQQ).

W.4. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart CC, NESHAPs From Petroleum Refineries, including compliance with specific requirements in Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Subpart CC applies to the various pumps, valves, flanges, and other equipment in organic HAP service. CHS shall also comply with the Subpart CC delayed coker unit decoking operation standards (ARM 17.8.342 and 40 CFR 63 Subpart CC).

W.5. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

W.6. CHS shall not cause or authorize total SO_2 emissions from the Coker Charge Heater (H-7501) to exceed the limits of 6.61 tons/rolling 12-month total or 3.02 lb/hr (ARM 17.8.752).

W.7. CHS shall not cause or authorize total NOx emissions from the Coker Charge Heater (H-7501) to exceed the limits of 28.2 tons/rolling 12-month total or 6.44 lb/hr (ARM 17.8.752).

W.8. CHS shall not cause or authorize total CO emissions from the Coker Charge Heater (H-7501) to exceed the limits of 35.2 tons/rolling 12-month total, 8.05 lb/hr, or 400 ppmvd at 3% O_2 on a 30-day rolling average (ARM 17.8.752).

W.9. CHS shall not cause or authorize during periods of startup, shutdown and spalling (a feed heater coil decoking process completed during operation to avoid complete unit shutdown) CO emissions from Coker Charge Heater (H-7501) to exceed 16.1 lb/hr on a 24-hour rolling average (ARM 17.8.752).

W.10. CHS shall not cause or authorize total VOC emissions from the Coker Charge Heater (H-7501) to exceed the limit of 1.41 tons/rolling 12-month total (ARM 17.8.752).

W.11. CHS will meet the following requirements for the coke processing operations:

a. CHS shall store onsite coke in the walled enclosure for coke storage only. Onsite coke storage shall be limited to a volume that is contained within the walled enclosure. Storage of coke outside of the walled enclosure is prohibited (ARM 17.8.752).

b. The coke pile shall not exceed the height of the enclosure walls adjacent to the pile at any time (ARM 17.8.752).

c. CHS shall not cause or authorize emissions to be discharged into the atmosphere from coke handling without taking reasonable precautions to control emissions of airborne particulate matter. CHS shall wet the coke as needed to comply with the reasonable precautions standard (ARM 17.8.308 and ARM 17.8.752).

d. CHS shall install and maintain enclosures surrounding the coke conveyors, coke transfer drop points (not including the location at which coke is transferred from the front-end loader to the initial coke sizing screen), and crusher (ARM 17.8.752).

e. CHS shall install and maintain a telescoping loading spout for loading coke into railcars and trucks (ARM 17.8.752).

f. Alternate Coke Handling Method: In the event the conveyors are inoperable (as described in Section III.W.9.d and e) due to either planned or unplanned maintenance activities, CHS may transport uncrushed coke only from the coke storage area to the railcar using a front-end loader. The requirements specified in Section III.W.11a-c still apply. The alternate coke handling method is limited to 24 batches per year (ARM 17.8.752).

g. CHS shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter. CHS shall treat unpaved coke trucking transport roads with water and/or chemical dust suppressant as necessary to control emissions while coke is being transported from the refinery (ARM 17.8.308 and ARM 17.8.752).

h. CHS shall cover the coke during truck transport of the coke from the refinery (ARM 17.8.752).

i. CHS shall load no more than 175,200 tons of coke into trucks per year, as determined monthly on a rolling 12-month period (ARM 17.8.749).

j. CHS shall clean the paved sections of coke transport roads, as necessary, for reasonable precautions specific to truck hauling of coke on refinery property (ARM 17.8.308 and ARM 17.8.752).

W.12. CHS will meet the following requirements for the Coke Drum Steam Vent:

a. VOC emissions from the Coke Drum Steam Vent shall not exceed 18.10 tons/yr as determined on a monthly rolling 12-month total (ARM 17.8.749).

b. PM_{10} emissions from the Coke Drum Steam Vent shall not exceed 4.52 tons/yr as determined on a monthly rolling 12-month total (ARM 17.8.749).

c. CHS shall de-pressure each coke drum to a closed blowdown system until either: (ARM 17.8.342, ARM 178.749 and 40 CFR 63 subpart CC)

i. The coke drum average pressure is 2 psig or less, determined on a rolling 60-event average or
ii. The coke drum average vessel temperature of 220 degrees Fahrenheit or less determined on a rolling 60-event average.

Compliance Demonstration

W.13. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.W.1 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

W.14. CHS shall institute a monitoring and maintenance program in accordance with 40 CFR 60 Subpart GGG and 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart GGG; and ARM 17.8.342 and 40 CFR 63 Subpart CC).

W.15. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart QQQ, Standards of Performance for Volatile Organic Compound Emissions from Petroleum Refinery Wastewater Systems. These regulations shall apply to the Coker Charge Heater and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

W.16. CHS shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by Subpart DDDDD including maintaining on-site an annual report containing the information required in 40 CFR 63.7540 (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

W.17. The Coker Charge Heater (H-7501) shall be tested once every three years, or according to another testing/monitoring schedule as may be approved by the Department, for NO_X and CO, concurrently (using Methods 7 and 10, respectively, in accordance with Section III.A.2 (ARM 17.8.106)), and the results submitted to DEQ in order to monitor compliance with the NO_X and CO emission limits contained in Section III.W.7 and III.W.8 (ARM 17.8.105 and ARM 17.8.749).

W.18. CHS shall operate and maintain the following CEMS/CERMS on the H-7501 stack:

a. O_2 (ARM 17.8.1213)

b. CO (ARM 17.8.1213)

In addition to stack testing required under Section III.W.17, compliance with the CO emission limitations contained in Section III.W.9 shall be determined using data from the CEMS.

W.19. CEMS/CERMS required by this permit shall comply with all applicable provisions of 40 CFR 60.5 through 60.13, Subparts J, 60.100-108, and Appendix B, Performance Specifications 2, 3, 4 or 4A, and Appendix F (ARM 17.8.1213).

W.20. CHS shall monitor compliance with the SO_2 limits for the Coker Charge Heater listed in Section III.W.6 through monitoring the volume and H_2S concentration of refinery fuel gas combusted, as specified in Section III.B (ARM 17.8.1213).

W.21. CHS shall monitor compliance with the VOC limit for the Coker Charge Heater listed in Section III.W.10 through maintaining records of the fuel gas consumed and using the emission factor as specified in Section III.B (ARM 17.8.1213).

W.22. Compliance with Section III.W.11 shall be monitored by following the requirements for the coke processing operations (ARM 17.8.749).

W.23. CHS shall install, operate, calibrate and maintain a monitoring system to determine the coke drum vessel pressure (ARM 17.8.749, ARM 17.8.342 and 40 CFR 63 subpart CC).

W.24. Using the following equations, CHS shall determine the VOC and PM_{10} emissions from the Coke Drum Steam Vent each time a steam vent is opened to the atmosphere (cycle). CHS shall sum emissions from all cycles on a rolling 12-month basis to determine compliance with the emissions limits (ARM 17.8.749).

$$PM_{10}, lb/cycle = \left(\frac{15}{2} \Big/ \frac{65}{4}\right)\left(-1.5041P^2 + 17.603P + 3.7022\right)$$

$$VOC, lb/cycle = \left(\frac{15}{2} \Big/ \frac{65}{4}\right)\left(2.6378P^3 - 33.487P^2 + 144.5P - 37.706\right)$$

P = 5-minute rolling average coke drum pressure (psig) as determined just prior to initiating steps to isolate the coke drum prior to venting, draining or deheading.

W.25. Compliance with the limit in condition W.13.c shall be determined based on the 5-minute rolling average pressure or temperature calculated as described in 40 CFR 63 subpart CC (ARM 17.8.749, ARM 17.8.342 and 40 CFR 63 subpart CC).

Recordkeeping

W.26. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

W.27. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart GGG (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

W.28. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

W.29. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63, Subpart CC).

W.30. CHS shall maintain records as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart DDDDD, and ARM 17.8.1212).

W.31. CHS shall maintain, under CHS's control, records of compliance with the coke processing requirements, to monitor compliance with Section III.W.11 (ARM 17.8.1213).

W.32. CHS shall maintain records of compliance with the coke drum steam vent requirements as required in Section III.W.23 and III.W.24 (ARM 17.8.1213).

Reporting

W.33. Any compliance source test reports must be submitted in accordance with Section III.A.2 (ARM 17.8.106 and ARM 17.8.1212).

W.34. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

W.35. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

W.36. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. Dates that quarterly reports were submitted as required by Section III.W.34

c. Records required by Section III.W.31 and III.W.32;

d. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

e. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGG;

f. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

g. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

h. A summary of compliance with unit emission limits and conditions of this section and dates that quarterly reports were submitted as required by Section IIIW.34.

X. EU023 – Zone E SRU/TGTU/TGI

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
X.1, X.9, X.19, X.23, X.24	Zone E SRU/TGTU/ TGI	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually
X.2, X.10, X.20, X.23, X.24	Zone E SRU/TGTU/ TGI	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually and 40 CFR 63 Subpart UUU
X.3, X.11, X.14, X.15, X.18, X.21, X.23, X.24	SO_2	49.4 Tons per Rolling 12-Calendar Month Total, and 14.1 lb/hr	CEMS	On-going	Quarterly
			Method 6/6c	Every Three Years	
X.4, X.11, X.14, X.15, X.18, X.21, X.23, X.24	SO_2	250 ppm per rolling 12-hour corrected to 0% O_2	CEMS	On-going	
X.5, X.11, X.14, X.15, X.18, X.21, X.23, X.24	SO_2	200 ppm on a rolling 12-month average corrected to 0% O2 on a dry basis from the TGTU on the Coker Unit	CEMS	On-going	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
X.6, X.12, X.18, X.21, , X.23, X.24	NO_x	4.62 Tons per Rolling 12-Calendar Month Total, and 1.05 lb/hr	Method 7	Every Six Years	
X.7, X.16, X.18, X.21, X.23, X.24	PM	0.10 gr/dscf corrected to 12% CO_2	Method 5	As required by DEQ and Section III.A.1	Semiannualy
X.8, X.17, X.18, X.21, X.23, X.24	Opacity	10%	Method 9	As required by DEQ and Section III.A.1	

Conditions

X.1. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart J—Standards of Performance for Petroleum Refineries. These regulations shall apply to the Zone E SRU Incinerator Stack and any other equipment, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart J).

X.2. CHS shall comply with all applicable requirements of 40 CFR 63 Subpart UUU NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, (Refinery MACT II). These regulations shall apply to the Zone E SRU /TGTU/TGI Stack and any other equipment, as appropriate (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

X.3. SO_2 emissions from the Zone E SRU/TGTU/TGI shall not exceed 49.4 tons per rolling 12-calendar month total, and 14.1 lb/hr (ARM 17.8.752).

X.4. SO_2 emissions from the Zone E SRU/TGTU/TGI shall not exceed 250 ppm, rolling 12-hour average corrected to 0% O_2 on a dry basis (ARM 17.8.752).

X.5. CHS shall operate and maintain the TGTU on the Coker Unit to limit SO_2 emissions from the Coker Unit stack to no more than 200 ppm on a rolling 12-month average corrected to 0% O_2 on a dry basis (ARM 17.8.752).

X.6. NO_x emissions from the Zone E SRU/TGTU/TGI shall not exceed 4.62 tons per rolling 12-calendar month total, and 1.05 lb/hr (ARM 17.8.749).

X.7. CHS shall not cause or authorize to be discharged into the atmosphere from the Zone E SRU/TGTU/TGI any PM emissions in excess of 0.10 gr/dscf corrected to 12% CO_2 (ARM 17.8.752).

X.8. CHS shall not cause or authorize to be discharged into the atmosphere from the Zone E SRU/TGTU/TGI any visible emissions that exhibit an opacity of 10% or greater (ARM 17.8.752).

Compliance Demonstration

X.9. CHS shall meet the requirements of all testing and procedures of ARM 17.8.340, which references 40 CFR 60 Subpart - Standards of Performance for Petroleum Refineries (ARM 17.8.340 and 40 CFR 60 Subpart J).

X.10. CHS shall meet the requirements of all testing and procedures of ARM 17.8.342, which references 40 CFR 63 Subpart UUU NESHAPs for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units (Refinery MACT II) (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

X.11. The Zone E SRU/TGTU/TGI stack shall be tested once every three years for SO_2, or according to another testing/monitoring schedule as may be approved by DEQ (using Methods 6/6c, in accordance with ARM 17.8.106), and the results submitted to DEQ in order to monitor compliance with the SO_2 emission limits contained in Section III.X.3, III.X.4, III.X.5 (ARM 17.8.105 and ARM 17.8.749).

X.12. The Zone E SRU/TGTU/TGI stack shall be tested on a 6-year basis for NO_x, or according to another testing/monitoring schedule as may be approved by DEQ (using Method 7, in accordance with ARM 17.8.106), and the results submitted to DEQ in order to monitor compliance with the NO_x emission limits contained in Section III.X.6 (ARM 17.8.105 and ARM 17.8.749).

X.13. CHS shall monitor compliance with Section III.X.7 by conducting a Method 5 stack test, as required by DEQ (ARM 17.8.1213).

X.14. CHS shall operate and maintain the following CEMS/CERMS on the Zone E SRU/TGTU/TGI stack:

a. SO_2 (40 CFR 60 Subpart J)

b. O_2 (40 CFR 60 Subpart J)

c. Volumetric Flow Rate (ARM 17.8.749)

In addition to stack testing required under Section III.X.11, compliance with the SO_2, emission limitations contained in Sections III.X.3, III.X.4, and III.X.5 shall be determined using data from the CEMS/CERMS.

X.15. CEMS/CERMS required by this permit shall comply with all applicable provisions of 40 CFR 60.5 through 60.13, Subparts J, 60.100-108, and Appendix B, Performance Specifications 2, 3, 4 or 4A, and Appendix F. The volumetric flow rate monitor shall comply with the Billings/Laurel SIP Pollution Control Plan Exhibit A, Attachment 1 Methods A-1 and B-1 (ARM 17.8.1213).

X.16. As required by DEQ and Section III.A.1, compliance with the PM emissions limitation of Section III.X.7 shall be monitored using EPA reference Method 5 testing, or another testing Method as approved in writing by DEQ (ARM 17.8.1213).

X.17. As required by DEQ and Section III.A.1, compliance with the opacity limitation listed in Section III.X.8 shall be monitored using EPA reference Method 9 testing by a qualified observer (ARM 17.8.1213).

Recordkeeping

X.18. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

X.19. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart J (ARM 17.8.340 and 40 CFR 60 Subpart J).

X.20. CHS shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

Reporting

X.21. All source test reports shall be submitted to DEQ in accordance with Section III.A.2 (ARM 17.8.106).

X.22. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

X.23. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

X.24. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of the records required by Section III.X.22;

c. Summary of compliance with 40 CFR 60 Subpart J during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart J;

d. Summary of compliance with 40 CFR 63 Subpart UUU during the reporting period. This reporting requirement does not require the permittee to submit any report or

compliance status determination earlier than is required by 40 CFR 63 Subpart UUU; and

e. Summary of compliance with unit emission limits and conditions of this section and dates that quarterly reports were submitted as required by Section III.X.22

Y. EU024 – Ammonia Combustor

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
Y.1, Y.8, Y.17, Y.18, Y.20, Y.21	Opacity	No visible emissions except for up to 5 minutes during consecutive 2-hr periods	Method 9	As required by DEQ and Section III.A.1	As required by the Protocol
Y.2, Y.3, Y.9, Y.15, Y.17, Y.18, Y.19, Y.20, Y.21	NO_x	Less than 61 ppmv at 3 percent O_2 365-day rolling average 1.85 lb/hr rolling 24-hr average	CEMS	On-going	Semiannually
Y.4, Y.10, Y.17, Y.18, , Y.20, Y.21	Ammonia	10 ppmv at 3% O_2	Source Test	Every Four Years	Semiannually
Y.5, Y.6, Z.7, Y.11, Y.12, Y.13, Y.14, Y.16, Y.17, Y.18, Y.19,Y.20, Y.21	SO_2	1) 20 ppmv on a dry basis, corrected to 0% excess air, determined hourly on a 3-hour rolling average basis 2) SO_2 in excess of 8 ppmv on a dry basis, corrected to 0% excess air, determined daily on a 365-successive calendar day rolling average basis 3) SO_2 in excess of 0.80 lb/hr	CEMS	40 CFR 60 Subpart Ja	Semiannually

Conditions

Y.1. The Ammonia Combustor shall be operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours as determined by visual survey (ARM 17.8.752).

Y.2. CHS shall install and operate Selective Catalytic Reduction technology on the Ammonia Combustor to achieve NO_x emissions of no more than 61 ppmv at 3 percent O_2 on a 365-day rolling average basis, as measured by NO_x CEMS and calculated on each calendar day basis, applicable at all times, including startup and shutdown (ARM 17.8.752).

Y.3. CHS shall not emit more than 1.85 lb/hr of NO_x on a rolling 24-hr average basis from the Ammonia Combustor, as measured by NO_x CEMS and stack flowrate monitor with appropriate moisture correction defined by the initial source test. This limit shall not apply during startup and shutdown of the unit when the SCR is not at its design operating temperature (ARM 17.8.749).

Y.4. Ammonia emissions from the Ammonia Combustor shall not exceed 10 ppmv at 3% O_2 (ARM 17.8.752).

Y.5. CHS shall not emit from the Ammonia Combustor SO_2 in excess of the following, as measured by SO_2 CEMS (ARM 17.8.752):

a. 20 ppmv on a dry basis, corrected to 0% excess air, determined hourly on a 3-hour rolling average basis, and;

b. SO_2 in excess of 8 ppmv on a dry basis, corrected to 0% excess air, determined daily on a 365-successive calendar day rolling average basis.

Y.6. CHS shall not emit from the Ammonia Combustor SO_2 in excess of 0.80 lb/hr (ARM 17.8.749).

Y.7. CHS shall comply with all applicable requirements of 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Compliance Demonstration

Y.8. CHS shall perform a Method 9 test using a qualified observer as required by DEQ and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Y.9. CHS shall utilize a NOx CEMs and stack flow rate monitor to provide the data necessary to demonstrate compliance with Section III.Y.2 and Y.3 (ARM 17.8.1213).

Y.10. CHS shall perform source testing for NH_3 utilizing methodology as agreed in writing by CHS and the Department, on an every four year basis to satisfy Section III.Y.4 (ARM 17.8.1213).

Y.11. CHS shall monitor compliance with the SO_2 emissions limitations of Section III.Y.5 according to 40 CFR 60.8 and 40 CFR 60.104a, and 40 CFR 60.107a, and as otherwise described in 40 CFR 60 Subpart Ja. CHS shall comply with all applicable monitoring and recordkeeping requirements of 40 CFR 60 Subpart Ja (ARM 17.8.1213, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

Y.12. CHS shall monitor compliance with Section III.Y.6 with emissions data from the SO_2 CEMS and stack flowrate monitor required to also satisfy Section III.Y.5 (ARM 17.8.1213).

Y.13. CHS shall monitor compliance with 40 CFR 60 Subpart Ja as required by 40 CFR 60 Subpart Ja (ARM 17.8.1213).

Recordkeeping

Y.14. All test records must be maintained on site and submitted to DEQ in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

Y.15. CHS shall maintain on site the records from the NOx, SO_2 CEMS and stack flowrate monitor (ARM 17.8.1212).

Y.16. CHS shall comply with all applicable recordkeeping and notification requirements contained in 40 CFR 60 Subpart Ja (ARM 17.8.342 and 40 CFR Part 60, Subpart Ja).

Y.17. CHS shall perform all source test recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

Reporting

Y.18. All source test reports shall be submitted to DEQ in accordance with Section III.A.2 (ARM 17.8.106).

Y.19. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit.

Y.20. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

Y.21. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with unit emission limits and conditions and dates that quarterly reports were submitted as required by Section III.Y.19;

c. Summary of compliance with 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja.

Z. EU025 – Hydrogen Plant #3

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
Z.1, Z.19, Z.25, Z.30, Z.31,Z.35, Z.36	Opacity	20 Percent	Method 9	As required by DEQ and Section III.A.1	Semiannually
Z.2, Z.20, Z.25, Z.30, Z.31, Z.35, Z.36	Hydrogen Reformer Heater	1) Low NOx Burners 2) SCR 2) <10 ppm Ammonia Slip 3) Document Catalyst SCR Operating Temperatures	Source Test	Initial	Semiannually
Z.3, Z.4, Z.20, Z.21, Z.22, Z.25, Z.26, Z.30, Z.31, Z.35, Z.36	NO_x	1) 25.16 tons/rolling -12-calendar month total 2) 5.62 lb/hr 365-day rolling average including startup and shutdown 3) 22.5 lb/hr during periods of startup rolling 24-hr average 4) Tested Concurrently with CO	Method 7 CEMS	Every Three Years/ On-going.	Semiannually
Z.5, Z.20, Z.21, Z.22, Z.25, Z.26, Z.31,Z.35, Z.36	SO_2	1) 9.76 tons/12-month rolling total 2) 6.0 lb/hr based on a 3-hr rolling average	Fuel Consumption Recordkeeping and Emission Calculations	On-going	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
Z.6, Z.20, Z.21, Z.22, Z.31,Z.35, Z.36	H_2S	1) Not combust in excess of 162 ppmvd H2S determined hourly on a 3-hr rolling average. 2) Not combust in excess of 60 ppmvd H2S on a 365-successive calendar day rolling average basis	RFG System CEMS See Section B. Fuel Consumption Recordkeeping	On-going	Semiannually
Z.7, Z.20, Z.21, Z.22, Z.25, Z.26, Z.30, Z.31,Z.35, Z.36	CO	1) 91.08 tons per rolling 12-calendar month total 2) 20.8 lb/hr 365-day rolling average 3) 41.6 lb/hr during periods of startup on a rolling 36-hr average 4) Tested Concurrently with NOx	Method 10 CEMS	Every Three Years/ On-going	Semiannually
Z.8, Z.20, Z.25, Z.26, Z.30, Z.31, Z.35, Z.36	VOC	1.26 lb/hr	Method 18 and Method 25 or another Method as agreed in writing	As Required by the Department	Semiannually
Z.9, Z.20, Z.25, Z.26, Z.30, Z.31, Z.35, Z.36	$PM_{10}/PM_{2.5}$	4.2 lb/hr	Method 5 or Method 201 and Method 202	Once every 6-years	Semiannually
Z.10, Z.11, Z.20, Z.26, Z.31,Z.35, Z.36	CO_2e	1) 879,697 tons per year rolling 12-month calendar total 2) Firing only PSA tailgas, RFG or pipeline quality natural gas 3) Preventive tune-ups per 40 CFR 63 Subpart DDDDD	RFG System CEMS See Section B. Fuel Consumption Recordkeeping. 40 CFR part 98 Subpart P	On-going	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
Z.12, Z.20, Z.25, Z.35, Z.36	CO, VOC and PM/PM10	Proper design and good combustion practices	Recordkeeping	On-going	Semiannually
Z.13, Z.20, Z.21, Z.22, Z.25, Z.31, Z.35, Z.36	CEMS	Operate CEMS/CERMs for the following: NOx, O_2, CO, and flow rate	Recordkeeping	On-going	Semiannually
Z.14, Z.21, Z.28, Z.33, Z.35, Z.36	Hydrogen Reformer Unit Heater	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
Z.15, Z.23, Z.27, Z.28, Z.32, Z.35, Z.36	Hydrogen Plant #3 and Compressors in the Hydrogen Plant #3	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannually and 40 CFR 60 Subpart GGGa
Z.16, Z.28, Z.33, Z.35, Z.36	Hydrogen Plant #3	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
Z.17, Z.24, Z.29, Z.34, Z.35, Z.36	Hydrogen Plant #3	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannually and 40 CFR 63 Subpart CC
Z.24, Z.29, Z.34, Z.35, Z.36	Hydrogen Plant #3	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD

Conditions

Z.1. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the Hydrogen Reformer Unit Heater (067HT0001) an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 (2)) and ARM 17.8.1212).

Z.2. The Hydrogen Reformer Heater shall be equipped with low NO_x burners and selective catalytic reduction (SCR); and ammonia slip shall not exceed 10 ppm average ammonia demonstrated for performance tests (ARM 17.8.1212 and 17.8.752).

Z.3. CHS shall maintain documentation of the necessary catalyst operating temperature on-site for each type of catalyst used in the SCR to satisfy the condition in Section III.Z.4(c) (ARM 17.8.1212).

Z.4. NO_x emissions from the Hydrogen Reformer Heater shall not exceed:

a. 25.16 tons/rolling 12-calendar month total (ARM 17.8.1212);

b. 5.62 lb/hr 365-day rolling average including startup and shutdown based on NO_x CEMS (ARM 17.8.1212 and 17.8.752);

c. 22.5 lb/hr during periods of startup, on an hourly rolling 24-hour average basis. Startup begins when fuel is first fired, and startup ends when the SCR inlet reaches its required temperature and ammonia injection has been established (ARM 17.8.1212 and 17.8.752).

Z.5. SO_2 emissions from the Hydrogen Reformer Heater shall not exceed (ARM 17.8.1212 and 17.8.752):

a. 9.76 tons/12-month rolling total;
b. 6.0 lb/hr based on a 3-hr rolling average.

Z.6. CHS shall not burn any fuel gas in the Hydrogen Reformer Heater that contains H_2S in excess of 162 ppmvd determined hourly on a 3-hour rolling average basis and H_2S in excess of 60 ppmvd determined daily on a 365-successive calendar day rolling average basis (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart Ja).

Z.7. CO emissions from the Hydrogen Reformer Heater shall not exceed:

a. 91.08 tons/rolling 12-calendar month total (ARM 17.8.1212);

b. 20.8 lb/hr 365-day rolling average based on CO CEMS (ARM 17.8.1212 and 17.8.752);

c. 41.6 lb/hr during periods of startup, on an hourly rolling 36-hr average basis (ARM 17.8.1212 and 17.8.752).

Z.8. VOC emissions from the Hydrogen Reformer Heater shall not exceed 1.26 lb/hr based on EPA Reference Methods 18 and 25, or another methodology as agreed in writing between CHS and DEQ (ARM 17.8.1212 and ARM 17.8.752).

Z.9. $PM_{10}/PM_{2.5}$ emissions from the Hydrogen Reformer Heater shall not exceed 4.2 lb/hr based on EPA Reference Methods 5 or 201 and 202 (ARM 17.8.1212 and 17.8.752).

Z.10. CHS shall not exceed 879,697 tons per year total $CO2_e$ (rolling 12-month total) from the Hydrogen Reformer Heater and the FCCU regenerator (Section III.I) (ARM 17.8.1212 and 17.8.752).

Z.11. CO_2e emissions from the Hydrogen Reformer Heater shall be minimized by:

a. Firing only PSA tailgas, RFG or pipeline quality natural gas (ARM 17.8.1212 and 17.8.752);

b. Preventive tune-ups per 40 CFR 63 Subpart DDDDD (ARM 17.8.1212, ARM 17.8.752 and 40 CFR 63 Subpart DDDDD).

Z.12. CO, VOC and PM/PM_{10} emissions on the Hydrogen Reformer Heater shall be controlled by proper design and good combustion practices (ARM 17.8.1212 and 17.8.752).

Z.13. CHS shall install, operate, calibrate, and maintain the following CEMS/CERMS for the Hydrogen Reformer Heater:

a. NO_x (40 CFR 60, Subpart Ja)

b. O_2 (40 CFR 60, Subpart Ja)

c. H_2S on fuel gas systems (not individual heaters). This is not required if either natural gas or PSA tailgas are used as these fuels are exempt from Subpart Ja due to their characteristics (40 CFR 60, Subpart Ja).

d. Stack Flow Rate (ARM 17.8.1212)
e. CO (ARM 17.8.1212)

Z.14. CHS shall comply with 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries for the Hydrogen Reformer Unit Heater (ARM 17.8.340, 17.8.1212 and 40 CFR 60 subpart Ja).

Z.15. 40 CFR 60 Subpart GGGa – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, applies to the Hydrogen Plant #3. The compressors in the Hydrogen Plant #3 are subject to Subpart GGGa when processing Refinery Fuel Gas (RFG) or other process gases. When the unit feed is natural gas, the compressors are not considered to be in VOC service (ARM 17.8.340, 17.8.1212 and 40 CFR 60 subpart GGGa).

Z.16. 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems applies to the Hydrogen Plant #3 (ARM 17.8.340, 17.8.1212 and 40 CFR 60 Subpart QQQ).

Z.17. 40 CFR 63 Subpart CC - NESHAP from Petroleum Refineries shall apply to applicable components in Hydrogen Plant #3 with the potential for greater than five percent weight HAP (ARM 17.8.342, 17.8.1212 and 40 CFR 63 Subpart CC).

Z.18. 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters apples to the Hydrogen Reformer Heater (ARM 17.8.342, 17.8.1212 and 40 CFR 63 Subpart DDDDD).

Compliance Demonstration

Z.19. CHS shall perform a Method 9 test using a qualified observer as required by DEQ and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Z.20. CHS shall perform source testing and/or demonstrate compliance for the Hydrogen Reformer Heater for the pollutants listed below with the EPA reference methods and methodologies at the frequencies indicated:

a. NO_x – Every three years from the date of the last source test using EPA Method 7 in conjunction with annual CEMS/CERMS RATA performance testing in accordance with Appendix F (40 CFR Part 60) requirements, or according to another testing/ monitoring schedule as may be approved by the Department, for NOx and CO (EPA Methods 7 and 10), concurrently, and the results submitted to DEQ in order to demonstrate compliance with the NOx and CO emission limits (ARM 17.8.105 and ARM 17.8.1212, 40 CFR 60, Subpart Ja).

b. CO – Every three years from the date of the last source test using EPA Method 10 in conjunction with the annual CEMS/CERMS RATA performance testing in accordance with Appendix F (40 CFR Part 60 and ARM 17.8.1212).

c. VOC – EPA Method 18 and 25, or another method as agreed in writing between CHS and the Department. As requested by DEQ (ARM 7.8.1212).

d. $PM_{10}/PM_{2.5}$ – EPA Method 5 or 201 and 202. Once every six years (ARM 7.8.1212).

e. Ammonia Slip – The Hydrogen Reformer Heater was initially tested within 180 days of Hydrogen Reformer Heater startup, and then must be tested with two years after the initial test date, and thereafter, only as requested by DEQ to demonstrate compliance with the 10 ppm limit. The ammonia testing protocol shall be determined using a methodology as agreed in writing between CHS and DEQ (ARM 17.8.1212 and 17.8.752).

f. CO_2e Emissions – For the hydrogen reformer heater compliance shall be demonstrated following the calculation procedures of 40 CFR part 98 subpart P. For the FCCU regenerator, compliance shall be demonstrated following the calculation procedures of 40 CFR part 98 subpart Y (ARM 17.8.1212 and ARM 17.8.752).

g. SO_2 – Compliance is demonstrated using an appropriate emission factor applied to fuel consumption when firing natural gas or using an H2S CEM when RFG is being fired. When firing PSA tail gas, no sulfur is present and no calculation is required (ARM 17.8.1212).

Z.21. CEMS and CERMS required by this permit shall comply with all applicable provisions of 40 CFR Parts 60.5 through 60.13, Subparts Ja, 60.100a-60.108a, and Appendix B, Performance Specifications 2, 3, 6, and Appendix F; and 40 CFR 52, Appendix E, for certifying Volumetric Flow Rate Monitors (ARM 17.8.1212).

Z.22. CEMS are to be in operation at all times when the emission units are operating, except for quality assurance and control checks, and breakdowns and repairs of CEMS related equipment. In the event the primary CEMS is unable to meet minimum availability requirements, the recipient shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be demonstrated (ARM 17.8.1212).

Z.23. CHS shall demonstrate compliance with 40 CFR 60 Subpart GGGa and Subpart QQQ (40 CFR 60 Subpart GGGa, Subpart QQQ and ARM 17.8.1212).

Z.24. CHS shall demonstrate compliance with 40 CFR 63 Subpart CC and Subpart DDDDD (40 CFR 63 Subpart CC, Subpart DDDDD and ARM 17.8.1212).

Recordkeeping

Z.25. All test records must be maintained on site and submitted to DEQ in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

Z.26. CHS shall document, by month, the total emissions from Hydrogen Reformer Heater. The monthly information shall be used to verify compliance with the rolling 12-month limitations within this permit (ARM 17.8.1212).

Z.27. CHS shall comply with the recordkeeping requirements including LDAR contained in 40 CFR 60, Subpart VVa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

Z.28. CHS shall comply with the recordkeeping requirements in 40 CFR 60 Subpart Ja, Subpart GGGa, and Subpart QQQ (ARM 17.8.340, 40 CFR 60 Subpart Ja, and 40 CFR 60 Subpart QQQ).

Z.29. CHS shall comply with the recordkeeping requirements 40 CFR 63 Subpart CC and 40 CFR 63 Subpart DDDDD (ARM 17.8.342, 40 CFR 63 Subpart CC and 40 CFR 63 Subpart DDDDD).

Reporting

Z.30. All source test reports shall be submitted to DEQ in accordance with Section III.A.2 (ARM 17.8.106).

Z.31. CHS shall prepare and submit a quarterly MAQP emission report within 30 days of the end of each reporting period. The reports shall be submitted electronically to the Helena Air Quality Bureau's Administrative email address or uploaded to the State of Montana's File Transfer Service (or equivalent service). The report shall include the following:

a. Summary of deviations from MAQP permit limits and conditions which occurred during the reporting period. If not previously provided, the report should include the reasons for occurrence, mitigative measures utilized and corrective actions taken to prevent recurrence of the event. If previously provided, the summary shall include the date the report was submitted.

b. A summary report for all CEMS required by the MAQP in this section of the operating permit

Z.32. CHS shall comply with the reporting requirements including LDAR contained in 40 CFR 60, Subpart VVa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

Z.33. CHS shall comply with the reporting requirements contained in 40 CFR 60, Subpart Ja and 40 CFR 60 Subpart QQQ (ARM 17.8.340, 40 CFR 60 Subpart Ja and 40 CFR 60 Subpart QQQ).

Z.34. CHS shall comply with the reporting requirements contained in 40 CFR 63, Subpart CC and Subpart DDDDD (ARM 17.8.342, CFR 63 Subpart CC and Subpart DDDDD).

Z.35. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

Z.36. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of any source tests required and submitted to DEQ during the reporting period, which shall include the date the source test report was performed, the date the source test was submitted to the Department, and noting if the test indicated compliance or noncompliance with associated limits;

b. Summary of compliance with 40 CFR 60 Subpart Ja during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart Ja;

c. Summary of compliance with 40 CFR 60 Subpart GGGa during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart GGGa;

d. Summary of compliance with 40 CFR 60 Subpart QQQ during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 60 Subpart QQQ;

e. Summary of compliance with 40 CFR 63 Subpart CC during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart CC;

f. Summary of compliance with 40 CFR 63 Subpart DDDDD during the reporting period. This reporting requirement does not require the permittee to submit any report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD;

g. Summary of compliance with unit emission limits and conditions and dates that quarterly emission reports were submitted as required by Section III.Z.31.

AA. EU026 - Stationary Engines

Emergency Generators

Admin 1 EG (Admin1Gen) (021-GN-0204)
Zone C DCS EG (024-SG-001)
Zone E DCS EG (075-SG-001)
CCB EG1 (002-SG-002)
CCB EG2 (002-SG-003)
Zone B DCS EG (004-SG-025)
Westside Complex EG (002-SG-001)
Zone D DCS EG (065-SG-003)
Zone A DCS EG (004-SG-001)
Truck Terminal EG (LrlTermGen)
Admin 3 EG (Admin3Gen) (021-GN-1031)

Diesel Fire Water Pump Engines
East Fire Pump #1 (EG-2205)
East Fire Pump #2 (EG-2206)
Tank 134 East Pump (P-2207)
Tank 134 West Pump (P-2208)
West Diesel Pump (P-2204)

Emergency Plant Air Compressors
Zone C Plant Air Compressor (024CO0064)
Zone E Plant Air Compressor (026CO0004)

Equipment #	Description	NSPS subpart IIII	NSPS subpart JJJJ	40 CFR 63 subpart ZZZZ
Emergency Generators				
021-GN-0204	Admin 1 EG		N	Existing
024-SG-001	Zone C DCS EG		N	New
075-SG-001	Zone E DCS EG		N	New
002-SG-002	CCB EG1		N	New
002-SG-003	CCB EG2		N	New
004-SG-025	Zone B DCS EG		Y	New
002-SG-001	Westside Complex EG		Y	New
065-SG-003	Zone D DCS EG		Y	New
004-SG-001	Zone A DCS EG		Y	New
LrlTermGen	Truck Terminal EG		Y	New
021-GN-1031	Admin 3 EG		Y	New
Fire Water Pump Engines				
EG-2205	East Fire Pump #1	N		Existing
EG-2206	East Fire Pump #2	N		Existing
P-2207	Tank 134 East Pump	Y		New
P-2208	Tank 134 West Pump	Y		New
P-2204	West Diesel Pump	Y		New
Emergency Plant Air Compressors				
024CO0064	Zone C Plant Air Compressor	N		Existing
026CO0004	Zone E Plant Air Compressor	N		Existing

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
AA.1, AA.5, AA.9, AA.13, AA.16, AA.17	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	Semiannually
AA.2, AA.6, AA.10, AA.14, AA.16, AA.17	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
AA.3, AA.7, AA.11, AA.15, AA.16, AA.17	40 CFR 60 Subpart JJJJ	40 CFR 60 Subpart JJJJ	40 CFR 60 Subpart JJJJ	40 CFR 60 Subpart JJJJ	
AA.4, AA.8, AA.12, AA.16, AA.17	Ultra-Low Sulfur Diesel	0.0015% sulfur content	Recordkeeping	Ongoing	

AA.1. CHS shall comply with the applicable requirements of 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; for Tank 134 East Pump (P-2207), Tank 134 West Pump (P-2208) and the West Diesel Pump (P-2204) (ARM 17.8.340 and 40 CFR 60 Subpart IIII).

AA.2. CHS shall comply with the applicable requirements 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for all units listed under (EU026) Stationary Engines (ARM 17.8.342 and 40 CFR 63 Subpart ZZZZ).

AA.3. CHS shall comply with the applicable requirements of 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines; for the Zone B DCS EG (004-SG-025), Westside Complex EG (002-SG-001), Zone D DCS EG (065-SG-003), Zone A DCS EG (004-SG-001), Truck Terminal EG (LrlTermGen), Admin 3 EG (21-GN-1031) (ARM 17.8.340 and 40 CFR 60 Subpart IIII).

AA.4. CHS shall use only ultra-low-sulfur diesel fuel with a sulfur content less than or equal to 0.0015% in the diesel-fired engines (40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ and ARM 17.8.1211).

Compliance Demonstration

AA.5. CHS shall demonstrate compliance with 40 CFR 60 Subpart IIII through the applicable monitoring and compliance requirements of 40 CFR 60 Subpart IIII, including any applicable requirements specified at 40 CFR 60.4209 and 40 CFR 60.4211 (ARM 17.8.340 and 40 CFR 60 Subpart IIII).

AA.6. CHS shall demonstrate compliance with 40 CFR 63 Subpart ZZZZ through the applicable compliance requirements of 40 CFR 63 Subpart ZZZZ (ARM 17.8.342 and 40 CFR 63 Subpart ZZZZ).

AA.7. CHS shall demonstrate compliance with 40 CFR 60 Subpart JJJJ through the applicable monitoring and compliance requirements of 40 CFR 60 Subpart JJJJ (ARM 17.8.340 and 40 CFR 60 Subpart JJJJ).

AA.8. CHS shall demonstrate compliance with the diesel sulfur limit of Section III. AA.4 by keeping records of the sulfur content of the diesel fuel used (ARM 17.81212).

Recordkeeping

AA.9. CHS shall comply with the applicable recordkeeping requirements of 40 CFR 60 Subpart IIII including any applicable recordkeeping requirements specified at 40 CFR 60.4214 (ARM 17.8.340 and 40 CFR 60 Subpart IIII).

AA.10. CHS shall comply with the applicable reporting requirements of 40 CFR 63, Subpart ZZZZ including any applicable requirements of 40 CFR 63.6655 (ARM 17.8.342 and 40 CFR 63 Subpart ZZZZ).

AA.11. CHS shall comply with the applicable recordkeeping requirements of 40 CFR 60 Subpart JJJJ including any applicable recordkeeping requirements (ARM 17.8.340 and 40 CFR 60 Subpart JJJJ).

AA.12. CHS shall maintain the engine specification sheet records for the engine on-site for the duration of the stay of the engine on-site. For any engine no longer on-site, CHS shall maintain records of the specification sheets of the engine(s) previously on-site for a minimum of 5 years from the date the engine was removed. The records shall indicate the dates the engine(s) were on-site (ARM 17.8.1212).

Reporting

AA.13. CHS shall comply with the applicable notification and reporting requirements of 40 CFR 60 Subpart IIII including any applicable notification and reporting requirements specified at 40 CFR 60.4214.

AA.14. CHS shall comply with the applicable notification and reporting requirements of 40 CFR 63 Subpart ZZZZ, including any applicable requirements of 40 CFR 63.6650.

AA.15. CHS shall comply with the applicable notification and reporting requirements of 40 CFR 60 Subpart JJJJ including any applicable notification and reporting requirements.

AA.16. The semiannual reporting shall provide (ARM 17.8.1212):

a. Statement of demonstration methodology regarding the sulfur content of diesel fuel fired in the engines.

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart IIII during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 60 Subpart IIII required compliance report or compliance status determination earlier than is required by 40 CFR 60 Subpart IIII.

c. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart ZZZZ during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 63 Subpart ZZZZ required compliance report or compliance status determination earlier than is required by 40 CFR 63 Subpart ZZZZ.

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart JJJJ during the semi-annual period. This reporting requirement does not require the

permittee to submit any 40 CFR 60 Subpart JJJJ required compliance report or compliance status determination earlier than is required by 40 CFR 60 Subpart JJJJ.

AA.17. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

Section IV. NON-APPLICABLE REQUIREMENTS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emissions unit at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

A. Facility-Wide

The following table contains non-applicable requirements that are administrated by the Air Quality Bureau of DEQ of Environmental Quality.

Rule Citation	Reason
ARM 17.8.320, ARM 17.8.321, ARM 17.8.326, ARM 17.8.330, ARM 17.8 331, ARM 17.8.332, ARM 17.8.333, ARM 17.8.771, ARM 17.8.1601-17.8.1606 ARM 17.8.1701-17.8.1705, and ARM 17.8.1710-17.8.1713	These rules are not applicable because the facility is not listed in the source category cited or does not have the specific emission unit(s) cited in the rules.
40 CFR 60 Subparts B, C, Cb-Cf 40 CFR 60 Subparts D, Da, Dc 40 CFR 60 Subparts E-I, 40 CFR 60 Subparts L-Z 40 CFR 60 Subparts AA-EE 40 CFR 60 Subparts GG-HH 40 CFR 60 Subparts KK-NN 40 CFR 60 Subparts PP-TT 40 CFR 60 Subpart WW 40 CFR 60 Subparts AAA- BBB 40 CFR 60 Subpart DDD 40 CFR 60 Subparts FFF 40 CFR 60 Subparts HHH-LLL 40 CFR 60 Subparts NNN-PPP 40 CFR 60 Subparts RRR-XXX 40 CFR 60 Subparts AAAA-FFFF 40 CFR 60 Subparts KKKK- MMMM 40 CFR 60 Subpart OOOO-OOOOa 40 CFR 60 Subpart QQQQ 40 CFR 60 Subparts TTTT-UUUU	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 61 Subparts B-F 40 CFR 61 Subparts H-L 40 CFR 61 Subparts N-R 40 CFR 61 Subpart T 40 CFR 61 Subparts W 40 CFR 61 Subpart Y 40 CFR 61 Subpart BB	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 63 Subparts F-G 40 CFR 63 Subparts I-J	

Rule Citation	Reason
40 CFR 63 Subparts L-O 40 CFR 63 Subparts Q 40 CFR 63 Subpart S-U 40 CFR 63 Subparts W-Y 40 CFR 63 Subparts AA-BB 40 CFR 63 Subparts DD-EE 40 CFR 63 Subparts GG - RR 40 CFR 63 Subpart VV 40 CFR 63 Subparts XX-YY 40 CFR 63 Subpart CCC-EEE 40 CFR 63 Subpart GGG-JJJ 40 CFR 63 Subpart LLL-RRR 40 CFR 63 Subpart TTT 40 CFR 63 Subpart VVV 40 CFR 63 Subpart XXX 40 CFR 63 Subpart AAAA 40 CFR 63 Subpart CCCC-DDDD 40 CFR 63 Subpart FFFF-KKKK 40 CFR 63 Subpart MMMM-YYYY 40 CFR 63 Subpart AAAAA-CCCCC 40 CFR 63 Subpart EEEEE-NNNNN 40 CFR 63 Subpart PPPPP-UUUUU 40 CFR 63 Subpart WWWWW 40 CFR 63 Subparts YYYYY-ZZZZZ 40 CFR 63 Subparts BBBBBB-HHHHHH 40 CFR 63 Subpart JJJJJJ 40 CFR 63 Subparts LLLLLL-TTTTTT 40 CFR 63 Subparts VVVVVV-EEEEEEE 40 CFR 63 Subpart HHHHHHHH	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 82 Subparts A-E 40 CFR 82 Subpart G	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 72 through 40 CFR 78	These requirements are not applicable because the facility is not an affected source as defined by the acid rain regulations.
40 CFR 87, 40 CFR 91, 40 CFR 92, and 40 CFR 94	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 55, 57 and 59	These requirements are not applicable to this source

B. Emission Units

The permit application identified applicable requirements as well as non-applicable requirements. DEQ has listed all non-applicable requirements in Section IV.A. These requirements relate to each specific unit as well as facility wide.

Section V. GENERAL PERMIT CONDITIONS

A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.

4. The permittee shall furnish to the Department, within a reasonable time set by DEQ (not to be less than 15 days), any information that DEQ 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 DEQ copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.

5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.

6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, 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. Compliance certifications shall be submitted by February 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

3. Compliance certifications shall include the following:

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

   b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term and condition during the certification period, consistent with ARM 17.8.1212;

   c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above); and

   d. Such other facts as DEQ may require to determine the compliance status of the source.

4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix C of this permit.

C. Permit Shield

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.

2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.

3. Nothing in this permit alters or affects the following:

   a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section;

   b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

   c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA;

d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA;

e. The ability of DEQ to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA;

f. The emergency powers of DEQ under the Montana Clean Air Act, Title 75, Chapter 2, MCA; and

g. The ability of DEQ to establish or revise requirements for the use of Reasonably Available Control Technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.

4. Nothing in this permit alters or affects the ability of DEQ to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.

5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.

6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).

7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & O).

D. Monitoring, Recordkeeping, and Reporting Requirements

ARM 17.8, Subchapter 12, operating Permit Program §1212(2)&(3)

1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:

a. The date, place as defined in the permit, and time of sampling or measurement;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions at the time of sampling or measurement.

2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.

3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses 0 of this permit, reports of any required monitoring by February 15 and August 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on February 15 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on August 15 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. Prompt Deviation Reporting
ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(b)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported to DEQ within the following timeframes (unless otherwise specified in an applicable requirement):

1. For deviations which may result in emissions potentially in violation of permit limitations:

   a. An initial phone notification (or faxed or electronic notification) describing the incident within 24 hours (or the next business day) of discovery; and,

   b. A follow-up written, faxed, or electronic report within 30 days of discovery of the deviation that describes the probable cause of the reported deviation and any corrective actions or preventative measures taken.

2. For deviations attributable to malfunctions, deviations shall be reported to DEQ in accordance with the malfunction reporting requirements under ARM 17.8.110; and
3. For all other deviations, deviations shall be reported to DEQ via a written, faxed, or electronic report within 90 days of discovery (as determined through routine internal review by the permittee).

Prompt deviation reports do not need to be resubmitted with regular semiannual (or other

routine) reports but may be referenced by the date of submittal.

F. Emergency Provisions

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13), §1214(5)-(8), and §1224(6)

In July 2023, EPA rescinded the emergency affirmative defense in its Title V regulations, arguing it was inconsistent with the Clean Air Act because it could limit a court's authority over remedies and potentially violate the continuous nature of emission standards. In response, each state which had emergency provisions within their title V operating permit program, including Montana, was required to remove the affected provisions from their operating permit program rules and from affected title V operating permits at renewal or during permit revisions. Montana officially removed the affected affirmative defense provisions cited here from the Administrative Rules of Montana (ARM), Title 17, Chapter 8, Subchapter 12.

Subsequently, in September 2025, the D.C. Circuit Court of Appeals reinstated the Clean Air Act emergency affirmative defense, reversing the EPA's 2023 rescission of the rule that provides a defense against liability for excess emissions during sudden, unforeseeable emergencies. The court found the EPA's rescission unlawful because an affirmative defense does not interfere with the court's authority to determine liability and does not exempt a source from continuous emission standards. In response, EPA will need to add the affirmative defense provisions back into its Title V, Part 70 regulations. If this reinstatement does occur, Montana will also add the affected provisions back into its Title V operating permit program and maintain the affected regulations in Title V operating permits.

G. Inspection and Entry

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of DEQ or the administrator) to perform the following:

    a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

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

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

    d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.

2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the

Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. Fee Payment

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.

2. Annually, DEQ shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.

3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, DEQ may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or $100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. Minor Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.

2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. Changes Not Requiring Permit Revision

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:

   a. The proposed changes do not require the permittee to obtain an air quality preconstruction permit under ARM Title 17, Chapter 8, Subchapter 7;

   b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;

c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;

d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and

e. The facility provides the administrator and DEQ with written notification at least 7 days prior to making the proposed changes.

2. The permittee and DEQ shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.

3. Pursuant to the conditions above, the permittee is authorized to make Section 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:
   a. Each proposed change does not weaken the enforceability of any existing permit conditions;

   b. DEQ has not objected to such change;

   c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and

   d. The permittee provides contemporaneous written notice to DEQ and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. Significant Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:

   a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;

b. Every significant change in existing permit monitoring terms or conditions;

c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; or

d. Any other change determined by DEQ to be significant.

2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.

3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. Reopening For Cause

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances:

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);

2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;

3. DEQ or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or

4. The administrator or DEQ determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. Permit Expiration and Renewal

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.

2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.

3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.

4. For renewal, the permittee shall submit a complete air quality operating permit application to DEQ not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, DEQ may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. Severability Clause
ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by DEQ of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.

2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. Transfer or Assignment of Ownership
ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to DEQ a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.

2. The permit shield provided for in ARM 17.8.1214 shall not extend to administrative permit amendments.

P. Emissions Trading, Marketable Permits, Economic Incentives
ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State

Implementation Plan or in applicable requirements promulgated by the administrator.

Q. No Property Rights Conveyed
ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

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

R. Testing Requirements
ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. Source Testing Protocol
ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. Malfunctions
ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. Circumvention
ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. Motor Vehicles
ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. Annual Emissions Inventory
ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply DEQ with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

X. Open Burning
ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. Montana Air Quality Permits
ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764

1. Except as specified, no person shall construct, install, modify or use any air contaminant source or stack associated with any source without first obtaining a permit from DEQ or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).

2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.

3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding a Montana Air Quality Permit (MAQP) issued under Chapter 8 that does not increase the facility's potential to emit by more than 5 tons per year of any pollutant, except:

   a. Any construction or changed condition that would violate any condition in the facility's existing MAQP or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);

   b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;

   c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;

   d. Any construction or improvement project with a potential to emit more than 5 tons per year may not be artificially split into smaller projects to avoid Montana Air Quality Permitting; or

   e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.

4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify DEQ if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1).

Z. National Emission Standard for Asbestos

40 CFR 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. Asbestos
ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only).

BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners
40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. Stratospheric Ozone Protection – Recycling and Emission Reductions
40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

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

2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161;

4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166;

5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. Emergency Episode Plan

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to DEQ a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

EE. Definitions

Terms not otherwise defined in this permit or in the Definitions and Abbreviations in Appendix B of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

Appendix A: INSIGNIFICANT EMISSION UNITS

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist CHS, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emission unit located within a source that: (i) has a potential to emit less than 5 tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to Sec. 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

The following table of insignificant sources and/or activities were provided by CHS. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

Emission Unit ID	Description
IEU01	Electric heater and motors
IEU02	Cooling water service and return
IEU03	Service and storage with < 10% hydrocarbons
IEU04	Steam system
IEU05	Plant air system including but not limited to instrument air piping and air compressors
IEU06	Fresh water system, including but not limited to the river pumping system and boiler feedwater treatment system
IEU07	Crude pipelines supplying the refinery and product pipelines from the refinery
IEU08	Natural gas fired space heaters in buildings
IEU09	Tanks under pressure
IEU10	Any functions performed in shop areas, including but not limited to the machine shop and paint shop
IEU11	Any chemicals contained in spray paint, lubricants, etc.
IEU12	Any nuclear density gauges and measurement devices
IEU13	Any diesel-driven equipment such as pumps (excluding stationary fire water pump engines)
IEU14	Laboratory activities
IEU15	Air preheater during FCC startups
IEU16	10 kW generator

Appendix B: DEFINITIONS and ABBREVIATIONS

"Act" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

"Administrative permit amendment" means an air quality operating permit revision that:

(a) Corrects typographical errors;

(b) Identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;

(c) Requires more frequent monitoring or reporting by CHS;

(d) Requires changes in monitoring or reporting requirements that DEQ deems to be no less stringent than current monitoring or reporting requirements;

(e) Allows for a change in ownership or operational control of a source if DEQ has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; or

(f) Incorporates any other type of change which DEQ has determined to be similar to those revisions set forth in (a)-(e), above.

"Applicable requirement" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by DEQ or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;

(b) Any federally enforceable term, condition or other requirement of any air quality preconstruction permit issued by DEQ under Subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;

(c) Any standard or other requirement under Sec. 7411 of the FCAA, including Sec. 7411(d);

(d) Any standard or other requirement under Sec. 7412 of the FCAA, including any requirement concerning accident prevention under Sec. 7412(r)(7), but excluding the contents of any risk management plan required under Sec. 7412(r);

(e) Any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder;

(f) Any requirements established pursuant to Sec. 7661c(b) or Sec. 7414(a)(3) of the FCAA;

(g) Any standard or other requirement governing solid waste incineration, under Sec. 7429 of the FCAA;

(h) Any standard or other requirement for consumer and commercial products, under Sec. 7511b(e) of the FCAA;

(i) Any standard or other requirement for tank vessels, under Sec. 7511b(f) of the FCAA;

(j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;

(k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Sec. 7661c(e) of the FCAA; or

(l) Any federally enforceable term or condition of any air quality open burning permit issued by DEQ under Subchapter 6.

"Department" means the Montana Department of Environmental Quality.

"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"FCAA" means the Federal Clean Air Act, as amended.

"Federally enforceable" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

"Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General air quality operating permit" or **"general permit"** means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"Hazardous air pollutant" means any air pollutant listed as a hazardous air pollutant pursuant to Sec. 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emission units in a source requiring an air quality operating permit:

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;

(b) Any term, condition or other requirement contained in any air quality preconstruction permit issued by DEQ under Subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable;

(c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

"Permittee" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"Regulated air pollutant" means the following:

(a) Nitrogen oxides or any volatile organic compounds;

(b) Any pollutant for which a national ambient air quality standard has been promulgated;

(c) Any pollutant that is subject to any standard promulgated under Sec. 7411 of the FCAA;

(d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA; or

(e) Any pollutant subject to a standard or other requirement established or promulgated under Sec. 7412 of the FCAA, including but not limited to the following:

(i) Any pollutant subject to requirements under Sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Sec. 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in Sec. 7412(e) of the FCAA;

(ii) Any pollutant for which the requirements of Sec. 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Sec. 7412(g)(2) requirement.

"Responsible official" means one of the following:

(a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Department.

(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).

(d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

Abbreviations:

AMP	Alternative Monitoring Plan(s)
API	American Petroleum Institute
ARM	Administrative Rules of Montana
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CEMS	continuous emissions monitoring system
CERMS	continuous emissions rate monitoring system
CFR	Code of Federal Regulations
CO	carbon monoxide
COMS	continuous opacity monitoring system
CPI	corrugated plate interceptor
DAF	dissolved air flotation
DEQ	Department of Environmental Quality
dscf	dry standard cubic foot
dscfm	dry standard cubic foot per minute
EEAP	Emergency Episode Action Plan
EPA	U.S. Environmental Protection Agency
EPA Method	Test methods contained in 40 CFR 60, Appendix A
EU	emissions unit
FCAA	Federal Clean Air Act
FCCU	Fluid Catalytic Cracking Unit
gr	grains
HAP	hazardous air pollutant
HDS	hydrodesulphurization
IEU	insignificant emissions unit
LDAR	leak detection and repair
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MHC	mild hydrocracker
MMBtu	million British Thermal Units
NO_X	oxides of nitrogen
NO_2	nitrogen dioxide
NSR	New Source Review
O_2	oxygen
Pb	lead
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or less in size
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 microns or less in size
psi	pounds per square inch
RATA	relative accuracy test audit
scf	standard cubic feet
SIC	Source Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	oxides of sulfur

SRP	sulfur recovery plan
SRU	sulfur recovery unit
TGTU	tail gas treatment unit
TGI	tail gas incinerator
TPY	tons per year
U.S.C.	United States Code
ULNB	Ultra-Low NO_X Burner
ULSD	Ultra Low Sulfur Diesel
VCU	vapor combustion unit
VE	visible emissions
VOC	volatile organic compound

Appendix C: NOTIFICATION ADDRESSES

Compliance Notifications:

Montana DEQ Helena Office:

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901

US EPA Region VIII, Montana Office:

Enforcement and Compliance Assurance Division
Air Enforcement Branch
US EPA Region VIII, Montana Office
10 W. 15th Street, Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901

Air and Radiation Division
Permit and Monitoring Branch
US EPA Region VIII, 8ARD-PM
1595 Wynkoop Street
Denver, CO 80202-1129

Appendix D: AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable but is presented to assist CHS, permitting authority, inspectors, and the public.

Direction to Plant: 803 Highway 212 South, Laurel, Montana, 59044

Safety Equipment Required: CHS has an extensive safety orientation package that inspectors and/or visitors must participate in.

All refinery visitors are required to sign-in at the reception desk in the administration building. They will receive either an access card for refinery entrance or a yellow tag for office visitation. Visitors that will go into the refinery are required to watch a short hazard awareness video and will be issued a hard hat, safety glasses and fire-retardant clothing, if they do not have their own. Visitors must be accompanied by their refinery contact, a CHS employee or security guard at all times. Upon departure, they will return the pass and any PPE issued and log their time out.

Facility Plot Plan: An updated facility plot plan was submitted with the April 2, 2019, renewal application.

Appendix E: June 12, 1998, and March 17, 2000, Board Orders Adopting an SO_2 Control Plan

Although the hard copy of Appendix E has been removed from the permit, the contents of Appendix E, June 12, 1998, and March 17, 2000, Board Orders Adopting an SO_2 Control Plan remain as applicable requirements as stated in the Title V Operating Permit OP1821-01. To receive a hard copy of this appendix, please contact one of the following:

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau
1520 E. Sixth Ave.
P.O. Box 200901
Helena, Montana 59620-0901
Bureau Phone #: (406) 444-3490

OR

CHS, Inc. – Laurel Refinery
803 Highway 212 South
PO Box 909
Laurel, MT 59044-0909

The EPA SIP-approval of the SO_2 Emission Control Plan, dated May 2, 2002, and May 22, 2003, can be supplied by the Department, or can be obtained via the web at the following website:

http://www.epa.gov/fedrgstr/