October 13, 2017

Mr. Ray Rigdon
Phillips 66 Company
Billings Refinery
P.O. Box 30198
Billings, MT 59107-0198

RE: Final Title V Operating Permit #OP2619-11

Dear Mr. Rigdon:

The Department of Environmental Quality has prepared the enclosed Final Operating Permit #OP2619-11, for Phillips 66 Company, located in NW ¼ Section 2, Township 1 South, Range 26 East, Yellowstone County, Montana. Please review the cover page of the attached permit for information pertaining to the action taking place on Permit #OP2619-11.

If you have any questions, please contact Shawn Juers, the permit writer, at (406) 444-2049 or by email at sjuers@mt.gov.

Sincerely,

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

Shawn Juers
Environmental Engineer
Air Quality Bureau
(406) 444-2049

JM: SJ
Enclosure
Cc: Robert Duraski, US EPA Region VIII 8P-AR
Robert Gallagher, USA EPA Region 8 – Montana Operations

STATE OF MONTANA
Department of Environmental Quality
Helena, Montana 59620

AIR QUALITY OPERATING PERMIT OP2619-11

Issued to: Phillips 66 Company
Billings Refinery
P.O. Box 30198
Billings, MT 59107-0198
NW ¼ Section 2, Township 1 South, Range 26 East, Yellowstone County

Final Date:	**October 13, 2017**
Expiration Date:	**June 13, 2019**
Date of Decision:	**September 12, 2017**
Complete Renewal Application Due:	**December 13, 2018**

AFS Number: 030-111-0011A

Permit Issuance and Appeal Processes: In accordance with Montana Code Annotated (MCA) Sections 75-2-217 and 218 and the Administrative Rules of Montana (ARM), ARM Title 17, Chapter 8, Subchapter 12, Operating Permit Program, this operating permit is hereby issued by the Department of Environmental Quality (Department) as effective and final on October 13, 2017. This permit must be kept on-site at the above named facility.

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Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix 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: Phillips 66 Company, Billings Refinery

Mailing Address: P.O. Box 30198, 401 South 23rd Street

City: Billings **State:** Montana **Zip:** 59107-0198

Plant Location: NW ¼ Section 2, Township 1 South, Range 26 East, Yellowstone County

Responsible Official: Raymond W. Rigdon
Phone: (406) 255-2551
Email: raymond.w.rigdon@p66.com

Alternate Responsible Official: Donald Susanen
Phone: (406) 255-2476
Email: Donald.J.Susanen@p66.com

Facility Contact Person: Steve Torpey
Phone: (406) 255-2580
Email: steve.torpey@p66.com

Primary SIC Code: 2911

Nature of Business: Petroleum Refining

Description of Process: The refining process distills crude oil using heat. This distillation separates the crude oil into its component parts. The refiner then cracks some of the heavier molecules by applying heat in the presence of a catalyst to make the reaction take place. 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 Phillips 66 Billings Refinery also includes the Jupiter Sulfur Recovery Facility. The recovery facility utilizes sulfur from the refining process to produce fertilizer.

The Phillips 66 Pipeline Company's Billings Transportation Operations (Phillips 66) is a support facility for the Phillips 66 Billings Refinery. As such, it is included in conjunction with the refinery for Prevention of Significant Deterioration (PSD), Maximum Achievable Control Technology (MACT), and other permitting determinations.

The transportation operations were previously permitted as part of the refinery's Title V Operating Permit #OP2619, and is still contained as part of the Montana Air Quality Permit (MAQP) #2619. However, since there are separate management structures, the facility requested to separate the transportation operations from the refinery in a separate operating permit, which was assigned Operating Permit #OP4056.

SECTION II. SUMMARY OF EMISSIONS UNITS

The emissions units regulated by this permit are the following (ARM 17.8.1211). See DEFINITIONS and ABBREVIATIONS for acronyms and definitions:

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	**Boilers**: Main Boiler House Stack: Boilers B-1, B-2, B-5, and B-6, and Temporary Boiler.	Amine Treatment for NSPS and State fuel gas sulfur content and SO_2 limitations NSPS Db for B-5 and B-6 (PM and NO_X). Temp Boiler not subject to this subpart. MACT DDDDD for all boilers (PM and CO as surrogate for HAPS) ULNB for B-5 and B-6 State NO_X, CO and VOC emissions limitations for B-5 and B-6 8 weeks and 51 MMBtu/hr on temp boiler – turnarounds only
EU002	**FCCU:** FCCU Regenerator	NSPS J PM Limit controlled by cyclones and/or Pall Filter NSPS J CO Limit NSPS J SO_2 Limit MACT UUU (PM as surrogate for metal HAPs, CO as surrogate for organic HAPs) GOHDS Outage Plan State SO_2 limitations
EU003	**Fuel Gas Combustion Units:** H-1, H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-23, H-24, H-3901, H-8401, H-8402, H-9401, 9501, 9502, and 9701. (Two Operating Scenarios for Pre- and Post-Vacuum Improvement Project)	NSPS J – all units except Ja units NSPS Ja for Post-Vacuum Improvement Project H-24 and H-17

Emissions Unit ID	Description	Pollution Control Device/Practice
		Additional State Fuel Gas H_2S conditions Low NO_X Burners MACT DDDDD
EU004	**Refinery Flare (Refinery Main Plant Relief Flare)** Emergency Flare	Flare is control equipment, operating under NSPS Ja
EU005	**Cooling Towers associated with Vacuum Improvement Project and NaHS Project:** Cooling Tower CWT-5 Jupiter Cooling Tower CT 615-A/B/C Jupiter Cooling Tower CT-120 Jupiter Cooling Tower CT-602	Drift Eliminators MACT CC State Conductivity Limits
EU006	**Refinery Fugitive Emissions** - Cryogenic Unit, - C-23 Compressor Station, - C-3901 Coker Unit Wet Gas Compressor - C-5301 Flare Gas Recovery Unit Liquid Ring Compressor - C-5302 Flare Gas Recovery Unit Liquid Ring Compressor - C-8301 Cryo Unit Inlet Gas Compressor - C-8302 Cryo Unit Refrigerant Compressor - C-8303 Cryo Unit Regeneration Gas Compressor - C-8401 No. 4 HDS Makeup/Recycle Hydrogen Compressor - C-7401 Hydrogen Makeup/Reformer Hydrogen Compressor - C-9401 Hydrogen Plant Feed Gas Compressor - C-9501 Makeup/Recycle Gas Compressor - C-9701 Feed Gas Compressor - C-8402 Makeup/Recycle Hydrogen Compressor - Hydrogen Membrane Unit, - Gasoline Merox Unit, - Hydrogen Plant Feed System, - Alkylation Unit Butane Defluorinator Project, - PMA Process Unit, - Depropanizer Project, - Crude Topping Units, - Crude Vacuum Unit, - Fluidized Catalytic Cracking Unit,	NSPS GGG and GGGa MACT CC NSPS Ja for Delayed Coking Unit

Emissions Unit ID	Description	Pollution Control Device/Practice
	- Catalytic Reforming Units #1 & #2, - Alkylation Unit, - Hydrodesulfurization Units #1 & #2, - Gas Oil Hydrotreating Unit, - Delayed Coking Unit, - Upgrading, Treating, and Recovery Units, - Cryo Debutanizer Unit, - Butamer/Feed Prep Unit, - Gas Recovery Plant Unit, - Naphtha Splitter Unit, - Sat Gas Plant Unit, - Hydrogen Purification Unit, - Railroad Loading Rack, - Cooling Towers, and - Tank Farm.	
EU007	**Sulfur Recovery Facility** - Ammonium Thiosulfate (ATS) Unit, - Ammonium Sulfide Unit, - Sulfur Recovery Units 1 and 2 (SRU), and - Jupiter SRU Flare. Under Operating Scenario 2, SRU #1 is modified, the existing SRU #2 remains, and a new SRU #3 is placed in service.	NSPS Ja MACT UUU CAM Plan
EU008	**Storage Tanks (non-wastewater)** (*see Transportation Operations #OP4056 for additional tankage)* Refinery MACT 1 Group 1: - Crude Oil Storage Tanks #1, #2, and #1102; - Gasoline, Naphtha, and Other Storage Tanks: #3, #5, #7, #9, #12, #16, #21, #41, #42, #45, #46, #49, #52, #55, #72, #75, #80, #86, #87, #102, #110, #851, #2909 Refinery MACT 1 Group 2: - Asphalt and PMA Storage Tanks #4, #62, #100, #101 & #3201 - Jet A, Distillate, and Diesel Storage Tanks #8, #10, #14, #20, #33, #47, #48, #53, #54, #57, #74, - Residual and Fuel Oil Storage Tanks #6, #17,# 39, #40, #69, #70, #81, #107 - Other Storage Tanks #11, #13, #18, #32, #59, #60, #82, #88, #91, #92, #116, #801 Organic Liquid Distribution MACT: - Proto Gas Tanks #2901 - #2907 - Dye & Other Tanks #78, #79 & #109 Other - Propane Tanks	NSPS K, Ka, Kb, UU MACT CC, EEEE

Emissions Unit ID	Description	Pollution Control Device/Practice
EU010	**Wastewater Treatment** Wastewater Tanks: - #15 – Sour Water - #34, #35 & #164 – Slop Oil - #4523 - WW Surge Wastewater Separators: - #163 – Primary Separator - #169 & #170 – Secondary Separators (CPI) - #4510 & #4511 – Desalter Break - #4512 & #4513 – Coker Break Oily Water Sewer Drain Systems: - Coker Unit, - Gas Oil Hydrotreater, - No.1 Hydrogen Unit (20.0 MMscfd), - No.2 Hydrogen Unit, - No.5 HDS Unit, - C-23 Compressor Station, - Alkylation Unit Butane Defluorinator Project, - Alkylation Unit Depropanizer Project, - #3 Sour Water Stripper, - South Tank Farm, and - Associated Wastewater Tanks	NSPS Kb, QQQ MACT CC NESHAP FF
EU011	**Miscellaneous Process Vents**	MACT CC
EU012	**Catalytic Reforming Units 1 & 2**	MACT UUU
EU013	**Backup Coke Crusher**	None
EU014	**Reciprocating Internal Combustion Engines** - Backup Coke Crusher Engine - Cryo Backup Air Compressor Engine - Boiler House Air Compressor Engine - Storm Water to Holding Pond Pump Engine Boiler House Backup Air Compressor	NSPS IIII and MACT ZZZZ, as applicable

SECTION III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emissions 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	Particulate Matter, Airborne	Reasonable Precaution, Construction	20%
A.9	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E= 0.882 * H^{-0.1664}$ or $E= 1.026 * H^{-0.233}$
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 1979 State Implementation Plan (SIP)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.12	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.13	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-------
A.14	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	65,000-Gallon Capacity	-------

A.15	ARM 17.8.324(2)	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-------
A.16	ARM 17.8.325	Motor Vehicles	Air Pollution Control Devices	-------
A.17	ARM 17.8.615	Firefighting Training Permit	Firefighting Requirements	-------
A.18, A.19	ARM 17.74.336; 40 CFR 61, Subpart M	Asbestos	Asbestos	-------
A.20	ARM 17.8.341	National Emission Standards for Hazardous Air Pollutants (NESHAPs)	All Applicable Provisions of 40 CFR 61, Subpart FF	-------
A.21	ARM 17.8.342	NESHAPs - 40 CFR 63 General Provisions	Start-up, Shutdown, Malfunction (SSM) Plans	Submittal
A.22	40 CFR 68	Chemical Accident Prevention	Risk Management Plan	-------
A.23	ARM 17.8.749	Operating Requirements	All systems totally enclosed	-------
A.24	ARM 17.8.749	Permit Conditions	SO_2	3103 ton/yr
A.25	ARM 17.8.1212	Recordkeeping Requirements	SO_2	-------
A.26	40 CFR 51	SIP	SO_2	-------
A.27	40 CFR 51	SIP – State Only	SO_2	-------
A.28	40 CFR 51	SIP	Sulfur Bearing Gases	-------
A.29	40 CFR 51	SIP	Quantify Emissions	-------
A.30	ARM 17.8.1212	Maintain Records	5 Years	-------
A.31	ARM 17.8.1212	Notification and Reporting	Various	As specified
A.32	ARM 17.8.749 & 17.8.801(7)	Refinery and Terminal	One Source for New Source Review and MACT Purposes	-------
A.33	ARM 17.8.1211(1)(c) and 40 CFR Part 98	Greenhouse Gas Reporting	Reporting	-------
A.34	ARM 17.8.1212	Reporting Requirements	Prompt Deviation Reporting	-------
A.35	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-------
A.36	ARM 17.8.1207	Reporting Requirements	Annual Certification	-------
A.37	ARM 17.8.505	Reporting Requirements	Annual Production Information	-------

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 tests, 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 (dated July 1994 unless superseded by rulemaking), unless alternate methods are approved by the Department.

A.3. Pursuant to ARM 17.8.304(1), Phillips 66 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. This rule does not apply to emissions from new stationary sources listed in ARM 17.8.340 for which a visible emission standard has been promulgated.

A.4. Pursuant to ARM 17.8.304(2), Phillips 66 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. This rule does not apply to emissions from new stationary sources listed in ARM 17.8.340 for which a visible emission standard has been promulgated.

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), Phillips 66 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), Phillips 66 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), Phillips 66 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 an 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, Phillips 66 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 emissions rate in pounds per MMBtu. When two or more fuel-burning units are connected to a single stack, the combined heat input of all units connected to the stack shall not exceed that allowable for the same unit connected to a single stack. This rule does not apply to emissions from new stationary sources listed in ARM 17.8.340 for which a visible emission standard has been promulgated.

A.10. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, Phillips 66 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), Phillips 66 shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU 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 million BTU fired. The rule shall be interpreted to allow for a daily deviation of 0.1 pound of sulfur per million BTU 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 (EPA-approved State Implementation Plan (SIP), September 1979).

A.12. Pursuant to ARM 17.8.322(5), Phillips 66 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 one pound of sulfur per million BTU fired. The rule shall be interpreted to allow for a daily deviation of 0.1 pound of sulfur per million BTU 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 (EPA-approved SIP, September 1979).

A.13. Pursuant to ARM 17.8.324(3), Phillips 66 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.14. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Phillips 66 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.15. Pursuant to ARM 17.8.324(2), unless otherwise specified by rule or in this permit, Phillips 66 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 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.16. Phillips 66 shall comply with ARM 17.8.325. Phillips 66 may monitor and certify compliance with ARM 17.8.325 by initially surveying its Phillips 66-owned on-road vehicles for the proper pollution control equipment. The survey shall be kept updated with the addition of any newly obtained Phillips 66-owned on-road vehicles. Phillips 66 shall also revise its on-road vehicle maintenance procedure to state that on-road vehicle pollution control equipment removed for maintenance must be repaired and reinstalled or replaced.

A.17. Phillips 66 shall maintain records that they have applied for and, if issued, complied with any required Firefighter Training permit to conduct open burning for fire training purposes (ARM 17.8.615).

A.18. Pursuant to ARM 17.74.336, Phillips 66 shall comply with all the limitations and requirements of their Asbestos Abatement Annual Permit #MTF16-0021, or its updates.

A.19. Phillips 66 shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in the National Emission Standards for Hazardous Air Pollutants (NESHAPs) provisions, as appropriate, of 40 CFR 61, Subpart M Asbestos.

A.20. Phillips 66 shall manage and treat the facility waste, including each process wastewater stream that meets the definition in 40 CFR 61.341, in accordance with the applicable requirements of 40 CFR 61.342(e) (Subpart FF "BQ6" Alternative). Phillips 66 shall comply with applicable testing, monitoring and inspection, recordkeeping and reporting requirements set out under 40 CFR 61, Subpart FF (ARM 17.8.341).

A.21. Pursuant to ARM 17.8.342 and 40 CFR 63.6, Phillips 66 shall submit to the Department a copy of any startup, shutdown, and malfunction (SSM) plan required under 40 CFR 63.6(e)(3) within 30 days of the effective date of this operating permit (if not previously submitted), within 30 days of the compliance date of any new National Emission Standard for Hazardous Air Pollutants (NESHAPs) or Maximum Achievable Control Technology (MACT) standard, and within 30 days of the revision of any such SSM plan, when applicable. The Department requests submittal of such plans in electronic form, when possible.

A.22. A Risk Management Plan, developed in accordance with 40 CFR 68, shall be registered with the United States Environmental Protection Agency by June 21, 1999. Phillips 66 shall submit a certification statement to the Department that states Phillips 66 is in compliance with the requirements of 40 CFR 68, including registration and updates of their Risk Management Plan pursuant to §112(r) of the FCAA (40 CFR 68.150, 160, and 190).

A.23. All systems within the Phillips 66 refinery and Jupiter sulfur recovery facility (modifications) shall be totally enclosed and controlled such that any pollutant generated does not vent to atmosphere, except as expressly allowed in this permit (ARM 17.8.749 and ARM 17.8.1211).

A.24. Unless otherwise specified by rule or in this permit, Phillips 66 shall not cause or authorize total sulfur dioxide (SO_2) emissions from refinery and sulfur recovery facilities to exceed the limit of 3,103 ton/yr. In addition, where applicable, all other federal emission limitations shall be met (ARM 17.8.749 and ARM 17.8.1211).

A.25. Phillips 66 shall maintain, under Phillips 66's control, records of total SO_2 emissions from the refinery and sulfur recovery facilities. This record shall be used to monitor compliance with the limitation as specified in Section III.A.24 (ARM 17.8.1212).

A.26. Pursuant to the June 12, 1998, Board Order adopting a SO_2 control plan (Appendix E of this permit), Phillips 66 shall comply with all requirements of Exhibit A and Attachment 1 of the plan. In addition, Phillips 66 shall comply with all terms as set forth by this permit (Board Order signed on June 12, 1998, the control plan was partially approved/partially disapproved by EPA on May 2, 2002; 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).

A.27. Pursuant to the June 12, 1998, Board Order adopting a SO_2 control plan (Appendix E of this permit), Phillips 66 shall comply with all requirements of Exhibit A-1 and corresponding attachments (Board Order signed on June 12, 1998, the control plan was partially approved/partially disapproved by EPA on May 2, 2002; 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).

A.28. Phillips 66 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 that are not otherwise subject to the Stipulation and Exhibit A (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

A.29. Phillips 66 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, Phillips 66 shall account for such emissions in determining compliance with all applicable emission limits contained in Exhibit A, Section 3 (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

A.30. Phillips 66 shall maintain, under Phillips 66's control, all records required for compliance monitoring as a permanent business record for at least 5 years. Furthermore, the records must be available at the plant site for inspection by the Department and EPA, and must be submitted to the Department upon request (ARM 17.8.1212).

A.31. Phillips 66 shall keep the Department apprised of the status of construction, dates of performance tests, and continuous compliance status for each emission point and pollutant. Specifically, the following report and recordkeeping shall be submitted in writing (ARM 17.8.749 and 17.8.1212):

a. Notification of date of construction commencement, cessation of construction, restarts of construction, startups, initial emission tests, monitor certification tests, etc.

b. Submittal for review by the Department of the emissions testing plan, results of initial compliance tests, continuous emission monitor certification tests, continuous emission monitoring and continuous emissions rate monitoring quality assurance/quality control plans, and excess emissions report within the 180-day shakedown period.

c. Copies of emissions reports, excess emissions, and all other such items shall be submitted to both the appropriate Regional Office from which the Compliance Officer is based from, and the Helena office of the Department.

d. Monitoring data shall be maintained for a minimum of 5 years at the Phillips 66 Refinery and Jupiter sulfur recovery facilities.

e. All data and records that are required to be maintained must be made available upon request by representatives of the EPA.

A.32. Phillips 66 Company, Billings Refinery (including the Jupiter Sulphur plant) and the Phillips 66 Pipe Line Company - Billings Transportation Operations facility shall be considered one

source for the purpose of permitting these facilities with respect to New Source Review. Based on the following determinations, the facilities are considered to be one source (ARM 17.8.749 and 17.8.801(7)):

a. The refinery and the terminal are under common ownership and control.

b. The refinery and the terminal are contiguous and adjacent.

c. The terminal is considered a support facility to the refinery.

A.33. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, Phillips 66 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.34. Phillips 66 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 the Department using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).

A.35. On or before February 15th and August 15th of each year, Phillips 66 shall submit to the Department 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 15th of each year, Phillips 66 may submit a single report provided that it contains all the information required by Section V.B & V.D (ARM 17.8.1212).

> *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.36. By February 15th of each year, Phillips 66 shall submit to the Department the compliance certification report required by Section V.B. The annual certification report 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 (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."***

A.37. Phillips 66 shall supply the Department with annual production information for all emissions points, as required by the Department in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in the Montana Air Quality Permit.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information is required for the annual emission inventory and to verify compliance with permit limitations. For reporting purposes, the equipment should be identified using the emission point numbers specified, and shall include the following (ARM 17.8.505):

Source	**Consumption**
Refinery	
Boilers - Four (4): #B-1, #B-2, #B-5, #B-6	MMscf of gas, %H_2S, gal of fuel oil, %S
Heaters: #1 #2 #4 #5 Coke Heater (H-3901) #10: No.2 HDS #11: No.2 HDS Debutanizer Reboiler #12: No.2 HDS Main Frac. Reboiler #13: Catalytic Reforming Unit #2 #14: Catalytic Reforming Unit #2 #15 #16: Saturated Gas Stabilizer Reboiler and PB Merox Disulfide Offgas #17 #18 #19 #20 #21 #23: Catalytic Reforming Unit #2 #24 Recycle Hydrogen Heater (H-8401) Fractionator Feed Heater (H-8402) No. 1 H_2 Reformer Heater (H-9401) No. 2 H_2 Reformer Heater (H-9701)	MMscf of gas, %H_2S
FCCU	Tons of Emissions/yr
Refinery Main Plant Relief Flare	Tons of Emissions/yr
Storage Tanks	Tons of VOC losses/yr
Bulk Loading	Gallons of Gasoline and Gallons of Distillate Throughput
Fugitive VOC Emissions	i. The number of the following fugitive VOC emission sources in service subject to 40 CFR 60, Subparts GGG or GGGa. a. Gas valves b. Light liquid valves c. Heavy liquid valves d. Hydrogen valves e. Open-end valves f. Flanges g. Pump seals/light liquid

Source	Consumption
	h. Pump seals/heavy liquid
	ii. The number of the following fugitive VOC emission sources in service not subject to 40 CFR 60, Subparts GGG or GGGa. a. Valves b. Flanges c. Pump seals d. Compressor seals e. Relief valves f. Oil/water separators iii. Process drains iv. Wastewater handling v. Coker drill water handling
API and CPI Separator Tanks	Gallons of wastewater throughput VOC emissions in tons/yr
No.1 Hydrogen Plant SMR Heater (22.0 MMscfd)	MMscf of natural gas MMscf of PSA gas
Saturate Gas Plant	Monitoring and Maintenance Records
No.5 HDS Charge Heater No.5 HDS Stabilizer Reboiler Heater	MMscf of gas, %H_2S
No.2 H_2 Unit PSA Offgas Vent No.1 H_2 Unit PSA Offgas Vent	Tons of emissions per year
Temporary Natural Gas Boiler	Hours of operation and MMscf of natural gas
Engine CG3810 (Backup Coke Crusher)	Hours of operation Maximum sulfur content of the diesel fuel used.
Delayed Coking Unit- Vent VOC	Cycles per year
Delayed Coking Unit- Drum Coke Cutting VOC	Cycles per year
Wet Cooling Towers	Gallons of Throughput
Railcar Clarified Oil Loading	Gallons of Clarified Oil Loaded
Reciprocating Internal Combustion Engines	Total hours of each engine and Tier Rating/emission factor of each engine, as applicable
Jupiter	
Main Stack No. 1	Tons of Product Produced Emissions Data
Jupiter Flare – a. Ammonium sulfide unit	Tons of Product Produced Emissions Data
Main Stack No. 2	Tons of Product Produced Emissions Data

B. EU001: Boilers

Main Boiler House Stack Boilers B-1, B-2, B-5, and B-6 and Temporary Boiler

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
B.1, B.15, B.18, B.19, B.30, B.31, B.32, B.37, B.38, B.39, B.43, B.44	SO_2	300 ton/yr from fuel oil combustion, on a rolling 365-day average	CEMS	Ongoing	Quarterly
			Method 6/6c RATA may substitute	Annually	Semiannually
B.2, B.15, B.18, B.19, B.30, B.31, B.32, B.37, B.38, B.39, B.43, B.44.	SO_2	1407.8 ton/yr, 3.857 ton/day, 321.4 lb/hr on a rolling 24-hour average basis	CEMS	Ongoing	Quarterly
			Method 6/6c RATA may substitute	Annually	Semiannually
B.3, B.15, B.18, B.19, B.30, B.31, B.32, B.37, B.38, B.39, B.43, B.44.	SIP: SO_2	964.2 lb/3-hr 7,713.6 lb/cal. day 2,815,464 lb/cal. yr	CEMS	Ongoing	Quarterly
			Method 6/6c RATA may substitute	Annually	Semiannually
B.4, B.16, B.17, B.35,B.40, B.43, B.44.	Refinery Fuel Gas	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J and Semiannually
B.4, B.16, B.17, B.18, B.30, B.31, B.32, B.35, B.37, B.38, B.39, B.40, B.43, B.44.	H_2S	0.10 grains/dscf on a rolling three-hour average basis	CEMS	Ongoing	Quarterly
			Method 11 (RATA may substitute)	Annually	Semiannually
B.5, B.16, B.17, B.18, B.31, B.32, B.33, B.38, B.39, B.43, B.44	H_2S	96 ppmv on a rolling 365-day average	CEMS	Ongoing	Quarterly
B.6, B.20, B.30, B.31, B.37, B.38, B.43, B.44.	Opacity	40% / 20%	Method 9	As required by the Department and Section III.A.1	Semiannually
B.7, B.21, B.30, B.31, B.37, B.38, B.43, B.44.	Particulate Matter Fuel Burning Equipment	$E= 0.882 * H^{-0.1664}$ or $E= 1.026 * H^{-0.233}$	Method 5		
B.8, B.22, B.33, B.41, B.43, B.44.	B-5 and B-6	40 CFR 60, Subpart Db	40 CFR 60 Subpart Db	40 CFR 60 Subpart Db	40 CFR 60 Subpart Db and Semiannually

B.9, B.25, B.34, B.42, B.43, B.44.	All Boilers	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD and Semiannually
B.10, B.23, B.36, B.43, B.44.	B-5 and B-6: NO_X	Must be equipped with Ultralow NO_X burners	Recordkeeping	On-going	Semiannually
B.11, B.24, B.26, B.27, B.30, B.31, B.32, B.37, B.38, B.43, B.44.	B-5 and B-6: NO_X	When fired on RFG, 0.03 lb/MMBtu on a rolling 365-day average or 24.05 ton/yr on a rolling 365-day average	CEMS	Ongoing	Quarterly (and 40 CFR 60 Subpart Db)
			Method 7 and 19	Every 5 years	Semiannually
B.12, B.24, B.30, B.31, B.37, B.38, B.43, B.44.	B-5 and B-6: CO	When fired on RFG, 0.04 lb/MMBtu on a rolling 365-day average	Method 10	Every 5 years	Semiannually
B.13, B.28, B.30, B.36, B.43, B.44.	B-5 and B-6: VOC	4.32 tons/rolling 12-calendar month	Emission Calculations	Semiannually	Semiannually
B.14, B.29, B.36, B.43, B.44.	Temporary Boiler	No more than 51 MMBtu/hr natural gas-fired boiler, operated no more than 8 weeks per rolling 12-month period.	Recordkeeping	Semiannually	Semiannually

Conditions

B.1. Phillips 66 shall not exceed 300 tons per year (ton/yr) SO_2 emissions from fuel oil combustion, based on a rolling 365-day average as determined by the existing SO_2 CEMS or replacement SO_2 CEMS subsequently installed and certified (ARM 17.8.749).

B.2. SO_2 emissions from the Main Boiler House Stack are limited to 321.4 pounds per hour (lb/hr) calculated on a rolling 24-hour average, 3.857 ton/day, and 1407.8 ton/yr (fuel oil and fuel gas combustion) (ARM 17.8.749, ARM 17.8.1211, ARM 17.8.340, and 40 CFR 60.105).

B.3. SO_2 emissions from the Main Boiler House Stack are limited to 964.2 pounds per 3-hour period, 7,713.6 pounds per calendar day, and 2,815,464 pounds per calendar year (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

B.4. Phillips 66 shall comply with all applicable requirements of 40 CFR 60, Subpart J-Standards of Performance for Petroleum Refineries, as it applies to fuel gas combustion devices as that term is defined in Subpart J. Each of the boilers at Phillips 66 are fuel gas combustion devices and each are considered "affected facilities" under 40 CFR 60, Subparts A and J (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart J).

B.5. H_2S content of fuel gas burned in boilers #B-5 and #B-6 shall not exceed 96 ppmv on a rolling 365-day average (ARM 17.8.749).

B.6. Phillips 66 shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the Main Boiler House Stack, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, except during times that the exhaust from only boilers B-5 and B-6 are being routed to the main boiler house stack, the opacity limit is 20% (ARM 17.8.304).

B.7. Phillips 66 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 MMBtu per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu (ARM 17.8.309).

B.8. Phillips 66 shall comply with all applicable requirements of 40 CFR 60, Subpart Db-Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Boilers B-5 and B-6 are subject to the Subpart Db requirements (ARM 17.8.340 and 40 CFR 60, Subpart Db).

B.9. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (ARM 17.8.342 and 40 CFR 63, Subpart DDDDD).

B.10. Phillips 66 shall equip boilers B-5 and B-6 with Ultra-Low NO_x Burners (ULNB) (ARM 17.8.752).

B.11. NO_x emissions from boilers B-5 and B-6 shall each, when fired on RFG, not exceed 0.03 pounds per million British thermal unit (lb/MMBtu) based on a rolling 365-day average, or 24.05 ton/yr based on a rolling 365-day average (ARM 17.8.752).

B.12. Carbon Monoxide (CO) emissions from boilers B-5 and B-6 shall each, when fired on RFG, not exceed 0.04 lb/MMBtu based on a rolling 365-day average (ARM 17.8.752).

B.13. Volatile organic compound (VOC) emissions from boilers B-5 and B-6 shall each not exceed 4.32 tons/rolling 12-calendar month total (ARM 17.8.752).

B.14. Phillips 66 shall operate a temporary natural gas-fired boiler for no more than 8 weeks per rolling 12-month period. The temporary boiler shall not exceed a firing rate of 51 MMBtu/hr, and shall only be used during refinery turnarounds (ARM 17.8.749).

Compliance Demonstration

B.15. Phillips 66 shall install and operate a SO_2 continuous emission monitor system (CEMS) and a volumetric flow rate monitor on the Main Boiler House Stack. SO_2 and volumetric flow rate monitors shall comply with all applicable provisions of 40 CFR Part 60, Appendix B,

Performance Specifications 2, 3, and 6 as appropriate and the quality assurance/quality control requirements of 40 CFR 60 Appendix F. Phillips 66 shall document fuel type and throughput to correlate CEMS emissions data with fuel type burned. CEMS data shall be utilized in demonstrating compliance with SO_2 emissions limitations of Section III.B.1, III.B.2, and III.B.3, as well as any other testing required by the Department (ARM 17.8.749 and ARM 17.8.1211, ARM 17.8.1212, and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

B.16. Phillips 66 shall conduct all monitoring and testing as required by 40 CFR 60, Subpart J, Standards of Performance for Petroleum Refineries, to monitor compliance with Section III.B.4 and III.B.5. Phillips 66 shall install, calibrate, maintain, and operate a H_2S CEMS to continuously monitor and record the concentration (dry basis) of H_2S in the RFG before being burned in any fuel gas combustion device, or develop an Alternate Monitoring Plan (AMP), as required by 40 CFR 60, Subparts A and J. Compliance with the fuel gas H_2S concentration limit set out in Section III.B.4 shall be monitored based on 3-hour rolling average H_2S concentrations, determined by utilizing data taken from the CEMS and other Department-approved sampling methods.

The H_2S CEMS shall be installed, certified, and operated in accordance with Performance Specification 7 (40 CFR 60, Appendix B) to meet applicable provisions of 40 CFR 60.105(a)(4), 60.7, and 60.13. The H_2S CEMS shall meet the quality assurance and quality control requirements set out in 40 CFR 60, Appendix F (annual Relative Accuracy Test Audits (RATAs)), as provided by the SO_2 Stipulation. The CEMS shall meet applicable quarterly data recovery rates and other provisions of §6(A) of the SO_2 Stipulation (ARM 17.8.340 and 40 CFR 60, Subpart J, ARM 17.8.749, ARM 17.8.1212, and ARM 17.8.1213).

B.17. Phillips 66 shall operate and maintain a continuous flow rate monitor on the RFG header. Accuracy determinations for the RFG flow rate monitor shall be required at least once every 48 months or more frequently as routine refinery turn-arounds allow (ARM 17.8.1212, Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

B.18. Compliance with the emission limitations, where applicable, shall be monitored by using data from the CEMS and other Department-approved sampling methods (ARM 17.8.1212 and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

a. The above does not relieve Phillips 66 from meeting any applicable requirements of 40 CFR Part 60, Appendices A and B, or other stack testing that may be required by the Department.

b. Other stack testing may include, but is not limited to, the following air pollutants: SO_2, NO_x, ammonia (NH_3), CO, particulate matter (PM), particulate matter less than 10 microns (PM_{10}), and VOCs.

c. Reporting requirements shall be consistent with 40 CFR Part 60, or as specified by the Department. CEMS data and calculations shall be submitted to the Department on a quarterly basis.

d. All gaseous (SO_2 and H_2S) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR Part 60, Appendix F. 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).

e. 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, and planned maintenance. In the event the primary CEM system is unable to meet minimum availability requirements, Phillips 66 shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be monitored. The Department shall approve such contingency plans.

B.19. Phillips 66 shall perform annual source testing for SO_2 using EPA-approved methods (40 CFR Part 60, Appendix A, Methods 1-4 and 6/6C as appropriate for the Stipulation (STIP) and Exhibit A) or an equivalent method approved by the Department and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106).

The annual RATAs required by Section 6(C) and (D) of the STIP may be substituted 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 ((ARM 17.8.749 and ARM 17.8.1211) and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

B.20. As required by the Department and Section III.A.1, Phillips 66 shall conduct, in accordance with Section III.A.2, a Method 9 Opacity test to monitor compliance with Section III.B.6 (ARM 17.8.1213).

B.21. As required by the Department and Section III.A.1, Phillips 66 shall conduct, in accordance with Section III.A.2, a Method 5 Particulate Matter test or other Department approved test to monitor compliance with Section III.B.7 (ARM 17.8.1213).

B.22. Phillips 66 shall meet, as applicable, the requirements of all testing and procedures of ARM 17.8.340, which reference 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (ARM 17.8.340 and 40 CFR 60, Subpart Db).

B.23. Phillips 66 shall maintain, on-site, documentation of the ULNB installed, and record any instance when boilers B-5 and B-6 are not operated with ULNB as required by Section III.B.10, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

B.24. Phillips 66 shall test boilers B-5 and B-6 for NO_X and CO, both pollutants concurrently, and monitor compliance with the NO_X and CO emission limits contained in Sections III.B.11 & III.B.12. The compliance source testing shall be conducted on an every 5-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and 17.8.749).

B.25. Phillips 66 shall monitor compliance with 40 CFR 63 Subpart DDDDD as required by 40 CFR 63, Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

B.26. Phillips 66 shall install and operate NO_x and oxygen (O_2) CEMS to monitor compliance with the emission limitations for boilers B-5 and B-6 (ARM 17.8.340 and 40 CFR 60, Subpart Db, and ARM 17.8.749).

B.27. NO_x 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 (40 CFR 60.13 and ARM 17.8.749).

B.28. Phillips 66 shall monitor compliance with the VOC limit for the boilers B-5 and B-6 listed in Section III.B.13 by maintaining records of the fuel gas consumed and using an emission factor, as approved by the Department (ARM 17.8.1213).

B.29. Phillips 66 shall monitor compliance with the temporary boiler requirements listed in Section III.B.14 by maintaining records of any instances when a temporary boiler is brought on-site. The records shall include the date, duration of use, status of facility operations, fuel, and firing rate of the temporary boiler (ARM 17.8.1213). Further, for every time a Temporary Boiler is brought onsite, Phillips 66 shall provide written notification to the Department of the initiation of operation within 15 days. The notification shall include the year of construction, and maximum natural gas firing rate (ARM 17.8.749).

Recordkeeping

B.30. 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.31. Recordkeeping compiled for purposes of monitoring compliance with emission limitations shall be retained by Phillips 66 for a minimum of 5 years from the date of record creation (ARM 17.8.1212).

B.32. CEMS data shall be recorded by a data collections system and shall be maintained under Phillips 66's control for at least 5 years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department upon request (ARM 17.8.1212).

B.33. Phillips 66 shall keep all records as required by 40 CFR 60, Subpart Db (ARM 17.8.340 and 40 CFR 60, Subpart Db).

B.34. Phillips 66 shall keep all records as required by 40 CFR 63, Subpart DDDDD (ARM 17.8.342 and 40 CFR 63, Subpart DDDDD).

B.35. Phillips 66 shall keep all applicable records as required by 40 CFR 60, Subpart J (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart J).

B.36. Phillips 66 shall maintain records as required in Section III.B.23, III.B.26, III.B.28, and III.B.29 for a minimum of 5 years from the date of record creation (ARM 17.8.1212).

Reporting

B.37. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

B.38. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

B.39. Phillips 66 shall report, on a quarterly basis, CEMS data within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena and the appropriate Regional Office from which the

Compliance Officer is based from. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report. The report shall include all data as required by the SIP (ARM 17.8.1212, Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

B.40. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart J (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60 Subpart J).

B.41. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart Db (ARM 17.8.340 and 40 CFR 60 Subpart Db).

B.42. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

B.43. 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.44. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. Any records created as required by Section III.B.23 during the reporting period, which shall include the date, duration, and circumstances of any instance when boilers B-5 or B-6 are not operated with ULNB, or statement that no record creation was required.

c. A summary of the general calculation methodology used to determine VOC emissions including the emissions factor used and supporting information for that emissions factor, reference to the Department's approval of the emissions factor, and the results of any VOC emissions calculations which indicate noncompliance.

d. Temporary boiler records created during the reporting period which shall include the information required by Section III.B.29, or statement that no records were required due to the absence of a temporary boiler onsite.

e. Reference to dates that quarterly CEMS reports were submitted.

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

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

h. Summary of compliance with the reporting requirements of 40 CFR 63 Subpart DDDDD during the semi-annual period. This reporting requirement does not

require the permittee to submit any 40 CFR 63 Subpart DDDDD required compliance report or compliance status determination earlier than is required by 40 CFR 63 Subpart DDDDD.

C. EU002: FCCU

FCCU Regenerator

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
C.1, C.12, C.23, C.29, C.31, C.32.	FCCU	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J and Semiannually
C.2, C.13, C.24, C.30, C.31, C.32.	FCCU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU and Semiannually
C.3, C.4, C.5, C.6, C.14, C.16, C.17, C.20, C.21, C.22, C.25, C.26, C.27, C.28, C.31, C.32.	FCCU: SO_2	48.86 ton/yr 3.945 ton/day 328.8 lb/hr on a rolling 24-hour average basis	CEMS	Ongoing	Quarterly
			Method 6/6C (RATA may substitute)	Annually	Semiannually
		986.4 lb/3-hr 7,891.2 lb/cal. day 2,880,288 lb/cal. yr	CEMS	Ongoing	Quarterly
			Method 6/6C (RATA may substitute)	Annually	Semiannually
		25 ppmvd @ 0% O_2 rolling 365-day average 50 ppmvd @ 0% O_2 rolling 7-day average	CEMS	Ongoing	Quarterly
			Method 6/6C (RATA may substitute)	Annually	Semiannually
		20 lb/ton coke burnoff or fresh feed total sulfur <0.30 wt% on a 7-day rolling average basis	CEMS	Ongoing	Quarterly
			Method 6/6C (RATA may substitute)	Annually	
		Alternate Operating Scenario	Title V Appendix G	Ongoing	
C.7, C.8, C.14, C.16, C.18, C.20, C.21, C.22, C.25, C.26, C.31, C.32.	FCCU: CO	150 ppmvd @ 0% O_2/rolling 365-day average	CEMS	Ongoing	Semiannually
		500 ppmvd @ 0% O_2 one-hour average	Method 10 (RATA may substitute)	Annually	
C.9, C.15, C.16, C.20, C.21, C.22, C.25,C.26, C.31, C.32.	FCCU: NO_X	49.2 ppmvd @ 0% O_2 365-day rolling average; and 69.5 ppmvd @ 0% O_2 7-day rolling average	CEMS	Ongoing	Quarterly
			Method 7E (RATA may substitute)	Annually	
C.10, C.14,	FCCU:	30% except for one six-	COMS	Ongoing	Semiannually

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
C.16, C.20, C.21, C.22, C.25, C.26, C.31, C.32.	Opacity	minute average in any one hour period.	Method 9	As required by the Department and Section III.A.1	
C.11, C.19, C.20, C.21, C.25, C.26, C.31, C.32.	FCCU: PM	1 lb/1000 lb coke burned	Source Testing	Annually, unless otherwise authorized	Semiannually

Conditions

C.1. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart J-Standards of Performance for Petroleum Refineries. The FCCU is subject to the Subpart J requirements for opacity, PM, CO, and SO_2 (ARM 17.8.749; ARM 17.8.340; and 40 CFR 60 Subpart J).

C.2. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units. The FCCU is subject to the Subpart UUU requirements including the requirement to prepare an Operation, Maintenance, and Monitoring Plan (OMMP) according to the requirements in 40 CFR 63.1574 and operate at all times according to the procedures in the plan (ARM 17.8.342; and 40 CFR 63 Subpart UUU).

C.3. SO_2 emissions from the FCCU are limited to 48.86 ton/yr, 3.945 ton/day, and 328.8 lb/hr calculated on a rolling 24-hour average (ARM 17.8.749).

C.4. SO_2 emissions from the FCCU are limited to 986.4 pounds per 3-hour period, 7,891.2 pounds per calendar day, and 2,880,288 pounds per calendar year (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

C.5. SO_2 emissions from the FCCU shall not exceed 25 ppmvd at 0% O_2 based on a rolling 365-day average, as well as 50 ppmvd at 0% O_2 based on a rolling 7-day average. SO_2 emission data during startup, shutdown or malfunction of the FCCU or during periods of malfunction of a control system or pollutant reducing catalyst additive system will not be used in determining compliance with the 7-day SO_2 emission limit, provided that Phillips 66 implements good air pollution control practices to minimize SO_2 emissions. The 7-day SO_2 emission limit shall not apply during periods of hydrotreater outages provided that Phillips 66 is maintaining and operating the FCCU (including associated air pollution control equipment) in a manner consistent with good air pollution control practices for minimizing emissions in accordance with the EPA-approved Hydrotreater Outage Plan (see Appendix G). In those instances where Phillips 66 chooses (as allowed per the Plan provisions) to exclude the Hydrotreater Outage period from the 7-day SO_2 emission limit, it must demonstrate compliance with the applicable requirements of the Plan in the post-outage report required pursuant to the Plan. Hydrotreater outage shall mean the period of time during which the operation of an FCCU is affected as a result of catalyst change-out operations or shutdowns required by American Society of Mechanical Engineers (ASME) pressure vessel requirements or state boiler codes, or as a result of malfunction that prevents the hydrotreater from effectively producing the quantity and quality of feed necessary to

achieve established FCCU emission performance. For days in which the FCCU is not operating, no SO_2 value shall be used in the average, and those periods shall be skipped in determining the 7-day and 365-day averages (ARM 17.8.749).

C.6. SO_2 emissions from the FCCU shall not exceed 9.8 kilograms per Megagram (kg/Mg, or 20 lb/ton) coke burnoff on a 7-day rolling average basis, in accordance with 40 CFR 60.104(b)(2) and (c). As an alternative, Phillips 66 shall process in the FCCU fresh feed that has a total sulfur content no greater than 0.30 percent by weight on a 7-day rolling average basis, in accordance with 40 CFR 60.104(b)(3) and (c) (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart J).

C.7. CO emissions from the FCCU shall not exceed 150 ppmvd at 0% O_2 based on a rolling 365-day average basis (ARM 17.8.749).

C.8. CO emissions from the FCCU shall not exceed 500 ppmvd at 0% O_2 based on a one-hour average (40 CFR 60 Subpart J and ARM 17.8.749). CO emissions during periods of startup, shutdown or malfunctions of the FCCU will not be used for determining compliance with this emission limit, provided that Phillips 66 implements good air pollution control practices to minimize CO emissions (ARM 17.8.749).

C.9. NO_x emissions shall not exceed 49.2 ppmvd corrected to 0% O_2, on a rolling 365-day average and 69.5 ppmvd, corrected to 0% O_2, on a rolling 7-day average. NO_X emission data during startup, shutdown, or malfunction of the FCCU or during periods of malfunction of a control system or pollutant reducing catalyst additive system will not be used in determining compliance with the 7-day NO_x emission limit, provided that Phillips 66 implements good air pollution control practices to minimize NO_X emissions. The 7-day NO_X emission limit shall not apply during periods of hydrotreater outages provided that Phillips 66 is maintaining and operating the FCCU (including associated air pollution control equipment) in a manner consistent with good air pollution control practices for minimizing emissions in accordance with the EPA-approved Hydrotreater Outage Plan (See Appendix G). In those instances where Phillips 66 chooses (as allowed per the Plan provisions) to exclude the Hydrotreater Outage period from the 7-day NO_X emission limit, it must demonstrate compliance with the applicable requirements of the Plan in the post-outage report required pursuant to the Plan. Hydrotreater outage shall mean the period of time during which the operation of an FCCU is affected as a result of catalyst change-out operations or shutdowns required by ASME pressure vessel requirements or state boiler codes, or as a result of malfunction that prevents the hydrotreater from effectively producing the quantity and quality of feed necessary to achieve established FCCU emission performance. For days 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 the 7-day and 365-day averages (ARM 17.8.749).

C.10. Phillips 66 shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the FCCU that exceed an opacity of 30% except for one 6-minute average in any one hour period (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60, Subpart J).

C.11. Phillips 66 shall not cause or authorize the FCCU to exceed the PM limit of 1.0 lb PM/1000 lb coke burned (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60, Subpart J).

Compliance Demonstration

C.12. Phillips 66 shall meet, as applicable, the requirements of all testing and procedures of ARM 17.8.340, which reference 40 CFR 60 Subpart J, Standards of Performance for Petroleum Refineries (ARM 17.8.749; ARM 17.8.340; and 40 CFR 60, Subpart J).

C.13. Phillips 66 shall meet, as applicable, the requirements of all testing and procedures of ARM 17.8.342, which reference 40 CFR 63 Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, including maintaining records to document conformance with procedures in Phillips 66's required OMMP (ARM 17.8.742 and 40 CFR 63, Subpart UUU).

C.14. The FCCU stack must be equipped and operated with CEMS and Continuous Opacity Monitoring System (COMS) to measure SO_2, CO, O_2, volumetric flow, and opacity. The monitoring system shall meet all performance specifications, methods, and procedures. The CEMS and COMS shall meet the performance specifications in 40 CFR 60, including 40 CFR 60.11, 60.13, Appendix A, Appendix B (including Performance Specification 1, 2, 3, 4/4A/4B, and 6), and the quality assurance/quality control requirements of 40 CFR 60, Appendix F (ARM 17.8.749, ARM 17.8.1211, ARM 17.8.103(d) and 40 CFR 51, Appendix P, and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

C.15. The FCCU stack must be equipped and operated with CEMS to measure NO_X. Emission monitoring shall be subject to 40 CFR 60, including 40 CFR 60.11, 40 CFR 60.13, Appendix A, Appendix B (Performance Specifications 2 and 3) and Appendix F (Quality Assurance/Quality Control) provisions (ARM 17.8.749 and ARM 17.8.1211).

C.16. Compliance with the emission limitations contained in Section III.C.3, III.C.4, III.C.5, III.C.6, III.C.7, III.C.8, III.C.9, and III.C.10 shall be monitored using data from the CEMS, COMS, and other Department-approved sampling methods (ARM 17.8.749 and ARM 17.8.1211).

a. The above does not relieve Phillips 66 from meeting any applicable requirements of 40 CFR 60, Appendices A and B, or other stack testing that may be required by the Department.

b. Opacity compliance may also be monitored, via EPA reference Method 9, by a certified observer or monitor.

c. Other stack testing may include, but is not limited to, the following air pollutants: SO_2, NO_x, NH_3, CO, PM, PM_{10}, and VOCs.

d. Reporting requirements shall be consistent with 40 CFR Part 60, or as specified by the Department. SO_2 CEMS data shall be submitted to the Department on a quarterly basis.

e. All gaseous (SO_2 and CO) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR Part 60, Appendix F. SO_2 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).

f. 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. In the event the primary CEM system is unable to meet minimum availability requirements, Phillips 66 shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be monitored. The Department shall approve such contingency plans.

g. In the case of GOHDS outages, as described in Section III.C.5 and III.C.9, Phillips 66 shall maintain records of actions taken by Phillips 66 to conform to the GOHDS Outage Plan (see Appendix G of this permit).

C.17. Phillips 66 shall perform annual source testing for SO_2 from the FCCU stack using EPA-approved methods (40 CFR Part 60, Appendix A, Methods 1-4 and 6/6C as appropriate for the Stipulation (STIP) and Exhibit A) or an equivalent method approved by the Department and EPA, and in accordance with Section III.A.1 of this permit (ARM 17.8.106).

The annual RATAs required by Section 6(C) and (D) of the STIP may be substituted for the annual source tests, provided that the flow rate RATA and the concentration RATA are performed simultaneously or concurrently and additional calculations are made to determine and report the data in lb/hr of SO_2 (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

C.18. In accordance with Section III.A.1 and as required by the Department, Phillips 66 shall perform Method 10 or other Department approved testing, to monitor compliance with CO limitations in Section III.C.8. The annual RATA may be substituted for the required source test (ARM 17.8.1213).

C.19. Phillips 66 shall conduct a PM stack test utilizing test methods as approved by the Department at least annually, or as otherwise approved in writing by the Department (ARM 17.8.1213, ARM 17.8.749).

Recordkeeping

C.20. 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.21. Recordkeeping compiled for purposes of monitoring compliance with emission limits shall be retained by Phillips 66 for a minimum of 5-years from the date of record creation (ARM 17.8.1212).

C.22. CEMS data shall be recorded by a data collections system and shall be maintained under Phillips 66's control for at least 5-years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department upon request (ARM 17.8.1212).

C.23. Phillips 66 shall keep all records as required by 40 CFR 60, Subpart J (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart J).

C.24. Phillips 66 shall keep all records as required by 40 CFR 63, Subpart UUU (ARM 17.8.342 and 40 CFR 63, Subpart UUU).

Reporting

C.25. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

C.26. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

C.27. Phillips 66 shall submit quarterly monitoring reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's office in Helena and the appropriate Regional Office from which the Compliance Officer is based from. The quarterly report format shall consist of both a comprehensive electronic-magnetic report and a written or hard copy data summary report. The report shall include all data as required by the SIP (ARM 17.8.1212 and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

C.28. Phillips 66 shall report quarterly, the maximum daily NO_X rolling 365-day average and the maximum NO_X 7-day rolling average per quarter for the FCCU stack. These reports shall also include NO_X CEMS quarterly performance (excess emissions and monitor downtime) and Appendix F (Quality Assurance and Quality Control) provisions. FCCU quarterly NO_X reporting shall be submitted in conjunction with the SO_2 SIP emissions and CEMS/CERMS reporting periods (ARM 17.8.1212).

C.29. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart J (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart J).

C.30. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

C.31. 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.32. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. Dates that the quarterly CEMS reports were submitted.

c. A summary of CEMS data not reported quarterly, to include report of average and maximum values based on the averaging period of the limit and report of monitoring downtime during the reporting period.

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

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

D. EU003: Refinery Fuel Gas Combustion Units

Operating Scenario 1: Before Startup of Vacuum Improvement Project

"22-Fuel-Gas-Heater Source": This is the group of heaters identified in the Board Order (State Implementation Plan for SO_2 in Yellowstone County – June 1998) which included the heaters identified as H-1, H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-23, H-24, Coker Heater: H-3901, Recycle Hydrogen Heater: H-8401, Fractionator Heater: H-8402

Additional Refinery Fuel Gas combustion sources:
No. 1 H_2 Unit Reformer Heater: H-9401,
No. 5 HDS Recycle (Charge Heater): H-9501,
No. 5 HDS Fractionator (Stabilizer) Reboiler: H-9502, and
No. 2 H_2 Unit Reformer Heater: H-9701

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.1, D.20, D.34, D.38, D.48, D.49.	Fuel combustion	No fuel oil combusted	Recordkeeping	Ongoing	Semiannual
D.2, D.21, D.35, D.38, D.48, D.49.	Amine chemical absorption system	Operation	Recordkeeping	Ongoing	Semiannual
D.3, D.4, D.22, D.23, D.24, D.25, D.26, D.36, D.39, D.42, D.43, D.44, D.45, D.48, D.49.	SO_2	"22-Fuel-Gas-Heater Source": 45.5 ton/yr, 614 lb/day	Method 6/6C (RATA may substitute)	Annual RATA and as required by the Department and Section III.A.1	Semiannual
			CEMS	Ongoing	Quarterly
		All Process Heaters Combined: 87.0 lb/3-hr 696.0 lb/calendar Day 254,040 lb/Calendar year	Method 6/6C (RATA may substitute)	Annual RATA and as required by the Department and Section III.A.1	Semiannual
			CEMS	Ongoing	Quarterly
D.5, D.23, D.26, D.40, D.48, D.49.	Refinery Fuel Gas	40 CFR 60, Subpart J	40 CFR 60, Subpart J	40 CFR 60, Subpart J	40 CFR 60 Subpart J and Semiannual
D.6, D.23, D.26, D.27, D.36, D.39, D.42-D.49	H_2S	0.10 grains/dscf on a rolling 3-hour basis	Method 11 (RATA may substitute)	Annually	Semiannual
			CEMS	Ongoing	Quarterly

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.7, D.23, D.26, D.27, D.36, D.39, D.42, D.43, D.44, D.45, D.48, D.49.	H_2S - specific process heaters	0.073 gr/dscf (116.5 ppmv H_2S) per rolling 12-months	Method 11 (RATA may substitute)	Annually	Semiannual
			CEMS	Ongoing	Quarterly
D.8, D.23, D.26, D.27, D.36, D.42, D.43, D.48, D.49.	PSA purge gas	Sulfur free purge gas	Method 11	As required by the Department and Section III.A.1	Semiannual
D.9, D.28, D.36, D.42, D.43, D.48, D.49.	NO_X – Coker Heater	0.08 lb/MMBtu 7.38 lb/hr	Method 7	As required by the Department and Section III.A.1	Semiannual
			Low NO_X burners	Ongoing	
	NO_X – Other Furnaces	0.03 lb/MMBtu	Method 7	As required by the Department and Section III.A.1	
			ULNB or Low NO_X burners w /FGR	Ongoing	
D.10, D.28, D.36, D.42, D.43, D.48, D.49.	Total NO_X – - Coker Heater, - Recycle Hydrogen Heater, - Fractionator Feed Heater and - No. 1 H_2 Unit Reformer Heater	13.54 lb/hr, 58.95 ton/yr	Method 7	As required by the Department and Section III.A.1	
			Ultra-Low and Low NO_X burners	Ongoing	
D.11, D.28, D.36, D.42, D.43, D.48, D.49.	Total NO_X – - No.5 HDS Charge Heater, - No.5 HDS Stabilizer Reboiler Heater, and - No.2 H_2 Unit Reformer Heater	7.95 lb/hr, 34.19 ton/yr	Method 7	As required by the Department and Section III.A.1	
			Ultra-Low and Low NO_X burners	Ongoing	
D.12, D.13, D.14, D.29, D.37, D.38, D.48, D.49.	NO_X Control	Low NO_X burners, Ultra-low NO_X burners, and FGR	Recordkeeping	Monthly inspections and any maintenance	

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.15, D.30, D.36, D.42, D.43, D.48, D.49.	CO – - No.2 H_2 Unit Reformer Heater, - No.5 HDS Stabilizer Reboiler Heater, and - No.5 HDS Charge Heater	Various	Method 10	As required by the Department and Section III.A.1	
D.16, D.17, D.31, D.36, D.42, D.43, D.48, D.49.	Opacity	40% / 20%	Method 9	As required by the Department and Section III.A.1	Semiannual
D.18, D.32, D.36, D.42, D.43, D.48, D.49.	Particulate Matter, Fuel Burning	$E= 0.882*H^{-0.1664}$ Or $E= 1.026*H^{-0.233}$	Source Testing as approved by the Department		
D.19, D.41, D.47, D.48, D.49,	All Process Heaters	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannual and 40 CFR 63 Subpart DDDDD

Conditions

D.1. Phillips 66 shall not burn fuel oil in any of its heaters (ARM 17.8.749).

D.2. Phillips 66 shall operate and maintain an amine-based chemical absorption system on the refinery fuel gas system (ARM 17.8.752 and ARM 17.8.819).

D.3. Phillips 66 may not cause or authorize SO_2 emissions from the "22-Fuel-Gas-Heater" source in excess of 614 lb/day on a rolling 24-hour average or 45.5 ton/year on a rolling 12-month average (ARM 17.8.749 and ARM 17.8.1211).

D.4. Combined emissions of SO_2 for the process heaters shall not exceed 87.0 pounds per 3-hour period, 696.0 pounds per calendar day, and 254,040 pounds per calendar year (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.5. Phillips 66 shall comply with all applicable requirements of 40 CFR 60, Subpart J-Standards of Performance for Petroleum Refineries, as it applies to fuel gas combustion devices. All process heaters used to combust RFG at Phillips 66 are fuel gas combustion devices and are considered "affected facilities" under 40 CFR 60, Subparts A and J (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart J).

D.6. H_2S content of fuel gas burned shall not exceed 0.10 gr/dscf, rolling 3-hr average (ARM 17.8.749, ARM 17.8.1211, and ARM 17.8.340, 40 CFR 60 Subpart J).

D.7. H_2S content of fuel gas shall not exceed 0.073 gr/dscf (116.5 ppmv H_2S) per rolling 12-month time period, for fuel gas burned in (ARM 17.8.749):

a. H-10, No. 2 HDS
b. H-11, Debutanizer Reboiler, No. 2 HDS
c. H-12, Main Frac. Reboiler No. 2 HDS
d. H-13, Catalytic Reforming Unit #2
e. H-14, Catalytic Reforming Unit #2
f. H-16, Stabilizer Reboiler, Sat Gas
g. H-23, Catalytic Reforming Unit #2
h. H-9401, No. 1 H_2 Unit Reformer Heater
i. H-9701, No. 2 H_2 Unit Reformer Heater
j. H-9501, No .5 HDS Charge Heater
k. H-9502, No. 5 HDS Stabilizer Reboiler Heater

D.8. The Pressure Swing Adsorption (PSA) purge gas, used as furnace fuel for the No. 2 H_2 Unit Reformer Heater (H-9701), shall be sulfur free (ARM 17.8.752 and ARM 17.8.1211).

D.9. NO_x emissions shall not exceed the limit of (ARM 17.8.752 and ARM 17.8.1211):

a. Coker Heater (H-3901)- 0.08 lb/MMBtu and 7.38 lb/hr
b. Recycle Hydrogen Heater (H-8401) - 0.03 lb/MMBtu
c. Fractionator Feed Heater (H-8402) - 0.03 lb/MMBtu
d. No. 1 H_2 Unit Reformer Heater (H-9401) - 0.03 lb/MMBtu
e. No. 2 H_2 Unit Reformer Heater (H-9701) – 0.03 lb/MMBtu per rolling 12-month
f. No. 5 HDS Charge Heater (H-9501) – 0.03 lb/MMBtu per rolling 12-month
g. No. 5 HDS Stabilizer Reboiler Heater (H-9502) – 0.03 lb/MMBtu per rolling 12-month

D.10. The total NO_x emissions from the Coker Heater (H-3901), Recycle Hydrogen Heater (H-8401), Fractionator Feed Heater (H-8402), and No. 1 H_2 Unit Reformer Heater (H-9401) shall not exceed the limit of 13.54 lb/hr and 58.95 ton/yr (ARM 17.8.749, ARM 17.8.752, and ARM 17.8.1211).

D.11. The total NO_x emissions from the No. 5 HDS Charge Heater (H-9501), the No. 5 HDS Stabilizer Reboiler Heater (H-9502), and the No. 2 H_2 Unit Reformer Heater (H-9701) shall not exceed 7.95 lb/hr and 34.19 tons/year (ARM 17.8.752 and ARM 17.8.1211).

D.12. Phillips 66 shall equip and maintain low NO_x burners on the Coker Heater (H-3901) (ARM 17.8.749 and ARM 17.8.1211).

D.13. Phillips 66 shall equip and maintain ULNB on the Recycle Hydrogen Heater (H-8401), Fractionator Feed Heater (H-8402), No. 5 HDS Charge Heater (H-9501), No. 5 HDS Stabilizer (Fractionator) Reboiler Heater (H-9502), and No. 2 H_2 Plant Reformer Heater (H-9701) (ARM 17.8.749, ARM 17.8.752, and ARM 17.8.1211).

D.14. Phillips 66 shall equip and maintain low NO_x burners and Flue Gas Recirculation (FGR) on the No. 1 H_2 Plant Heater (H-9401) (ARM 17.8.749 and ARM 17.8.1211).

D.15. CO emissions shall not exceed the limit of (ARM 17.8.752 and ARM 17.8.1211):

a. No. 2 H_2 Unit Reformer Heater (H-9701) – 0.025 lb/MMBtu based on a rolling 12-month time period

b. No. 5 HDS Charge Heater (H-9501) – 0.317 lb/MMBtu per rolling 12-month when heater is operating at 10.9 MMBtu/hr or less, and 0.1585 lb/MMBtu per rolling 12-month when heater is operating at 10.9 MMBtu/hr or more

c. No. 5 HDS Stabilizer Reboiler Heater (H-9502) – 0.1585 lb/MMBtu per rolling 12-month when heater is operating at 29.9 MMBtu/hr or less and 0.091 lb/MMBtu per rolling 12-month when heater is operating at 29.9 MMBtu/hr or more

D.16. Opacity from any of the RFG Heaters/Furnaces constructed prior to 1968 (including but not limited to H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-23, H-24) shall not exceed 40% averaged over any 6 consecutive minutes (ARM 17.8.304(1)).

D.17. Opacity from any of the RFG Heaters/Furnaces constructed after 1968 (including but not limited to H-1, No. 5 HDS Charge Heater, No. 5 HDS Stabilizer Reboiler Heater, No. 2 H_2 Unit Reformer Heater, Coker Heater, Recycle Hydrogen Heater, Fractionator Feed Heater, and Hydrogen Plant Heater), shall not exceed 20% averaged over any 6 consecutive minutes (ARM 17.8.304(2)).

D.18. Phillips 66 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 MMBtu per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu (ARM 17.8.309).

D.19. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

Compliance Demonstration

D.20. Phillips 66 shall record any instance in which fuel oil was combusted in any of the Process Heaters for the period, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

D.21. Phillips 66 shall document any time the amine-based chemical absorption system on the refinery fuel gas system is not operating (ARM 17.8.1213).

D.22. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 6/6C or other Department approved test methods, to monitor compliance with the SO_2 limitations in Section III.D.3 and III.D.4 (ARM 17.8.1213).

D.23. Phillips 66 shall conduct all monitoring and testing as required by 40 CFR 60, Subpart J, Standards of Performance for Petroleum Refineries, to monitor compliance with Section III.D.3, III.D.4, III.D.5, IIII.D.6, III.D.7, and III.D.8. Phillips 66 shall install, calibrate, maintain, and operate an H_2S CEMS to continuously monitor and record the concentration (dry basis) of H_2S in the RFG before being burned in any fuel gas combustion device, or develop an Alternate Monitoring Plan (AMP), as required by 40 CFR 60, Subparts A and J. Compliance with the fuel gas H_2S concentration limits shall be monitored based on 3-hour rolling average H_2S concentrations, determined by utilizing data taken from the CEMS and other Department-approved sampling methods.

The H_2S CEMS shall be installed, certified, and operated in accordance with Performance Specification 7 (40 CFR 60, Appendix B) to meet applicable provisions of 40 CFR 60.105(a)(4), 60.7, and 60.13. The H_2S CEMS shall meet the quality assurance and quality control requirements set out in 40 CFR 60, Appendix F (annual RATA), as provided by the SO_2 Stipulation. The CEMS shall meet applicable quarterly data recovery rates and other provisions of §6(A) of the SO_2 Stipulation (ARM 17.8.340 and 40 CFR 60 Subpart J; ARM 17.8.749; Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002, ARM 17.8.1212, and ARM 17.8.1213).

D.24. Phillips 66 shall operate and maintain a continuous flow rate monitor on the RFG header. Accuracy determinations for the RFG flow rate monitor shall be required at least once every 48 months or more frequently as routine refinery turn-arounds allow (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.25. Compliance with the SO_2 emission limitation for the RFG fired units, contained in Section III.D.3 and III.D.4, shall be monitored by using hourly average H_2S concentration and hourly average fuel gas flow rate data from the CEMS and in accordance with the appropriate equations contained in the SIP (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.26. Compliance with Section III.D.3, III.D.4, III.D.5, III.D.6, III.D.7, and III.D.8 shall be monitored by utilizing valid data taken from CEMS and other Department approved sampling methods (ARM 17.8.749 and ARM 17.8.1211).

a. The above does not relieve Phillips 66 from meeting any applicable requirements of 40 CFR Part 60, Appendices A and B, or other stack testing that may be required by the Department.

b. Other stack testing may include, but is not limited to, the following air pollutants: SO_2, NO_x, NH_3, CO, particulate matter (PM, PM_{10}), and VOCs.

c. Reporting requirements shall be consistent with 40 CFR Part 60, or as specified by the Department.

d. All gaseous (SO_2 and H_2S) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR Part 60, Appendix F. 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).

e. 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.

In the event the primary CEM system is unable to meet minimum availability requirements, Phillips 66 shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be monitored. The Department shall approve such contingency plans.

D.27. In order to accurately determine the H_2S concentration in parts per million for the fuel gas-system, Phillips 66 shall perform annual source testing using EPA-approved methods(40 CFR Part 60, Appendix A, Method 11) or an equivalent method approved by the Department and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106, Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.28. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 7 or other Department approved test methods to monitor compliance with the NO_x emission limitations in Section III.D.9, III.D.10, and III.D.11 (ARM 17.8.1213).

D.29. Compliance with Sections III.D.12, III.D.13, and III.D.14 shall be monitored by monthly inspection of the FGR, Ultra Low and Low NO_x burners to confirm they are properly installed and operating on the fuel gas combustion units (ARM 17.8.1213).

D.30. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 10 or other Department approved test methods, to monitor compliance with the CO limitation in Section III.D.15 (ARM 17.8.1213).

D.31. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 9 to monitor compliance with Section III.D.16 and III.D.17 (ARM 17.8.1213).

D.32. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Methods as approved by the Department, as well as record fuel throughput as needed, to monitor compliance with Section III.D.18 (ARM 17.8.749 and ARM 17.8.1213).

D.33. Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

Recordkeeping

D.34. Phillips 66 shall maintain, under Phillips 66's control, a record of fuel oil consumption as required in Section III.D.20 (ARM 17.8.1212).

D.35. Phillips 66 shall maintain, under Phillips 66's control, the amine treater operational records required by Section III.D.21 (ARM 17.8.1212).

D.36. All source testing recordkeeping shall be performed in accordance with the appropriate test method being used and Section III.A.2 (ARM 17.8.106).

D.37. Phillips 66 shall maintain, under Phillips 66's control, a record of monthly inspection and any maintenance performed on the Ultra-Low and Low NO_x burners (ARM 17.8.1212).

D.38. Phillips 66 shall maintain, under Phillips 66's control, all records required for monitoring compliance, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

D.39. CEMS data shall be recorded by a data collections system and shall be maintained under Phillips 66's control for at least 5-years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department upon request (ARM 17.8.1212).

D.40. Phillips 66 shall keep all records as required by 40 CFR 60 Subpart J (ARM 17.8.340 and 40 CFR 60 Subpart J).

D.41. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 63 Subpart DDDDD as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

Reporting

D.42. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

D.43. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

D.44. In accordance with Section 7 of the Stipulation, Phillips 66 shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena and the appropriate Regional Office from which the Compliance Officer is based from. 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 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.45. Phillips 66 shall provide quarterly emission reports from SO_2 related monitors. Emission reporting for SO_2 from all point source locations shall consist of 24-hour calendar day totals per calendar month. The quarterly SO_2 emission report shall also include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating times during the reporting period.

b. Monitoring down time which occurred during the reporting period.

c. A summary of excess emissions for each pollutant and averaging period identified in Section III.D.3, III.D.4, III.D.5, III.D.6, and III.D.7.

d. Reasons for any emissions in excess of those specifically allowed with mitigation measures utilized and corrective actions taken to prevent a recurrence of the upset condition.

D.46. Phillips 66 shall submit quarterly emission reports within 30 days of the end of each calendar quarter.

D.47. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart DDDDD as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.48. 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.49. The semiannual reporting shall provide (ARM 17.8.1212):

a. A summary of the fuel oil combustion records during the reporting period, which shall include the date, duration, circumstance, and operators initials of anytime fuel oil is burned, or statement that no fuel oil was burned during the reporting period.

b. A summary of the amine treater operations records created during the reporting period, or statement that no records creation was required.

c. A summary of results of any source testing that was required and submitted to the Department during the reporting period, which shall include the date the source test report was submitted to the Department, and the results of the source tests.

d. Dates of the monthly inspections and brief summary of any maintenance performed on the Ultra-Low and Low NO_x burners during the reporting period as described in Section III.D.29.

e. Dates that quarterly reports of SO_2 CEMS data were submitted.

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

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

<u>Operating Scenario 2: Beginning at Vacuum Improvement Project Startup</u>

"22 Fuel Gas Heater Source" includes the original combined fuel gas heater limitation made by Board Order (State Implementation Plan for SO_2 in Yellowstone County – June 1998) which included the heaters identified as H-1, H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-23, H-24; Coker Heater: H-3901, Recycle Hydrogen Heater: H-8401, and Fractionator Heater: H-8402.

"Combined Fuel Gas Heater Limitation": includes the original combined fuel gas heater limitation made by Board Order (State Implementation Plan for SO_2 in Yellowstone County –

June 1998) which included the heaters identified as H-1, H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-23, H-24; Coker Heater: H-3901, Recycle Hydrogen Heater: H-8401, and Fractionator Heater: H-8402. MAQP #2619-32 for the Vacuum Improvement Project added H-9401 and H-9701 to this combined limitation, and clarified that H-1, H-24, and H-17 remains applicable to the limitation after modification.

Additional Refinery Fuel Gas combustion sources:

No. 5 HDS Recycle (Charge Heater): H-9501, and
No. 5 HDS Fractionator (Stabilizer) Reboiler: H-9502

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.50; D.83, D.107, D.112, D.117, D.118, D.119, D.122, D.124	H_2S Content of Fuel in the Small Crude Unit Heater H-1, Large Crude Unit Heater H-24, and Vacuum Furnace H-17	50 ppmv – determined daily on a 365 day rolling average basis 162 ppmv – determined hourly on a 3-hour rolling average basis	Fuel Gas Monitoring Methodologies described in 40 CFR 60 Subpart Ja	Fuel Gas Monitoring Methodologies described in 40 CFR 60 Subpart Ja	Semiannual
D.51, D.84, D.85, D.110, D.112, D.118, D.123, D.124	Small Crude Unit Heater H-1 NO_X	0.030 lb/MMBtu	Source Testing	Within 180 days of startup and as required by the Department	Semiannual and Section III.A.2
D.52, D.84, D.87, D.107, D.110, D.112, D.114, D.117, D.118, D.122, D.124	Large Crude Unit Heater H-24 NO_X	0.040 lb/MMBtu	CEMS	Ongoing	Semiannual and 40 CFR 60 Subpart Ja
D.53, D.84, D.87, D.107, D.110, D.112, D.114, D.117, D.118, D.122, D.124	New Vacuum Furnace H-17 NO_X	0.030 lb/MMBtu	CEMS	Ongoing	Semiannual and 40 CFR 60 Subpart Ja
D.54, D.88, D.112, D.122, D.124	Opacity from Small Crude Unit Heater H-1, Large Crude Unit Heater H-24, and New Vacuum Furnace H-17	10%	Visual Survey	Within 180 days of startup and as required by the Department	Semiannual and Section III.A.2
D.55, D.65, D.89, D.113, D.122, D.123, D.124	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannual and 40 CFR 63 Subpart DDDDD

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.56, D.90, D.112, D.123, D.124	No. 1 H_2 Unit Reformer Heater H-9401	Fuel limited to natural gas, PSA off-gas, and/or cryo off-gas	Recordkeeping	Ongoing	Semiannual
D.57, D.84, D.86, D.90, D.110, D.112, D.118, D.123, D.124	No. 1 H_2 Unit Reformer Heater H-9401 NO_X	0.030 lb/MMBtu	Source Testing	Within 180 days of startup and as required by the Department	Semiannual and Section III.A.2
D.58, D.91, D.112, D.123, D.124	Existing Vacuum Furnace to be made inoperable	Made inoperable and/or removed from site	Notification and Recordkeeping	Within 10 days	Semiannually
D.59, D.92, D.108 D.112, D.123, D.124	Fuel combustion	No fuel oil combusted	Recordkeeping	Ongoing	Semiannually
D.60, D.93, D.109, D.112, D.123, D.124	Amine chemical absorption system	Operation	Recordkeeping	Ongoing	Semiannually
D.61, D.62, D.95, D.96, D.97, D.98, D.99, D.110, D.112 D.114, D.115, D.118, D.119, D.120, D.121, D.123, D.124	SO_2	22-Fuel-Gas-Heater Source: 45.5 ton/yr, 614 lb/day	Method 6/6C (RATA may substitute)	Annual RATA and as required by the Department and Section III.A.1	Semiannually
			CEMS	Ongoing	Quarterly
		Combined Fuel Gas Heater Limitation:: 87.0 lb/3-hr 696.0 lb/calendar Day 254,040 lb/Calendar year	Method 6/6C (RATA may substitute)	Annual RATA and as required by the Department and Section III.A.1	Semiannually
			CEMS	Ongoing	Quarterly
D.63, D.105, D.115, D.123, D.124	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	40 CFR 60 Subpart J	Semiannually and 40 CFR 60 Subpart J
D.64, D.106, D.107, D.117, D.123, D.124	Large Crude Unit Heater H-24 Vacuum Furnace H-17	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
D.65, D.89, D.113, D.122, D.123, D.124	All Process Heaters	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	40 CFR 63 Subpart DDDDD	Semiannually and 40 CFR 63 Subpart DDDDD

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.66, D.95, D.96, D.97, D.98, D.99, D.110, D.112, D.114, D.115, D.116, D.118, D.119, D.120, D.121, D.123, D.124	SO_2 emissions from the "Combined Fuel Gas Heater Limitation"	87.0 lb/block 3 hr period 696 lb per calendar day 254,040 lb per calendar year	Method 6/6C (RATA may substitute)	Annual RATA and as required by the Department and Section III.A.1	Semiannually
			CEMS	Ongoing	Quarterly
D.67, D.68, D.95, D.98, D.99, D.105, D.106, D.110, D.112, D.114, D.115, D.116, D.118, D.119, D.120, D.121, D.123, D.124	H_2S	0.10 grains/dscf on a rolling 3-hour basis	Method 11 (RATA may substitute)	Annually	Semiannually
			CEMS	Ongoing	Quarterly
D.69, D.95, D.98, D.99, D.105, D.106, D.110, D.112, D.114, D.115, D.116, D.118, D.119, D.120, D.121, D.123, D.124	H_2S - specific process heaters	0.073 gr/dscf (116.5 ppmv H_2S) per rolling 12-months	Method 11 (RATA may substitute)	Annually	Semiannually
			CEMS	Ongoing	Quarterly
D.70, D.94, D.112, D.123, D.124	PSA purge gas	Sulfur free purge gas	Method 11	As required by the Department and Section III.A.1	Semiannually
D.71, D.100, D.110, D.112, D.118, D.123, D.124	NO_X – Coker Heater	0.08 lb/MMBtu 7.38 lb/hr	Method 7	As required by the Department and Section III.A.1	Semiannually
			Low NO_X burners	Ongoing	
	NO_X – Other Furnaces	0.03 lb/MMBtu	Method 7	As required by the Department and Section III.A.1	
			ULNB or Low NO_X burners w /FGR	Ongoing	

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.72, D.100, D.110, D.112, D.118, D.123, D.124	Total NO_X – - Coker Heater, - Recycle Hydrogen Heater, - Fractionator Feed Heater and - No. 1 H_2 Unit Reformer Heater	13.54 lb/hr, 58.95 ton/yr	Method 7	As required by the Department and Section III.A.1	
			Ultra-Low and Low NO_X burners	Ongoing	
D.73, D.100, D.110, D.112, D.118, D.123, D.124	Total NO_X – - No. 5 HDS Charge Heater, - No. 5 HDS Stabilizer Reboiler Heater, and - No. 2 H_2 Unit Reformer Heater	7.95 lb/hr, 34.19 ton/yr	Method 7	As required by the Department and Section III.A.1	
			Ultra-Low and Low NO_X burners	Ongoing	
D.74, D.75, D.76, D.101, D.111, D.112, D.123, D.124	NO_X Control	Low NO_X burners, Ultra-low NO_X burners, and FGR	Recordkeeping	Monthly inspections and any maintenance	

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.77, D.102, D.110, D.112, D.118, D.123, D.124	CO – - No. 2 H_2 Unit Reformer Heater, - No. 5 HDS Stabilizer Reboiler Heater, and - No. 5 HDS Charge Heater	Various	Method 10	As required by the Department and Section III.A.1	
D.55, D.77, D.84, D.85, D.86, D.89, D.102, D.110, D.113, D.118, D.122, D.123, D.124	CO - Small Crude Unit Heater H-1 - - Large Crude Unit Heater H-24 - - No. 1 H2 Unit Reformer Heater H9401 - - Vacuum Furnace H-17	Various	Method 10 and MACT DDDDD compliance	Method 10 within 180 days of startup and as required by the Department. H-1 and H-9401 require Method 10 testing at least once every 5 years MACT DDDDD as required by MACT DDDDD	
D.78, D.79, D.103, D.110, D.118, D.123, D.124	Opacity	40% / 20%	Method 9	As required by the Department and Section III.A.1	Semiannually
D.80, D.104, D.110, D.112, D.118, D.123, D.124	Particulate Matter, Fuel Burning	$E= 0.882*H^{-0.1664}$ or $E= 1.026*H^{-0.233}$	Source Testing as approved by the Department		

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.81, D.112, D.123, D.124	Startup Notification	Small Crude Unit Heater H-1 Large Crude Unit Heater H-24 Vacuum Furnace H-17 No. 1 H_2 Unit Reformer Heater H-9401	Written Notification of startup within 30 days of startup	As Required	As Required and Semiannually
D.82, D.112, D.123, D.124	Notification of removal from service	"Existing" Vacuum Furnace	Written notification of the date of removal from service of the existing Vacuum Furnace Heater within 30 days of removal from service	As Required	As Required and Semiannually

Conditions

D.50. Phillips 66 shall not burn in the Small Crude Unit Heater H-1 (ARM 17.8.749), Large Crude Unit Heater H-24 (ARM 17.8.752), Vacuum Furnace H-17 (ARM 17.8.752) any fuel that contains H_2S in excess of the following:

a. 162 ppmv determined hourly on a 3-hour rolling average basis

b. 50 ppmv determined daily on a 365 successive calendar day rolling average basis

D.51. NO_X emissions from the Small Crude Unit Heater H-1 shall not exceed 0.030 lb/MMBtu on a higher heating value basis. The averaging period intended for this condition is an averaging period as would be utilized in an approved source test protocol accepted in accord with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.749 and ARM 17.8.1211).

D.52. Phillips 66 shall equip the Large Crude Unit Heater H-24 with Ultra-Low NO_X burners, replacing the current burners. NO_X emissions from the Large Crude Unit Heater H-24 shall not exceed 0.040 lb/MMBtu on a 30 day rolling average basis (ARM 17.8.749, ARM 17.8.752, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

D.53. NO_X emissions from the Vacuum Furnace H-17 shall not exceed 0.030 lb/MMBtu on a higher heating value basis, determined daily on a 30-day rolling average basis (ARM 17.8.752).

D.54. Emissions from the following heaters shall not exceed an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749 or ARM 17.8.752):

a. Small Crude Unit Heater H-1

b. Large Crude Unit Heater H-24

c. New Vacuum Furnace H-17

D.55. Phillips 66 shall minimize VOC, CO, and PM emissions from the Large Crude Unit Heater H-24, Vacuum Furnace H-17 and No. 1 H_2 Unit Reformer Heater H-9401 through complying with applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.752). Phillips 66 shall comply with all requirements of 40 CFR 63 Subpart DDDDD as applicable to the Large Crude Unit Heater as a reconstructed process heater designed to burn gas category 1, the Vacuum Furnace H-17 as a new gas category 1 process heater, and the No. 1 H_2 Unit Reformer Heater H-9401 as an existing process heater designed to burn gas category 1 (ARM 17.8.752, ARM 17.8.342, and 40 CFR 63 Subpart DDDDD).

D.56. The No. 1 H_2 Unit Reformer Heater H-9401 shall burn only natural gas, PSA off-gas, and/or cryo off-gas, which are inherently low sulfur fuels (ARM 17.8.749).

D.57. NO_X emissions from the No. 1 H_2 Unit Reformer Heater H-9401 shall not exceed 0.030 lb/MMBtu on a higher heating value basis. The averaging period intended for this condition is an averaging period as would be utilized in an approved source test protocol accepted in accord with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.749).

D.58. At no time shall Phillips 66 have emissions from both the existing and new Vacuum Furnace. Phillips 66 shall permanently remove from service the existing Vacuum Furnace. The existing Vacuum Furnace shall be made physically incapable of service, and/or removed from the site (ARM 17.8.749).

D.59. Phillips 66 shall not burn fuel oil in any of its heaters (ARM 17.8.749).

D.60. Phillips 66 shall operate and maintain an amine-based chemical absorption system on the refinery fuel gas system (ARM 17.8.752 and ARM 17.8.819).

D.61. Phillips 66 may not cause or authorize SO_2 emissions from the "22-Fuel-Gas-Heater" source in excess of 614 lb/day on a rolling 24-hour average or 45.5 ton/year on a rolling 12-month average (ARM 17.8.749 and ARM 17.8.1211).

D.62. Combined emissions of SO_2 for the "Combined Fuel Gas Heater Limitation" shall not exceed 87.0 pounds per 3-hour period, 696.0 pounds per calendar day, and 254,040 pounds per calendar year (ARM 17.8.749).

D.63. Phillips 66 shall comply with all applicable requirements of 40 CFR 60, Subpart J-Standards of Performance for Petroleum Refineries, as it applies to fuel gas combustion devices. Except for those process heaters considered "affected facilities" under 40 CFR 60 Subpart Ja, as listed in Section III.D.64, all process heaters used to combust RFG at Phillips 66 are fuel gas combustion devices and are considered "affected facilities" under 40 CFR 60, Subparts A and J (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart J).

D.64. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart Ja – Standards of Performance for Petroleum Refineries, as applicable to the following fuel gas combustion devices:

a. Large Crude Unit Heater H-24

b. Vacuum Furnace H-17

D.65. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.342 and 40 CFR 63 Subpart DDDDD).

D.66. Emissions from the following Heaters shall be included in the following combined SO_2 emissions limitation applicable to the sum of emissions from all process heaters located at the refinery: 87.0 lb/block 3-hr period, 696 lb per calendar day, 254,040 lb per calendar year (ARM 17.8.749):

a. Small Crude Unit Heater H-1

b. Large Crude Unit Heater H-24

c. Vacuum Furnace H-17

d. No. 1 H_2 Unit Reformer Heater H-9401

D.67. H_2S content of fuel gas burned shall not exceed 0.10 gr/dscf, rolling 3-hr average (ARM 17.8.749).

D.68. H_2S content of the fuel gas burned in the RFG Heaters/Furnaces shall not exceed 0.10 grains/dscf on a rolling 3-hour average basis (ARM 17.8.749, ARM 17.8.1211, ARM 17.8.340, and 40 CFR 60, Subpart J).

D.69. H_2S content of fuel gas shall not exceed 0.073 gr/dscf (116.5 ppmv H_2S) per rolling 12-month time period, for fuel gas burned in (ARM 17.8.749):

a. H-10, No. 2 HDS

b. H-11, Debutanizer Reboiler, No. 2 HDS

c. H-12, Main Frac. Reboiler No. 2 HDS

d. H-13, Catalytic Reforming Unit #2

e. H-14, Catalytic Reforming Unit #2

f. H-16, Stabilizer Reboiler, Sat Gas

g. H-23, Catalytic Reforming Unit #2

h. H-9401, No. 1 H_2 Unit Reformer Heater

i. H-9701, No. 2 H_2 Unit Reformer Heater

j. H-9501, No. 5 HDS Charge Heater

k. H-9502, No. 5 HDS Stabilizer Reboiler Heater

D.70. The Pressure Swing Adsorption (PSA) purge gas, used as furnace fuel for the No. 2 H_2 Unit Reformer Heater (H-9701), shall be sulfur free (ARM 17.8.752 and ARM 17.8.1211).

D.71. NO_x emissions shall not exceed the limit of (ARM 17.8.752 and ARM 17.8.1211):

a. Coker Heater (H-3901)- 0.08 lb/MMBtu and 7.38 lb/hr

b. Recycle Hydrogen Heater (H-8401) - 0.03 lb/MMBtu

c. Fractionator Feed Heater (H-8402) - 0.03 lb/MMBtu

d. No. 1 H_2 Unit Reformer Heater (H-9401) - 0.03 lb/MMBtu

e. No. 2 H_2 Unit Reformer Heater (H-9701) – 0.03 lb/MMBtu per rolling 12-month

f. No. 5 HDS Charge Heater (H-9501) – 0.03 lb/MMBtu per rolling 12-month

g. No. 5 HDS Stabilizer Reboiler Heater (H-9502) – 0.03 lb/MMBtu per rolling 12-month

D.72. The total NO_x emissions from the Coker Heater (H-3901), Recycle Hydrogen Heater (H-8401), Fractionator Feed Heater (H-8402), and No. 1 H_2 Unit Reformer Heater (H-9401) shall not exceed the limit of 13.54 lb/hr and 58.95 ton/yr (ARM 17.8.749, ARM 17.8.752, and ARM 17.8.1211).

D.73. The total NO_x emissions from the No. 5 HDS Charge Heater (H-9501), the No. 5 HDS Stabilizer Reboiler Heater (H-9502), and the No. 2 H_2 Unit Reformer Heater (H-9701) shall not exceed 7.95 lb/hr and 34.19 tons/year (ARM 17.8.752 and ARM 17.8.1211).

D.74. Phillips 66 shall equip and maintain low NO_x burners on the Coker Heater (H-3901) (ARM 17.8.749 and ARM 17.8.1211).

D.75. Phillips 66 shall equip and maintain ULNB on the Recycle Hydrogen Heater (H-8401), Fractionator Feed Heater (H-8402), No. 5 HDS Charge Heater (H-9501), No. 5 HDS Stabilizer (Fractionator) Reboiler Heater (H-9502), and No. 2 H_2 Plant Reformer Heater (H-9701) (ARM 17.8.749, ARM 17.8.752, and ARM 17.8.1211).

D.76. Phillips 66 shall equip and maintain low NO_x burners and Flue Gas Recirculation (FGR) on the No. 1 H_2 Plant Heater (H-9401) (ARM 17.8.749 and ARM 17.8.1211).

D.77. CO emissions shall not exceed the limit of (ARM 17.8.752 and ARM 17.8.1211):

a. No. 2 H_2 Unit Reformer Heater (H-9701) – 0.025 lb/MMBtu based on a rolling 365-day average

b. No. 5 HDS Charge Heater (H-9501) – 0.317 lb/MMBtu per rolling 12-month when heater is operating at 10.9 MMBtu/hr or less, and 0.1585 lb/MMBtu per rolling 12-month when heater is operating at 10.9 MMBtu/hr or more

c. No. 5 HDS Stabilizer Reboiler Heater (H-9502) – 0.1585 lb/MMBtu per rolling 12-month when heater is operating at 29.9 MMBtu/hr or less and 0.091 lb/MMBtu per rolling 12-month when heater is operating at 29.9 MMBtu/hr or more

D.78. Opacity from any of the RFG Heaters/Furnaces constructed prior to 1968 (including but not limited to H-2, H-4, H-5, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-18, H-19, H-20, H-21, H-23, H-24) shall not exceed 40% averaged over any 6 consecutive minutes (ARM 17.8.304(1)).

D.79. Opacity from any of the RFG Heaters/Furnaces constructed after 1968 (including but not limited to H-1, H-17, No. 5 HDS Charge Heater, No. 5 HDS Stabilizer Reboiler Heater, No. 2 H_2 Unit Reformer Heater, Coker Heater, Recycle Hydrogen Heater, Fractionator Feed Heater, and No. l H_2 Unit Reformer Heater H-9401), shall not exceed 20% averaged over any 6 consecutive minutes (ARM 17.8.304(2)).

D.80. Phillips 66 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 MMBtu per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu (ARM 17.8.309).

D.81. Phillips 66 shall provide the Department written notification of startup of the following equipment within 30 days of startup, as determined by the earlier of postmark or email date (ARM 17.8.749):

a. Small Crude Unit Heater H-1

b. Large Crude Unit Heater H-24

c. Vacuum Furnace H-17

d. No. 1 H_2 Unit Reformer Heater H-9401

D.82. Phillips 66 shall provide the Department written notification of the date of removal from service the existing Vacuum Furnace H-17 within 30 days of removal from service (as determined by the earlier of postmark or email date) (ARM 17.8.749).

Compliance Demonstration

D.83. Phillips 66 shall monitor the H_2S concentration in fuel gas utilizing the fuel gas monitoring methodologies described in 40 CFR 60 Subpart Ja (ARM 17.8.749 and ARM 17.8.1213, and as applicable - ARM 17.8.340 and 40 CFR 60 Subpart Ja).

D.84. Within 180 days of startup of the modified Small Crude Unit Heater H-1, Large Crude Unit Heater H-24, No. 1 H_2 Unit Reformer Heater H-9401, and Vacuum Furnace H-17, Phillips 66 shall test the units for NO_X and CO, concurrently. The test shall include determination of Btu fired during the test, as well as the mass based emissions rates, and comparison to emissions factors utilized in the permit application for MAQP #2619-32. Thereafter, Phillips 66 shall test for NO_X and CO, concurrently, to determine emissions on a mass rate basis, as required by the Department (ARM 17.8.749) Phillips 66 shall also inspect, monthly, the low NO_X burners installed as part of the Vacuum Improvement Project and record maintenance performed. (ARM 17.8.1212).

D.85. Phillips 66 shall test, at least once every 5 years, the modified Small Crude Unit Heater H-1 for NO_X and CO, concurrently. The test shall include determination of Btu fired during the test and determination of a lb/MMBtu emissions rate, based off of Btu content of refinery fuel gas determined for NSPS-affected units. Phillips 66 shall utilize the F factor data determined for units subject to NSPS Ja which burn the same refinery fuel gas in determining mass emissions reported in the annual emissions inventory (ARM 17.8.1212).

D.86. Phillips 66 shall test, at least once every 5 years, the No. 1 H_2 Unit Reformer Heater H-9401 for NO_X and CO, concurrently. Each test shall be conducted as approved by the Department (ARM 17.8.1212).

D.87. Phillips 66 shall install, operate, calibrate and maintain CEMS for continuously monitoring and recording the concentration (dry basis, 0-percent excess air) of NO_X emissions into the atmosphere and shall determine the F factor of the fuel gas stream no less frequently than once per day. F factor determination and CEMS equipment, operation, calibration, performance evaluation, and emissions recording shall be accomplished utilizing the methodologies described and referenced in 40 CFR 60 Subpart Ja, and shall include O_2 monitoring, for the following process heaters (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

a. Large Crude Unit Heater H-24
b. Vacuum Furnace H-17

D.88. Within 90 days of startup of the modified Small Crude Unit Heater H-1, Large Crude Unit Heater H-24, and Vacuum Furnace H-17, Phillips 66 shall conduct an initial visual observation of each respective unit. Visual observation shall occur during normal operation in daylight hours. The observer need not be certified to perform Method 9 testing, however, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. Phillips 66 shall record the date, time, observers printed and signed name and affiliation, estimated distance and direction to the stack, estimated wind direction, and results of the observation (no visible emissions or presence of visible emissions). Visual observation shall be no less than 3 six minute periods within any one hour. If the visual observation notes no visible emissions, no further testing shall be required to fulfill this initial startup test. If visual emissions are

observed, Phillips 66 shall conduct a Method 9 source test as soon as reasonably possible. Thereafter, Phillips 66 shall conduct Method 9 source tests as required by the Department (ARM 17.8.749).

D.89. Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart DDDDD as required by 40 CFR 63 Subpart DDDDD (ARM 17.8.1213, ARM 17.8.342, and 40 CFR 63 Subpart DDDDD).

D.90. By the 25th day of each month, Phillips 66 shall total and record the amount of fuel, by fuel type, burned in the No. 1 H_2 Unit Reformer Heater H-9401 during the previous month (ARM 17.8.1213).

D.91. Phillips 66 shall notify the Department detailing the date and method of making the existing vacuum furnace inoperable, and/or notifying the Department of the date of removal of the unit, postmarked or emailed within 30 days of making the unit inoperable or removing from service (ARM 17.8.1213).

D.92. Phillips 66 shall record any instance in which fuel oil was combusted in any of the Process Heaters for the period, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

D.93. Phillips 66 shall document any time the amine-based chemical absorption system on the refinery fuel gas system is not operating (ARM 17.8.1213).

D.94. Phillips 66 shall demonstrate compliance with the PSA purge gas being sulfur free via explanation of the inherent nature of the process, and NSPS J monitoring of fuel gas to the No. 2 H_2 Unit Reformer Heater H-9701 (ARM 17.8.1213).

D.95. Phillips 66 shall conduct all monitoring and testing as required by 40 CFR 60 Subpart J and 40 CFR 60 Subpart Ja for those units subject to Ja or required to monitor in accordance with Ja, to monitor compliance with Section III.D.62, III.D.63, III.D.67, III.D.68, III.D.69, III.D.70. Phillips 66 shall install, calibrate, maintain, and operate a H_2S CEMS to continuously monitor and record the concentration (dry basis) of H_2S in the RFG before being burned in any fuel gas combustion device, or develop an Alternate Monitoring Plan (AMP), as required by 40 CFR 60, Subparts A and J. Compliance with the fuel gas H_2S concentration limits shall be monitored based on 3-hour rolling average H_2S concentrations, determined by utilizing data taken from the CEMS and other Department-approved sampling methods.

The H_2S CEMS shall be installed, certified, and operated in accordance with Performance Specification 7 (40 CFR 60, Appendix B) to meet applicable provisions of 40 CFR 60.105(a)(4), 60.7, and 60.13. The H_2S CEMS shall meet the quality assurance and quality control requirements set out in 40 CFR 60, Appendix F (annual RATA), as provided by the SO_2 Stipulation. The CEMS shall meet applicable quarterly data recovery rates and other provisions of §6(A) of the SO_2 Stipulation (ARM 17.8.340 and 40 CFR 60 Subpart J and Ja; ARM 17.8.749; Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002, ARM 17.8.1212, and ARM 17.8.1213).

D.96. Phillips 66 shall operate and maintain a continuous flow rate monitor on the RFG header. Accuracy determinations for the RFG flow rate monitor shall be required at least once every

48 months or more frequently as routine refinery turn-arounds allow (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.97. Compliance with the SO_2 emission limitation for the RFG fired units, contained in Section III.D.61 and III.D.62, shall be monitored by using hourly average H_2S concentration and hourly average fuel gas flow rate data from the CEMS and in accordance with the appropriate equations contained in the SIP (Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.98. Compliance with Section III.D.61, III.D.62, III.D.63, III.D.67, III.D.68, III.D.69, III.D.70, shall be monitored by utilizing valid data taken from CEMS and other Department approved sampling methods (ARM 17.8.749 and ARM 17.8.1211).

a. The above does not relieve Phillips 66 from meeting any applicable requirements of 40 CFR Part 60, Appendices A and B, or other stack testing that may be required by the Department.

b. Other stack testing may include, but is not limited to, the following air pollutants: SO_2, NOx, NH_3, CO, particulate matter (PM, PM_{10}), and VOCs.

c. Reporting requirements shall be consistent with 40 CFR Part 60, or as specified by the Department.

d. All gaseous (SO_2 and H_2S) CEMS shall be required to comply with quality assurance/quality control procedures in 40 CFR Part 60, Appendix F. 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).

e. 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. In the event the primary CEM system is unable to meet minimum availability requirements, Phillips 66 shall provide a back-up or alternative monitoring system and plan such that continuous compliance can be monitored. The Department shall approve such contingency plans.

D.99. In order to accurately determine the H_2S concentration in parts per million for the fuel gas-system, Phillips 66 shall perform annual source testing using EPA-approved methods (40 CFR Part 60, Appendix A, Method 11) or an equivalent method approved by the Department and EPA, and in accordance with Section III.A.2 of this permit (ARM 17.8.106, Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.100. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 7 or other Department approved test methods to monitor compliance with the NO_x emission limitations in Section III.D.71, III.D.72, III.D.73 (ARM 17.8.1213).

D.101. Compliance with Sections III.D.74, III.D.75, and III.D.76 shall be monitored by monthly inspection of the FGR, Ultra Low and Low NO_x burners to confirm they are properly installed and operating on the fuel gas combustion units (ARM 17.8.1213).

D.102. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 10 or other Department approved test methods, to monitor compliance with the CO limitation in Section III.D.77 (ARM 17.8.1213).

D.103. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Method 9 to monitor compliance with Section III.D.78 and III.D.79 (ARM 17.8.1213).

D.104. As required by the Department and Section III.A.1, Phillips 66 shall perform source testing on the fuel gas combustion units using Methods as approved by the Department, as well as record fuel throughput as needed, to monitor compliance with Section III.D.80 (ARM 17.8.749 and ARM 17.8.1213).

D.105. Phillips 66 shall demonstrate compliance with 40 CFR 60 Subpart J as required by 40 CFR 60 Subpart J (ARM 17.8.340 and 40 CFR 60 Subpart J).

D.106. Phillips 66 shall demonstrate compliance with 40 CFR 60 Subpart Ja as required by 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Recordkeeping

D.107. Phillips 66 shall keep records as outlined in 40 CFR 60 Subpart Ja for refinery fuel gas process heaters (ARM 17.8.1212 and, as applicable, ARM 17.8.340 and 40 CFR 60 Subpart Ja).

D.108. Phillips 66 shall maintain, under Phillips 66's control, a record of fuel oil consumption as required in Section III.D.92 (ARM 17.8.1212).

D.109. Phillips 66 shall maintain, under Phillips 66's control, the amine treater operational records required by Section III.D.93 (ARM 17.8.1212).

D.110. All source testing recordkeeping shall be performed in accordance with the appropriate test method being used and Section III.A.2 (ARM 17.8.106).

D.111. Phillips 66 shall maintain, under Phillips 66's control, a record of monthly inspection and any maintenance performed on the Ultra-Low and Low NO_x burners (ARM 17.8.1212).

D.112. Phillips 66 shall maintain, under Phillips 66's control, all records required for monitoring compliance, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

D.113. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.1212, ARM 17.8.342, and 40 CFR 63 Subpart DDDDD).

D.114. CEMS data shall be recorded by a data collections system and shall be maintained under Phillips 66's control for at least 5-years after the date of data generation. This electronic data shall be made available to Department personnel upon request and shall be submitted to the Department upon request (ARM 17.8.1212).

D.115. Phillips 66 shall keep all records as required by 40 CFR 60 Subpart J (ARM 17.8.340 and 40 CFR 60 Subpart J).

D.116. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

Reporting

D.117. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart Ja for refinery fuel gas process heaters. (ARM 17.8.340 and 40 CFR 60 Subpart Ja) Further, Phillips 66 shall comply with the semiannual reporting requirements of Section III.D.124, regarding semiannual reporting of monitoring information, for those limits which are not derived from 40 CFR 60 Subpart Ja (ARM 17.8.1212).

D.118. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

D.119. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

D.120. In accordance with Section 7 of the Stipulation, Phillips 66 shall submit quarterly reports within 30 days of the end of each calendar quarter. The quarterly reports shall be submitted to the Department's Permitting and Compliance office in Helena and the appropriate Regional Office from which the Compliance Officer is based from. 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 Control Plan, approved into the SIP by EPA on May 2, 2002).

D.121. Phillips 66 shall provide quarterly emission reports from SO_2 related monitors. Emission reporting for SO_2 from all point source locations shall consist of 24-hour calendar day totals per calendar month. The quarterly SO_2 emission report shall also include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating times during the reporting period.

b. Monitoring down time which occurred during the reporting period.

c. A summary of excess emissions for each pollutant and averaging period identified in Section III.D.61, III.D.62, III.D.63, III.D.67, III.D.68, and III.D.69

d. Reasons for any emissions in excess of those specifically allowed with mitigation measures utilized and corrective actions taken to prevent a recurrence of the upset condition.

Phillips 66 shall submit quarterly emission reports within 30 days of the end of each calendar quarter.

D.122. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart DDDDD (ARM 17.8.1212, ARM 17.8.342, and 40 CFR 63 Subpart DDDDD).

D.123. 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.124. The semiannual reporting shall provide (ARM 17.8.1212):

a. A summary of the refinery fuel gas H_2S content which shall consist of:

1. the average and maximum of the 3-hour rolling ppmv values which are determined hourly

2. the average and maximum of the 365 day rolling averages determined daily

3. A statement pointing out any instances of non-compliance

4. A report indicating any CEMS downtime which occurred during the reporting period

b. A summary of any visual surveys conducted including any follow up Method 9 tests and any necessary corrective actions taken.

c. A summary of any source tests conducted during the semiannual period.

d. A summary of startup notifications sent to the Department regarding the startup notification requirements of Section III.D.81.

e. A summary of notifications sent to the Department regarding removing and/or making inoperable the existing Vacuum Furnace.

f. A summary of the No. 1 H_2 Unit Fuel Usage records.

g. A summary of the fuel oil combustion records during the reporting period, which shall include the date, duration, circumstance, and operators initials of anytime fuel oil is burned, or statement that no fuel oil was burned during the reporting period.

h. A summary of the amine treater operations records created during the reporting period, or statement that no records creation was required.

i. A brief summary regarding the demonstration that PSA purge gas remained sulfur free.

j. A summary of results of any source testing that was required and submitted to the Department during the reporting period, which shall include the date the source test report was submitted to the Department, and the results of the source tests.

k. Dates of the monthly inspections and brief summary of any maintenance performed on the Ultra-Low and Low NOx burners during the reporting period as described in Section III.D.101.

l. Dates that quarterly reports of SO_2 CEMS data were submitted.

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

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

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

E. EU004: Refinery Main Plant Relief Flare

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
E.1, E.8, E.14, E.20, E.22, E.23.	Flare	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja and Semiannually
E.2, E.3, E.4, E.5, E.9, E.10, E.11, E.13, E.15, E.16, E.17, E.21, E.22, E.23.	SO_2	Minimize SO_2 flaring by operating with flare gas recovery system	Recordkeeping	Ongoing	At least Quarterly & as necessary
		Flaring 150 lb/3-hr	Reporting & Corrective Action		
		Offset SO_2 Emissions	Recordkeeping		Semiannually
E.6, E.12, E.19, E.22, E.23.	Flare	Equipped and Operated with a Steam Injection System. Tip to Base: at least 142 +/- 2 feet above grade	Recordkeeping	Ongoing	Semiannually
E.7, E.13, E.18, E.22, E.23.	Flow rate	Flow rate metering shall use approved standards, methods, accounting procedures, and engineering data	Recordkeeping	Monthly	Quarterly

Conditions

E.1. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart Ja (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

E.2. Phillips 66 shall not allow SO_2 emissions from any 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 of Environmental Review Order signed on June 12, 1998, this requirement is "State Only").

E.3. Except for minor flaring events, Phillips 66 shall minimize SO_2 emissions from flaring. In addition, when flaring of sulfur bearing gases occurs due to a malfunction, Phillips 66 shall take immediate action to correct the malfunction (Board of Environmental Review Order signed on June 12, 1998, this requirement is "State Only").

E.4. The Refinery Main Plant Relief Flare shall not burn any fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60 Subpart Ja).

E.5. SO_2 emission increases, due to upset conditions or discontinuance of the SRU, shall be offset by an equivalent rate from any other sources covered by this permit (ARM 17.8.749 and ARM 17.8.1211).

E.6. The Refinery Main Plant Relief Flare must be equipped and operated with a steam injection system (ARM 17.8.752 and ARM 17.8.1211). The flare tip height shall be a minimum of 142 feet plus or minus 2 feet above grade (ARM 17.8.749 and ARM 17.8.1211). Phillips 66 shall minimize SO_2 flaring by installing and operating flare gas recovery systems on the Refinery Main Plant Relief flare (ARM 17.8.749).

E.7. Any flow rate metering from upset or malfunctioning process units that are directed to the Refinery Main Plant Relief flare shall use approved standards, methods, accounting procedures, and engineering data (ARM 17.8.749 and ARM 17.8.1211).

Compliance Demonstration

E.8. Phillips 66 shall demonstrate compliance with the requirements of 40 CFR 60 Subpart Ja, as required by 40 CFR 60 Subpart Ja, including through monitoring of emissions and operations as required by 40 CFR 60.107a, the testing requirements of 40 CFR 60.104a, and the applicable recordkeeping and reporting requirements of 40 CFR 60.108a. Phillips 66 shall install and operate a flow continuous monitoring system and an H_2S or TRS CEMS. Emission monitoring shall be subject to 40 CFR 60 including 40 CFR 60.11, 40 CFR 60.13, and Appendix A, Appendix B performance specifications 2 and 3 and Appendix F (ARM 17.8.749, ARM 17.8.340, 40 CFR 60 Subpart Ja and ARM 17.8.1213).

E.9. Phillips 66 shall maintain records of the extent and duration of all periods in which the FGRS for the Refinery Main Plant Relief Flare is not operated. During such periods, Phillips 66 shall also measure or estimate (as appropriate) all SO_2 emissions which result from gases being directed to and combusted in the flare. Flow rate metering from upset or malfunctioning process units that are directed to the flare shall use approved standards, methods, accounting procedures, and engineering data (ARM 17.8.749 and ARM 17.8.1213).

E.10. For purposes of determining whether a flaring event greater than 150 pounds of SO_2 per 3-hour period has occurred, Phillips 66 shall maintain records of all activities, other than de minimis activities, that result in SO_2 emissions from the flare (Board of Environmental Review Order signed on June 12, 1998, this requirement is "State Only," and ARM 17.8.1213).

E.11. Phillips 66 shall maintain, under Phillips 66's control, a record of SO_2 offsets as required by Section III.E.5 (ARM 17.8.1213).

E.12. Phillips 66 shall maintain, under Phillips 66's control, a record of any changes made to the Refinery Main Plant Relief flare steam injection system or stack height, as required by Section III.E.6, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

E.13. Phillips 66 shall provide quarterly emission reports for the Refinery Main Plant Relief flare SO_2 emissions based on H_2S concentration information and flow information. The quarterly emission reports shall be submitted within 30 days of the end of each calendar quarter. The quarterly report shall consist of 24-hour calendar day totals per calendar month and shall include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating time during the reporting period.

b. Monitoring downtime that occurred during the reporting period.

c. A summary of excess emissions for each pollutant and averaging period.

d. Emission estimates for SO_2, other than de minimis activities, from material balance, engineering calculation data, and any emission testing.

Recordkeeping

E.14. Phillips 66 shall keep all records as required by 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

E.15. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

E.16. Recordkeeping compiled for purposes of demonstrating compliance with emission limits shall be retained by Phillips 66 for a minimum of 5-years (ARM 17.8.1212).

E.17. Phillips 66 shall maintain a record of all flaring events other than flaring caused by de minimis activities. 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 of Environmental Review Order signed on June 12, 1998, this requirement is "State Only," and ARM 17.8.1213).

E.18. Phillips 66 shall maintain, under Phillips 66's control, a record of the monthly inspection and maintenance performed on the flow rate-metering device used on upset or malfunctioning process units that are directed to either the Refinery Main Plant Relief flare or the SRU flare (ARM 17.8.1212).

E.19. The Refinery Main Plant Relief Flare recordkeeping shall be maintained as required in Section III.E.12 (ARM 17.8.1212).

Reporting

E.20. Phillips 66 shall comply with the applicable reporting requirements of 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CF 60 Subpart Ja).

E.21. For flaring events in excess of 150 lb/3-hr period, Phillips 66 shall comply with the reporting requirements identified in Section (3)(A)(5) of Exhibit A-1 of the Stipulation (Board of Environmental Review Order Signed on June 12, 1998. This requirement is "State Only").

E.22. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

E.23. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. A summary of SO_2 offsets during the reporting period.

c. A summary of the monthly inspection and maintenance performed on the flow rate-metering devices, which shall include the dates of the inspections and brief summary of any maintenance performed.

d. A summary of any records created as required by Section III.E.9 during the reporting period, which shall include the extent and duration of all periods during the reporting period in which the FGRS for the Refinery Main Plant Relief Flare is not operated, and the estimated SO_2 emissions during those periods, or statement that no such record creation was required.

e. A summary of any record creation required by Section III.E.12 regarding any changes made to the Refinery Main Plant Relief flare steam injection system or stack height during the reporting period, or statement that no record creation was required.

f. Dates that quarterly reports were submitted as required by Section III.E.13.

g. Dates that any reports required by Section III.E.21 were made during the reporting period, or statement that no reports were required.

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

F. EU005 – Cooling Towers associated with Vacuum Improvement Project and NaHS Project

Cooling Tower CWT-5
Jupiter Cooling Tower CT 615-A/B/C
Jupiter Cooling Tower CT-120
Jupiter Cooling Tower CT-602

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
F.1, F.5, F.9, F.11, F.12, F.13	40 CFR 63 Subpart CC – Heat Exchangers	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	Semiannual and 40 CFR 63 Subpart CC
F.2, F.6, F.10, F.12, F.13	PM, PM_{10}, $PM_{2.5}$	0.0010% Drift Rate	Recordkeeping	Ongoing	Semiannually
F.3, F.7, F.10, F.12, F.13	PM, PM_{10}, $PM_{2.5}$	Conductivity Limit of 3,130 µS/cm	Grab Sample Testing	Quarterly (or as approved by the Department)	Semiannually
F.4, F.8, F.10, F.12, F.13	Startup Notification	Within 30 days of startup	Recordkeeping and Reporting	Within 30 days of startup and ongoing	Within 30 days of startup and semiannually

Conditions

F.1 Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart CC as applicable to all heat exchange systems as defined in this subpart, including but not limited to, the Cooling Tower CWT-5 (EPN 53), Jupiter Cooling Tower CT 615-A/B/C (EPN 5), Jupiter Cooling Tower CT-120 (EPN 8), and Jupiter Cooling Tower CT-602 (EPN 9) (ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.2 Cooling Tower CWT-5 (EPN 53), Jupiter Cooling Tower CT-615 A/B/C (EPN 5), and Jupiter Cooling Tower CT-120 (EPN 8) shall be equipped with a high efficiency drift eliminator. The cooling towers shall be designed for no more than a 0.0010% drift rate (ARM 17.8.752).

F.3 The maximum conductivity of water in the cooling towers shall not exceed 3,130 microsiemens per centimeter (µS/cm) at 25 degrees Celsius (ARM 17.8.749).

F.4 Phillips 66 shall notify the Department of startup of each of the new cooling towers within 30 days of startup, as determined by the earlier of postmark or email date (ARM 17.8.749).

Compliance Demonstration

F.5 Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart CC as applicable to the cooling towers as required by 40 CFR 63 Subpart CC, including but not limited to, conducting all monitoring and leak repair requirements for heat exchangers (ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.6 Phillips 66 shall maintain documentation, written and provided by the vendor/manufacturer, of the guaranteed design drift rate of the new cooling towers (ARM 17.8.749).

F.7 Phillips 66 shall test a representative grab sample of cooling tower water for conductivity at least once per calendar quarter, or according to another schedule as may be approved by the Department. Method 120.1 conductivity test procedures, as found for use under 40 CFR 136, or other methods as may be approved by the Department in advance, shall be utilized (ARM 17.8.749).

F.8 Phillips 66 shall maintain records of the startup notification(s) provided to the Department for a minimum of 5 years from the date of record.

Recordkeeping

F.9 Phillips 66 shall maintain records as required by 40 CFR 63 Subpart CC as applicable to the cooling towers (ARM 17.8.342 and 40 CFR 63 Subpart CC).

F.10 Phillips 66 shall maintain, under Phillips 66's control, all records required for monitoring compliance, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

Reporting

F.11 Phillips 66 shall comply with all reporting requirements of 40 CFR 63 Subpart CC as applicable to the cooling towers (ARM 17.8.1212).

F.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).

F.13 The semiannual report shall provide (ARM 17.8.1212):

a. A summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC as applicable to the cooling towers during the semiannual reporting period.

b. A summary of the results of monitoring performed during the semiannual period.

c. A report of any changes to the as-built design of the high efficiency drift eliminator, or a statement that no changes have occurred.

G. **EU006 – Refinery Fugitive Emissions**

C-23 Compressor Station, Delayed Coking Unit, Cryogenic Unit, Hydrogen Membrane Unit, Gasoline Merox Unit, Crude Topping Unit, Crude Vacuum Unit, Fluidized Catalytic Cracking Unit, Catalytic Reforming Unit, Hydrodesulfurization Unit, Gas Oil Hydrotreater Unit (consisting of a reaction section, fractionation section, and an amine treating section), 20.0 MMscfd Hydrogen Plant Feed System, Alkylation Unit Butane Defluorinator (consisting of heat exchangers; X-453, X-223, X-450, X-451, X-452, pumps; P-646, Vessels; D-130, D-359, D-360), PMA Process Unit, Alkylation Unit Depropanizer, Cryo Debutanizer Unit, Butamer/Feed Prep Unit, Gas Recovery Plant Unit, Naphtha Splitter Unit, Sat Gas Plant Unit, Hydrogen Purification Unit, Railcar loading, Cooling Towers, Tank Farm, C-3901 Coker Unit Wet Gas Compressor, C-5301 Flare Gas Recovery Unit Liquid Ring Compressor, C-5302 Flare Gas Recovery Unit Liquid Ring Compressor, C-8301 Cryo Unit Inlet Gas Compressor, C-8302 Cryo Unit Refrigerant Compressor, C-8303 Cryo Unit Regeneration Gas Compressor, C-8401 No. 4 HDS Makeup/Recycle Hydrogen Compressor, C-7401 Hydrogen Makeup/Reformer Hydrogen

Compressor, C-9401 #1 Hydrogen Plant Feed Gas Compressor, C-9501 Makeup/Recycle Gas Compressor, C-9701 #2 Hydrogen Plant Feed Gas Compressor, C-8402 Makeup/Recycle Hydrogen Compressor

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
G.1, G.16, G.27, G.28, G.30, G.31	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	Semiannually and as required by 40 CFR 60 Subpart GGG
G.2, G.27, G.30, G.31	40 CFR 60 Subpart GGG for Compressors in H_2 Service	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	40 CFR 60 Subpart GGG	Semiannually and as required by 40 CFR 60, Subpart GGG
G.3, G.18, G.27, G.30, G.31	40 CFR 60 Subpart GGGa for Compressors in H_2 Service	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannually and as required by 40 CFR 60 Subpart GGGa,
G.4, G.19, G.27, G.28, G.30, G.31	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannually and as required by 40 CFR 60 Subpart GGGa,
G.5, G.20, G.27, G.28, G.30, G.31	40 CFR 63 Subpart CC	40 CFR 63 Subpart CC	40 CFR 63.654	40 CFR 63.654	Semiannually and as required by 40 CFR 63.654
G.6, G.21, G.27, G.30, G.31	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and as required by 40 CFR 60 Subpart Ja
G.7– G.10, G.17, G.19, G.22, G.27, G.28, G.30, G.31	All Valves	High quality with high quality packing.	Recordkeeping	As purchased and installed	Semiannually
	Open-Ended Valves	High quality with high quality packing Plugs, caps or a second valve on the open end.			
	Pipe and Tower Flanges	Compatible gasket material			
	Pumps	Mechanical seals		During performance of program	
	C-23 Compressor VOC monitoring, maintenance, and repair program	Monitor and repair as soon as practicable	Recordkeeping	Ongoing	
G.11, G.12, G.22, G.27, G.28, G.30, G.31	Saturate Gas Plant	LDAR	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
G.13, G.23, G.27, G.30, G.31	LSG Project	LDAR	40 CFR 60 Subpart VV	40 CFR 60 Subpart VV	
G.14, G.24, G.27, G.30, G.31	Haul Road PM Opacity	20%	Method 9	As required by the Department and Section III.A.1	
G.15, G.25, G.26, G.27, G.30, G.31	Haul Road PM Opacity	20%	Method 9	As required by the Department and Section III.A.1	

Conditions

G.1 Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries, including as applicable to the following units (ARM 17.8.340 and 40 CFR 60 Subpart GGG):

a. C-3901, Coker Unit Wet Gas Compressor

b. C-5301, Flare Gas Recovery Unit Liquid Ring Compressor

c. C-5302, Flare Gas Recovery Unit Liquid Ring Compressor

d. C-8301, Cryo Unit Inlet Gas Compressor

e. C-8302, Cryo Unit Refrigerant Compressor

f. C-8303, Cryo Unit Regeneration Gas Compressor

g. C-9401, #1 Hydrogen Plant Feed Gas Compressor

h. C-9701, #2 Hydrogen Plant Feed Gas Compressor

G.2 Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries, as applicable to compressors which are in hydrogen service, including as may be applicable to the following units (ARM 17.8.340 and 40 CFR 60 Subpart GGG):

a. C-8401, No. 4 HDS Makeup/Recycle Hydrogen Compressor

b. C-7401, Hydrogen Makeup/Reformer Hydrogen Compressor

c. C-9501, Makeup/Recycle Gas Compressor

G.3 Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa – Standards of Performance for Equipment Leaks in Petroleum Refineries, as applicable to compressor(s) in hydrogen service, including as may be applicable to the C-8402, No. 4 HDS Makeup/Recycle Compressor (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

G.4 Phillips 66 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 as applicable to the following units (ARM 17.8.340 and 40 CFR 60 Subpart GGGa):

a. Delayed coker unit

b. Cryogenic unit

c. Hydrogen membrane unit

d. Gasoline merox unit

e. Crude vacuum unit

f. Gas oil hydrotreater unit (consisting of a reaction section, fractionation section, and an amine treating section)

g. No.1 H2 Unit (22.0-million standard cubic feet per day (MMscfd) hydrogen plant feed system)

h. Alkylation Unit Butane Defluorinator Project (consisting of heat exchangers; X-453, X-223, X-450, X-451, X-452, pumps; P-646, Vessels; D-130, D-359, D-360)

i. Alkylation Unit Depropanizer Project

j. #3 Sour Water Stripper (SWS) Unit

k. Fugitive components associated with boilers #B-5 and #B-6

l. The fugitive components associated with the No.2 H2 Unit and the No.5 HDS Unit

m. HPU and

n. Any other applicable equipment constructed or modified after November 7, 2006

G.5 Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart CC, including compliance with the applicable requirements contained in 40 CFR 60 Subpart VV. In addition, Phillips 66 shall comply with all applicable requirements of 40 CFR 63.648 as they apply to all units subject to 40 CFR 63 Subpart CC that are required to comply with the equipment leak regulations, including, but not limited to the Tank Farm, Large Crude/Vacuum Unit, Small Crude Unit, #1 & #2 Reformer Unit, #1 & #2 HDS Unit, Cryo Debutanizer Unit, Butamer/Feed Prep Unit, FCCU, Gas Recovery Plant Unit, Alkylation Unit, PB Merox Unit, Naphtha Splitter Unit, Sat Gas Plant Unit, and Hydrogen Purification Unit (ARM 17.8.342 and 40 CFR 63 Subpart CC).

G.6 Phillips 66 shall comply with 40 CFR 60 Subpart Ja, as is applicable to the Delayed Coking Unit (ARM 17.8.340 and 40 CFR 60 Subpart Ja). Subpart Ja requires that the owner or operator of a delayed coking unit shall depressure each coke drum to 5 lb per square inch gauge (psig) or less prior to discharging the coke drum steam exhaust to the atmosphere.

Until the coke drum pressure reaches 5 psig, the coke drum steam exhaust must be managed in an enclosed blowdown system and the uncondensed vapor must either be recovered (e.g., sent to the delayed coking unit fractionators) or vented to the fuel gas system, a fuel gas combustion device or a flare.

G.7 All valves used in equipment subject to 40 CFR 60 Subpart GGGa, as well as the C-23 Compressor station, shall be high quality valves containing high quality packing (ARM 17.8.340 and 40 CFR 60 Subpart GGGa and ARM 17.8.752 (C-23)).

G.8 All open-ended valves used in equipment subject to 40 CFR 60 Subpart GGGa, as well as the C-23 Compressor station, shall be high quality valves containing high quality packing. They shall have plugs, caps, or a second valve installed on the open end (ARM 17.8.340 and 40 CFR 60 Subpart GGGa and ARM 17.8.752 (C-23)).

G.9 All pipe and tower flanges used in equipment subject to 40 CFR 60 Subpart GGGa, as well as the C-23 Compressor station, shall be installed using process compatible gasket material (ARM 17.8.340 and 40 CFR 60 Subpart GGGa and ARM 17.8.752 (C-23)).

G.10 All pumps used in equipment subject to 40 CFR 60 Subpart GGGa, as well as the C-23 Compressor station, shall be fitted with the highest quality state-of-the-art mechanical seals, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGGa, and ARM 17.8.752 (C-23)).

G.11 The C-23 Compressor station shall have a VOC monitoring and maintenance program instituted as described in 40 CFR 60.482-2, 40 CFR 60.482-4 thru 10, 40 CFR 60.483-1 and 2, 40 CFR 60.485, 40 CFR 60.486 (b-k), and 40 CFR 60.486 (c-e) (ARM 17.8.752).

G.12 If monitoring or scheduled inspections for the C-23 Compressor indicate failure or leakage of the C-23 compressor seal system, then the seals shall be repaired as soon as practicable, but not later than 15 days after it is detected, except as provided in 40 CFR 60.482-9 (ARM 17.8.752).

G.13 Phillips 66 shall operate and maintain the Saturate Gas Plant according to the Leak Detection and Repair (LDAR) program. Phillips 66 shall monitor and maintain all pumps, shutoff valves, relief valves, and other piping and valves associated with the Saturate Gas Plant, as described in 40 CFR 60.482-1 through 60.482-10 (ARM 17.8.342, 40 CFR 63 Subpart CC and ARM 17.8.752).

G.14 Phillips 66 shall operate and maintain all new (associated with the Low Sulfur Gasoline (LSG) project) fugitive component VOC emissions in the No.2 HDS Unit, the Gas Oil Hydrodesulfurizer (GOHDS) Unit, and the Tank Farm (including those fugitive emissions associated with the LSG tank) according to the LDAR program (ARM 17.8.342; 40 CFR 63 Subpart CC; and ARM 17.8.752).

G.15 All access roads shall use either paving or chemical dust suppression to limit excessive fugitive dust with water as a back-up measure to maintain compliance with ARM 17.8.308 and the 20% opacity limitation. Construction and earth-moving activities shall use reasonable precautions to limit excessive fugitive dust to mitigate impacts to nearby residential and commercial places (ARM 17.8.749, ARM 17.8.1211, and ARM 17.8.308).

Compliance Demonstration

G.16 Compliance monitoring for 40 CFR 60 Subpart GGG shall be performed as required by 40 CFR 60 Subpart GGG, including in accordance with the referenced applicable provisions of 40 CFR 60 Subpart VV (ARM 17.8.340 and 40 CFR 60 Subpart GGG).

G.17 Phillips 66 shall maintain available on-site at all times, and submit to the Department upon request, demonstration of the hydrogen service status of the compressors in hydrogen service under 40 CFR 60 Subpart GGG. Demonstrations shall conform with the requirements of 40 CFR 60.593(b)(2) and (3), as applicable. If hydrogen service status of a compressor changes, Phillips 66 shall notify the Department of the corresponding status change including submission of a corresponding demonstration, and as applicable, in accordance with 40 CFR 60.593(b)(3)(ii) (ARM 17.8.1213).

G.18 Phillips 66 shall maintain available on-site at all times, and submit to the Department upon request, demonstration of the hydrogen service status of the compressors in hydrogen service under 40 CFR 60 Subpart GGGa. Demonstrations shall conform with the requirements of 40 CFR 60.593a(b)(2) and (3), as applicable. If hydrogen service status of a compressor changes, Phillips 66 shall notify the Department of the corresponding status change including submission of a corresponding demonstration, and as applicable, in accordance with 40 CFR 60.593a(b)(3)(ii) (ARM 17.8.1213).

G.19 Compliance monitoring for 40 CFR 60 Subpart GGGa shall be performed as required by 40 CFR 60 Subpart GGGa, including in accordance with the referenced applicable provisions of 40 CFR 60 Subpart VVa (ARM 17.8.1213).

G.20 Compliance monitoring for 40 CFR 63 Subpart CC shall be performed as required by 40 CFR 63 Subpart CC, including in accordance with 40 CFR 63.654, 63.644, and/or 63.645, as appropriate (ARM 17.8.1213).

G.21 Phillips 66 shall maintain records demonstrating compliance with the operational requirements of 40 CFR 60 Subpart Ja (ARM 17.8.1213).

G.22 Phillips 66 shall maintain records, under Phillips 66's control, of all leakage repairs associated with the C-23 compressor seal system. The records shall contain the date, time, repair personnel's initials, and type of repair made (ARM 17.8.1213).

G.23 Phillips 66 shall maintain records of the Saturate Gas Plant LDAR program, as described in Section III.G.13. Records of monitoring and maintenance shall be maintained on site for a minimum of 5 years (ARM 17.8.342, 40 CFR 63 Subpart CC and ARM 17.8.752).

G.24 Phillips 66 shall maintain records of the new LSG project LDAR program, as described in Section III.G.14. Records of monitoring and maintenance shall be maintained on site for a minimum of 5 years (ARM 17.8.342, 40 CFR 63 Subpart CC and ARM 17.8.752).

G.25 As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 9 opacity test on the haul roads to monitor compliance with the 20% opacity limitation as specified in Section III.G.15 (ARM 17.8.1213).

Recordkeeping

G.26 Phillips 66 shall perform all source testing recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

G.27 Phillips 66 shall maintain, under Phillips 66's control, all records required for monitoring compliance, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

G.28 Recordkeeping for equipment leaks shall be performed in accordance with the applicable provisions of 40 CFR 60 Subpart VV, Subpart VVa, and 40 CFR 63.654, 63.644, and/or 63.645, as appropriate (ARM 17.8.340 and 40 CFR 60 Subpart GGG and 40 CFR 60 Subpart GGGa and ARM 17.8.342 and 40 CFR 63 Subpart CC).

Reporting

G.29 Phillips 66 shall submit all source test reports in accordance with Section III.A.2 (ARM 17.8.106).

G.30 The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

G.31 The semiannual reporting shall provide (ARM 17.8.1212):

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

b. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGG during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 60 Subpart GGG required compliance 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 semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 60 Subpart GGGa required compliance 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 63 Subpart CC during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 63 Subpart CC required compliance report or compliance status determination earlier than is required by 40 CFR 60 Subpart CC.

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

H. EU007 – Sulfur Recovery Facility

Operating Scenario 1: Before Startup of Vacuum Improvement Project

- Ammonium Thiosulfate (ATS) Unit,
- Ammonium Sulfide Unit,
- Sulfur Recovery Unit (SRU), and
- Jupiter SRU Flare

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
H.1, H.22, H.49, H.58, H.63, H.64	Jupiter SRU Flare and Claus units	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and as required by 40 CFR 60 Subpart Ja
H.2, H.23, H.50, H.59, H.63, H.64	Claus units	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually and as required by 40 CFR 63 Subpart UUU
H.3, H.25, H.57, H.63, H.64	Jupiter SRU flare	Steam injection, flare height of 213 ft	Inspection & Maintenance Records	Ongoing	Semiannually
H.4, H.5, H.26, H.51, H.62, H.63, H.64	Jupiter SRU flare	Flaring 150 lb/3-hr	Reporting and Corrective Action	As necessary	
H.6, H.27, H.52, H.53, H.63, H.64	Flow rate	Flow rate metering shall use approved standards, methods, accounting procedures, and engineering data	Recordkeeping	Quarterly	Quarterly
H.7, H.28, H.53, H.57, H.63, H.64	Claus SRU	Equipped with a Tail Gas Treating Unit	Recordkeeping	Ongoing	Semiannually
H.8, H.29, H.53, H.63, H.64	SRU Incinerator	Equipped with low NO_x burners	Inspection & Recordkeeping	Semiannually & annually	Semiannually
H.9, H.30, H.31, H.44, H.46, H.48, H.60, H.61, H.63, H.64	SO_2 from SRU/ATS main stack	0.300 ton/day, 25.00 lb/hr	CEMS	Ongoing	
			Method 6/6C (RATA may substitute)	Annually	

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
H.10, H.32, H.48, H.60, H.61, H.63, H.64	NO_x from SRU/ATS main stack	82.85 ton/yr, 454.0 lb/day, 18.92 lb/hr	Method 7	Every 5 years	
H.11, H.33, H.34, H.48, H.54, H.60, H.61, H.63, H.64	PM/PM_{10} from SRU/ATS main stack	34.00 ton/yr, 186.3 lb/day, 7.76 lb/hr	Source Testing	Every 5 years	Semiannually
			CAM	Continuous	
H.12, H.35, H.48, H.60, H.61, H.63, H.64	CO from the SRU/ATS main stack	1.76 ton/yr, 0.40 lb/hr	Method 10	As required by the Department and Section III.A.1	
H.13, H.36, H.53, H.63, H.64	NH_3 from SRU/ATS main stack	58.5 ton/yr, 320.5 lb/day, 13.36 lb/hr	Material Balance	Semiannually	
H.14, H.37, H.48, H.60, H.61, H.63, H.64	Opacity of SRU/ATS main stack and SRU flare	20%	Method 9	As required by the Department and Section III.A.1	
H.15, H.38, H.53, H.63, H.64	SO_2 from SRU flare	0.300 ton/day, 25.00 lb/hr	Material balance	Ongoing	
H.16, H.39, H.53, H.57, H.63, H.64	Jupiter Flare PM and CO	Negligible	Recordkeeping	Semiannually	
H.17, H.40, H.44, H.46, H.48, H.60, H.61, H.63, H.64	H_2S content of the flare fuel gas (and pilot gas)	0.10 grain/dscf on a 3-hour basis	Method 11	As required by the Department and Section III.A.1	
H.18, H.41, H.53, H.57, H.63, H.64	Total SO_2 from SRU/ATS main stack plus the SRU flare	109.5 ton/yr (rolling 12-month average)	Recordkeeping	Quarterly	
H.19, H.42, H.55, H.63, H.64	Sour Water Stripper Diversion	Report Diversion	Ongoing	Semiannually	
H.20, H.43, H.56, H.63, H.64	Vent off-gas from ASD to B304/B102	Must vent except for malfunctions	Ongoing	Semiannually	

Conditions

H.1. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart Ja, as they apply to the Jupiter SRU flare and the Claus units at the Jupiter sulfur recovery facility and any other applicable equipment (ARM 17.8.749 and ARM 17.8.1211).

H.2. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, including the requirement to prepare an OMMP according to the requirements in 40 CFR 63.1574 and operate at all times according to the procedures in the plan (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.3. Jupiter SRU flare must be equipped and operated with a steam injection system (ARM 17.8.752 and ARM 17.8.1211). Flare tip height is to be based at a minimum of 213 feet from grade, plus or minus 3 feet (ARM 17.8.749 and ARM 17.8.1211).

H.4. Phillips 66 shall not allow SO_2 emissions from any 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 of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.5. Except for minor flaring events, Phillips 66 shall minimize SO_2 emissions from flaring. In addition, when flaring of sulfur bearing gases occurs due to a malfunction, Phillips 66 shall take immediate action to correct the malfunction (Board of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.6. Any flow rate metering from upset or malfunctioning process units that are directed to either the refinery flare or the Jupiter SRU flare shall use approved standards, methods, accounting procedures, and engineering data (ARM 17.8.749 and ARM 17.8.1211).

H.7. The Claus SRU shall be equipped with a Tail Gas Treating Unit (TGTU) (ARM 17.8.752 and ARM 17.8.819).

H.8. The Jupiter SRU Incinerator (F-304) shall be equipped with low NO_X burners (ARM 17.8.749 and ARM 17.8.1211).

H.9. SO_2 emissions from the Jupiter SRU/ATS main stack shall be limited to 0.30 ton/day, 25.00 lb/hr and 167 ppm on a rolling 12-hour average basis, corrected to 0% O_2 on a dry basis) (ARM 17.8.749 and ARM 17.8.1211).

H.10. NO_X emissions from the Jupiter SRU/ATS main stack shall be limited to 82.85 ton/yr, 454.0 lb/day, 18.92 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.11. PM_{10} emissions from the Jupiter SRU/ATS main stack shall be limited to 34.00 ton/yr, 186.3 lb/day, 7.76 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.12. CO emissions from the Jupiter SRU/ATS main stack shall be limited to 1.76 ton/yr, 0.40 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.13. NH_3 emissions from the Jupiter SRU/ATS main stack shall be limited to 58.5 ton/yr, 320.5 lb/day, 13.36 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.14. Phillips 66 shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the SRU/ATS main stack or the Jupiter SRU flare that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.749 and ARM 17.8.1211).

H.15. SO_2 emissions from the Jupiter SRU flare shall be limited to 0.30 ton/day, 25.00 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.16. PM and CO emissions from the Jupiter SRU Flare shall be kept to their negligible levels as indicated in the associated permit application (ARM 17.8.749 and ARM 17.8.1211).

H.17. The Jupiter Flare shall not burn any fuel gas that contains H_2S in excess of 162 ppm determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit (ARM 17.8.340, 40 CFR 60 Subpart Ja, ARM 17.8.749 and ARM 17.8.1211).

H.18. Total SO_2 emissions from the SRU/ATS main stack, plus the Jupiter SRU flare, shall not exceed 109.5 ton/yr (rolling 12-month average) (ARM 17.8.749 and ARM 17.8.1211).

H.19. Phillips 66 shall report to the Department any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility (ARM 17.8.749 and ARM 17.8.1211).

H.20. Jupiter shall vent off-gas from the Ammonium Sulfide Unit (ASD) unit operation to the B304/B102 sulfur boiler except during malfunction or maintenance conditions, when the off-gases would be vented to the Jupiter SRU flare (ARM 17.8.749).

H.21. Phillips 66 shall capture and treat or incinerate emissions from its sulfur pits with the other emissions from its sulfur recovery plant. Emissions sent to the incinerator are measured as part of the total emissions exiting the Jupiter Main Stack No. 1 (ARM 17.8.749).

Compliance Demonstration

H.22. Phillips 66 shall comply with the test methods and monitoring requirements of 40 CFR 60 Subpart J and Subpart Ja, as applicable (ARM 17.8.340 and 40 CFR 60 Subpart J and Ja, and ARM 17.8.1213). For the Jupiter SRU Flare, Phillips 66 meets the requirements of 40 CFR 60.107a(e) by use of an Alternative Monitoring Plan approved by EPA (approved January 6, 2015) (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

H.23. Phillips 66 shall meet, as applicable, the requirements of all testing and procedures of ARM 17.8.342, which reference 40 CFR 63 Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, including maintaining records to document conformance with procedures in Phillips 66's required OMMP (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.24. Phillips 66 shall install and operate a flow continuous monitoring system on the Jupiter SRU Flare. Phillips 66 shall maintain records of the duration of all periods in which the rupture disk has been breached. During such periods, Phillips 66 shall also measure or estimate (as appropriate) all SO_2 emissions which result from gases being directed to and combusted in the Jupiter SRU Flare. Emission monitoring shall be subject to 40 CFR 60 § 60.11, 60.13 and Part 60 Appendix A, Appendix B (Performance Specifications 2 and 3) and Appendix F (Quality Assurance/Quality Control) provisions (ARM 17.8.749, ARM 17.8.340, ARM 17.8.1213, and 40 CFR 60 Subpart Ja).

H.25. Phillips 66 shall record any failure in steam injection and any change in flare height for the Jupiter SRU flare, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

H.26. For purposes of determining whether a flaring event greater than 150 pounds of SO_2 per 3-hour period has occurred, Phillips 66 shall maintain records of all activities, other than de minimis activities, that result in SO_2 emissions from the flare (Board of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.27. Phillips 66 shall provide quarterly emission reports for the flare SO_2 emissions based on H_2S concentration information and flow information. The quarterly emission reports shall be submitted within 30 days of the end of each calendar quarter. The quarterly report shall consist of 24-hour calendar day totals per calendar month and shall include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating time during the reporting period;

b. Monitoring downtime that occurred during the reporting period;

c. A summary of excess emissions for each pollutant and averaging period; and

d. Emission estimates for SO_2, other than de minimis activities, from material balance, engineering calculation data, and any emission testing.

H.28. Phillips 66 shall maintain records of the as-built design of the TGTU equipped on the SRU (ARM 17.8.749 and ARM 17.8.1211).

H.29. Phillips 66 shall inspect annually the low NO_X burners on the Jupiter SRU Incinerator (F-304) and record any maintenance or inspections, including the date, circumstance, and operators initials (ARM 17.8.1213).

H.30. Phillips 66 shall equip and operate the Jupiter SRU/ATS main stack with a SO_2 CEMS, an O_2 CEMS and a volumetric flow rate continuous emission rate monitor (ARM 17.8.749 and ARM 17.8.1211).

H.31. Phillips 66 shall use CEMS data to monitor compliance with the SO_2 limitations of Section III.H.9. Phillips 66 shall also perform annual RATAs using Method 6/6C or other Department-approved method (ARM 17.8.1213).

H.32. Phillips 66 shall conduct compliance source tests on the Jupiter SRU Main stack for NO_X to determine compliance with Section III.H.10 in 1998, 2002, and every 5 years thereafter (ARM 17.8.1213).

H.33. Phillips 66 shall use pressure drop across the particulate filters to satisfy the compliance assurance monitoring (CAM) requirements of ARM 17.8 Subchapter 15 for the Jupiter SRU/ATS stack. Operation within the designated indicator ranges is deemed reasonable assurance of on-going compliance with the PM_{10} limitations in Section III.H.11 (see the CAM Plan in Appendix F of this permit) (ARM 17.8.1212).

H.34. In addition to following the CAM Plan, Phillips 66 shall perform source tests on the Jupiter SRU Main stack for PM_{10} to determine compliance with the applicable emission standards in Section III.H.11 in 1998, 2002, and every 5 years thereafter (ARM 17.8.749). The pressure drop indicator range or failure criteria will be updated for the CAM Plan, as necessary, based on data from the source test (ARM 17.8.105, ARM 17.8.106, and ARM 17.8.1213 and ARM 17.8.1504).

H.35. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 10 source test or other Department approved method to monitor compliance with the CO limitations contained in Section III.H.12 (ARM 17.8.1213).

H.36. Phillips 66 shall monitor compliance with Section III.H.13 by performing material balance calculations for ammonia (ARM 17.8.1213).

H.37. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 9 source test to monitor compliance with the limitations contained in Section III.H.14 (ARM 17.8.1213).

H.38. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 11 source test, material balance, or other Department approved method to monitor compliance for the SO_2 limit at the Jupiter SRU flare contained in Section III.H.15 (ARM 17.8.1213).

H.39. Phillips 66 shall inspect the Jupiter SRU flare annually, and record any maintenance or inspections including the date, duration, circumstance, and operators initials to confirm that the flare is operating properly, in order to comply with Section III.H.16 (ARM 17.8.1213).

H.40. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 11 or other Department approved method to monitor compliance with the H_2S limitation contained in Section III.H.17 (ARM 17.8.1213).

H.41. Phillips 66 shall maintain records, under Phillips 66's control, containing total SO_2 emissions from the Jupiter SRU/ATS main stack plus the SRU flare for the year using a rolling 12-month average, to monitor compliance with the limitations in Section III.H.18 (ARM 17.8.1213).

H.42. Phillips 66 shall maintain records any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility (ARM 17.8.749 and ARM 17.8.1211).

H.43. Phillips 66 shall maintain records to confirm that the off-gas from the ASD unit operation is vented as permitted to the B304 / B102 Boiler(s) (ARM 17.8.749 and ARM 17.8.1211).

H.44. Compliance with the emission limitations in Section III.H.9 shall be monitored by utilizing valid data taken from CEMS and other Department-approved sampling methods.

The above does not relieve Phillips 66 from meeting any applicable requirements of 40 CFR 60 Appendices A and B, or other stack testing that may be required by the Department.

Other stack testing may include, but is not limited to, the following air pollutants: SO_2, NO_X, NH_3, CO, PM, PM_{10}, and VOC.

Reporting requirements shall be consistent with 40 CFR Part 60, or as specified by the Department.

SIP CEMS (SO_2) shall be required to be maintained such that they are available and operating at least 90% of the source operating time during any reporting period (quarterly) (ARM 17.8.1213).

H.45. In order to accurately monitor the SO_2 emission rates in pounds per hour for the SRU/ATS Main Stack, Phillips 66 shall perform annual source testing using EPA-approved methods (40 CFR Part 60, Appendix A, Methods 1-4 and 6/6C as appropriate for the Stipulation (STIP) and Exhibit A) or an equivalent method approved by the Department and EPA, and in accordance Section III.A.2 of this permit (ARM 17.8.106).

The annual RATAs required by Section 6(C) and (D) of the STIP may be substituted 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 ((ARM 17.8.749 and ARM 17.8.1211) and Billings/Laurel SO_2 Control Plan, approved into the SIP by EPA on May 2, 2002).

H.46. Phillips 66 shall provide quarterly emission reports from SO_2 emission rate monitors. Emission reporting for SO_2 from all point source locations shall consist of 24-hour calendar day totals per calendar month. The quarterly report shall be submitted within 30 days of the end of the calendar quarter and include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating times during the reporting period;

b. Monitoring downtime that occurred during the reporting period;

c. A summary of excess emissions for each pollutant and averaging period identified under each emission unit; and

d. Reasons for any emissions in excess of those specifically allowed, with mitigative measures utilized and corrective actions taken to prevent a recurrence of the upset situation.

H.47. Phillips 66 shall maintain, on file, documentation and certification of the as-built design of the sulfur pits (ARM 17.8.1213).

Recordkeeping

H.48. Phillips 66 shall perform all source testing recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

H.49. Phillips 66 shall maintain recordkeeping in accordance with 40 CFR 60 Subpart J and Ja, as applicable (ARM 17.8.340 and 40 CFR 60 Subpart J and Ja).

H.50. Phillips 66 shall keep all records as required by 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.51. Phillips 66 shall maintain a record of all flaring events other than flaring caused by de minimis activities. 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 of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.52. Phillips 66 shall maintain, under Phillips 66's control, a record of the monthly inspection and maintenance performed on the flow rate-metering device used on upset or malfunctioning process units that are directed to either the refinery flare or the SRU flare (ARM 17.8.1212).

H.53. Phillips 66 shall maintain, under Phillips 66's control, all records required for compliance demonstration, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

H.54. Phillips 66 shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to ARM 17.8.1512 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under ARM 17.8 Subchapter 15 (ARM 17.8.1212 and ARM 17.8.1513).

H.55. Phillips 66 shall report to the Department any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility. Said excess emission reports shall include the period of diversion, estimate of lost raw materials (H_2S and NH_3), and resultant pollutant emissions, including circumstances explaining the diversion of this stream. Said excess emission reports shall discuss what corrective actions will be taken to prevent recurrences of the situation and what caused the upset. These reports shall address, at a minimum, the requirements of ARM 17.8.110 (ARM 17.8.749 and ARM 17.8.1211).

H.56. Phillips 66 shall report to the Department any time in which the off-gas from the ASD unit is not vented to the B304/B102 boiler, including when the off-gas is vented to the Jupiter SRU flare (ARM 17.8.749 and ARM 17.8.1211).

H.57. Phillips 66 shall maintain records as required by Section III.H.25, III.H.28, III.H.38, III.H.39, III.H.41, and III.H.47 (ARM 17.8.1212).

Reporting

H.58. Phillips 66 shall comply with the applicable reporting requirements of 40 CFR 60 Subpart J and 40 CFR 60 Subpart Ja (ARM 17.8.340 and 40 CFR 60 Subpart J and Ja).

H.59. Phillips 66 shall comply with the applicable reporting requirements of 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.60. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

H.61. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

H.62. For flaring events in excess of 150 lb/3-hr period, Phillips 66 shall comply with the reporting requirements identified in Section (3)(A)(5) of the Exhibit A-1 of the Stipulation (Board of Environmental Review Order Signed on June 12, 1998. This requirement is "State Only").

H.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).

H.64. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. A summary of the records required by Section III.H.25, which shall include the date, duration, circumstance, and operators initials noting any failure in steam injection. Phillips 66 shall also include any notification of any change in flare height for the Jupiter SRU flare.

c. A summary of the records required by Section III.H.52, which shall include the dates that monthly inspection and maintenance was performed on the flow rate-metering device used on upset or malfunctioning process units that are directed to either the refinery flare or the SRU flare.

d. A report of any changes to the as-built design of the TGTU, or statement that no changes have occurred.

e. Dates that Phillips 66 inspected the Jupiter SRU flare and summary of any maintenance performed during the reporting period, as required by Section III.H.39. As inspection is required only once per year, statement that no inspection during the reporting period occurred may be within compliance for a semi-annual reporting period.

f. A summary of the SO_2 compliance demonstration methodology as used in Section III.H.38, with any non-compliance during the semiannual period noted.

g. Dates that reports required by Section III.H.62, regarding flaring events in excess of 150 lb/3-hr period, were made during the reporting period, or statement that no such report was required during the reporting period.

h. Dates that reports required by Section III.H.55, regarding sour water stripper stream, were created during the reporting period, or statement that no such report was required during the reporting period.

i. Dates that reports required by Section III.H.56, regarding off-gas from the ASD unit, were created during the reporting period, or statement that no such report was required during the reporting period.

j. Dates that the quarterly emission reports were submitted as required by Section III.H.46.

k. Statement that no change to the as-built design of the sulfur recovery pits, or submission of an updated drawing if changes have been made.

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

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

Operating Scenario 2: Beginning at Startup of Vacuum Improvement Project

- Ammonium Sulfide Unit,
- Sulfur Recovery Units (SRUs): Modified SRU #1, Existing SRU #2, New SRU #3; and
- Jupiter SRU Flare.

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
H.65, H.86, H.87, H.111, H.113, H.114, H.126, H.131, H.132	Jupiter Main Stack No. 1	SO_2: 25 lb/hr	CEMS	Ongoing	Quarterly
H.65, H.88, H.89, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 1	NO_X: 14.84 lb/hr	Testing concurrent with SO_2 relative accuracy evaluations Rolling 12 month sum determined monthly, based on stack test data and monitored exhaust gas flow	Ongoing	Quarterly and Section III.A.2

H.65, H.88, H.90, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 1	CO: 4.22 lb/hr	Testing concurrent with SO_2 relative accuracy evaluations Rolling 12 month sum determined monthly, based on stack test data and monitored exhaust gas flow	Ongoing	Ongoing
H.65, H.91, H.110, H.112, H.114, H.131, H.132	Jupiter Main Stack No. 1	PM_{10}: 1.61 lb/hr	Stack test data and CAM plan	Ongoing	Quarterly and Section III.A.2
H.65, H.91, H.112, H.114, H.131, H.132	Jupiter Main Stack No. 1	$PM_{2.5}$: 1.61 lb/hr	Stack test data and CAM plan	Ongoing	Quarterly
H.65, H.92, H.114, H.131, H.132	Jupiter Main Stack No. 1	NH_3: 13.36 lb/hr	Rolling 12 month sum determined monthly, based on mass balance	Ongoing	Quarterly
H.65, H.93, H.112, H.125, H.131, H.132	Jupiter Main Stack No. 1	Opacity: 20%	Method 9	As required by the Department and Section III.A.2	Quarterly
H.66,H.95, H.114, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	Must Have Dedicated Stack	Recordkeeping	Ongoing	Semiannually and Section III.A.2
H.67,H.86, H.87, H.113, H.114, H.115, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	SO_2: 18.33 lb/hr	CEMS	Ongoing	Semiannually
H.67, H.88, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	CO: 4.22 lb/hr	Testing concurrent with the SO_2 relative accuracy evaluation	Annual	Quarterly

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
H.67, H.88, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	NO_X: 14.84 lb/hr	Testing concurrent with the SO_2 relative accuracy evaluation	Annual	Semiannually and Section III.A.2
H.67, H.91, H.110, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	PM_{10}: 1.61 lb/hr	Initial Method 201 and 202 Testing CAM Plan	Within 12 months of startup Ongoing	Semiannually
H.67, H.91, H.110, H.112, H.114, H.125, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	$PM_{2.5}$: 1.61 lb/hr	Initial Method 201 and 202 Testing CAM Plan	Within 12 months of startup Ongoing	Semiannually
H.67, H.92, H.114, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	NH_3: 13.36 lb/hr	Mass Balance	Ongoing	Semiannually
H.67, H.93, H.112, H.125, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	Opacity: 20%	Method 9	As required by the Department and Section III.A.1	Semiannually
H.68, H.86, H.87, H.94, H.113, H.114, H.115, H.126, H.131, H.132	Jupiter Main Stack No. 2 (SRU #3)	SO_2: 167 ppmvd on a dry basis at 3% O_2, based on a rolling 12 hr average	CEMS	Ongoing	Quarterly
H.69, H.94, H.115, H.126, H.131, H.132	SRU #1 and #3	NSPS Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
H.70, H.94, H.115, H.126, H.131, H.132	SRU #2	Treat as subject to NSPS Ja as a modified unit	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and 40 CFR 60 Subpart Ja
H.71, H.99, H.119, H.128, H.131, H.132	SRUs	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually and 40 CFR 63 Subpart UUU
H.72, H.86, H.87, H.114, H.115, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	SO_2: 50 TPY determined monthly on a rolling 12 month basis	CEMS	Ongoing	Quarterly
H.72, H.88, H.112, H.114, H.125, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	NO_X: 65 TPY determined monthly on a rolling 12 month basis	Emissions factor derived from source testing	Ongoing	Semiannual

H.72, H.88, H.112, H.114, H.125, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	CO: 18.46 TPY determined monthly on a rolling 12 month basis	Emissions factor derived from source testing	Ongoing	Semiannual
H.72, H.91, H.112, H.114, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	PM_{10}: 7.06 TPY determined monthly on a rolling 12 month basis	Emissions Factor based	Ongoing	Semiannual
H.72, H.91, H.112, H.114, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	$PM_{2.5}$: 7.06 TPY determined monthly on a rolling 12 month basis	Emissions Factor based	Ongoing	Semiannual
H.72, H.92, H.114, H.131, H.132	Combined Jupiter Stack 1 and 2 Emissions	NH_3: 117 TPY determined monthly on a rolling 12 month basis	Mass Balance	Ongoing	Semiannual
H.73, H.94, H.111, H.112, H.131, H.132	Jupiter SRU Flare and Claus units	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	40 CFR 60 Subpart Ja	Semiannually and as required by 40 CFR 60 Subpart Ja
H.74, H.96, H.114, H.131, H.132	Jupiter SRU Flare	Equipped and operated with a steam injection system with flare tip height a minimum of 213 feet from grade, plus or minus 3 feet	Recordkeeping	As necessary	Semiannually
H.75, H.76, H.97, H.116, H.127, H.131, H.132	Jupiter SRU flare	Flaring 150 lb/3-hr	Reporting and Corrective Action	As necessary	Semiannually
H.77, H.98, H.117, H.118, H.131, H.132	Flow rate	Flow rate metering shall use approved standards, methods, accounting procedures, and engineering data	Recordkeeping	Quarterly	Quarterly
H.78, H.100, H.120, H.129, H.131, H.132	Sour Water Stripper Diversion	Report Diversion	Recordkeeping	Ongoing	Semiannually

Conditions

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
H.79, H.101, H.121, H.130, H.131, H.132	Vent ASD Unit off-gas to B304/B102 sulfur boiler except during malfunction or maintenance conditions	Vent off-gas from ASD to B304/B102	Recordkeeping	Ongoing	Semiannually
H.80, H.102, H.122, H.131, H.132	Sulfur Pits	Capture and treat or incinerate emissions	Recordkeeping	Ongoing	Semiannually
H.81, H.114, H.131, H.132	Notification	SRU #1 Modification SRU #3	Reporting	As Required	Semiannually
H.82, H.103, H.114, H.131, H.132	Jupiter SRU Incinerator	Low NOX Burners	Minimum of Annual Inspections	Ongoing	Semiannually
H.83, H.98, H.108, H.112, H.113, H.114, H.116, H.117, H.124, H.125, H.131, H.132	Jupiter SRU flare SO_2 emissions	0.30 ton/day 25 lb/hr	CEMS and RATA	Ongoing (RATA Annually)	Semiannually
H.84, H.105, H.114, H.131, H.132	Jupiter SRU Flare PM and CO Emissions	negligible levels	Inspections / Recordkeeping	Annually	Semiannually
H.85, H.107, H.114, H.131, H.132	Total SO_2 emissions from Jupiter Main Stack No. 1 Jupiter SRU flare	109.5 ton/yr SO_2 on a rolling 12-month basis	Recordkeeping	Ongoing	Quarterly

H.65. Emissions from the Jupiter Main Stack No. 1 shall not exceed the following (ARM 17.8.749):

a. SO_2 emissions: 25 lb/hr, 167 ppmvd at 0% O_2 on a rolling 12-hour average basis

b. CO emissions: 4.22 lb/hr

c. NO_X emissions: 14.84 lb/hr

d. PM_{10} emissions: 1.61 lb/hr

e. $PM_{2.5}$ emissions: 1.61 lb/hr

f. Ammonia emissions: 13.36 lb/hr

g. Opacity: 20% averaged over 6 consecutive minutes (ARM 17.8.304)

H.66. Sulfur Recovery Unit #3 (SRU #3) shall be installed with its own separate emissions stack (Jupiter Main Stack No. 2) (ARM 17.8.749).

H.67. Emissions from SRU #3 (Jupiter Main Stack No. 2) shall not exceed the following:

a. SO_2 emissions: 18.33 lb/hr (ARM 17.8.749, ARM 17.8.752)

b. CO emissions: 4.22 lb/hr (ARM 17.8.752)

c. PM_{10} emissions: 1.61 lb/hr (ARM 17.8.752)

d. $PM_{2.5}$ emissions: 1.61 lb/hr (ARM 17.8.752)

e. Opacity emissions: 20% averaged over 6 consecutive minutes (ARM 17.8.304)

f. Ammonia emissions: 13.36 lb/hr (ARM 17.8.749)

H.68. Phillips 66 shall control SO_2 emissions from SRU #3 by using an oxidation tail gas scrubber process. SO_2 emissions from the SRU #3 (Jupiter Main Stack No. 2) shall not exceed 167 ppmvd (dry basis, at 3% excess oxygen), based on a rolling 12-hour average (ARM 17.8.752).

H.69. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart Ja, as applicable to SRU #1 and SRU #3 (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

H.70. SRU #2 shall be considered subject to 40 CFR 60 Subpart Ja conditions as a modified unit (ARM 17.8.749).

H.71. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart UUU, as applicable to SRU #1, SRU #2, and SRU #3 (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

H.72. Emissions from the Jupiter Main Stack No. 1 and No. 2, combined, shall not exceed the following (ARM 17.8.749 for PSD Avoidance Purposes):

a. SO_2 emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 combined shall not exceed 50.00 tons per year, determined monthly on a rolling 12 month basis;

b. NO_X emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 combined shall not exceed 65.00 tons per year, determined monthly on a rolling 12 month basis;

c. CO emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 combined shall not exceed 18.46 tons per year, determined monthly on a rolling 12 month basis;

d. PM_{10} emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 combined shall not exceed 7.06 tons per year, determined monthly on a rolling 12 month basis;

e. $PM_{2.5}$ emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 combined shall not exceed 7.06 tons per year, determined monthly on a rolling 12 month basis;

f. Ammonia emissions from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 shall not exceed 117 tons per year, determined monthly on a rolling 12 month basis.

H.73. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart Ja, as they apply to the Jupiter SRU flare (ARM 17.8.749, ARM 17.8.340, 40 CFR 60 Subpart Ja, and ARM 17.8.1211). The facility meets the requirements of 40 CFR 60.107a(e) by use of an Alternate Monitoring Plan approved by EPA January 6, 2015 (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

H.74. Jupiter SRU flare must be equipped and operated with a steam injection system (ARM 17.8.752 and ARM 17.8.1211). Flare tip height is to be based at a minimum of 213 feet from grade, plus or minus 3 feet (ARM 17.8.749 and ARM 17.8.1211).

H.75. Phillips 66 shall not allow SO_2 emissions from any 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 of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.76. Except for minor flaring events, Phillips 66 shall minimize SO_2 emissions from flaring. In addition, when flaring of sulfur-bearing gases occurs due to a malfunction, Phillips 66 shall take immediate action to correct the malfunction (Board of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.77. Any flow rate metering from upset or malfunctioning process units that are directed to the Jupiter SRU flare shall use approved standards, methods, accounting procedures, and engineering data (ARM 17.8.749 and ARM 17.8.1211).

H.78. Phillips 66 shall report to the Department any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility (ARM 17.8.749 and ARM 17.8.1211).

H.79. Jupiter shall vent off-gas from the Ammonium Sulfide Unit (ASD) unit operation to the B304/B102 sulfur boiler except during malfunction or maintenance conditions, when the off-gases would be vented to the Jupiter SRU flare (ARM 17.8.749).

H.80. Phillips 66 shall capture and treat or incinerate emissions from its sulfur pits with the other emissions from its sulfur recovery plant. Emissions sent to the incinerator are measured as part of the total emissions exiting the Jupiter Main Stack No. 1 (ARM 17.8.749) and Jupiter Main Stack No. 2 (ARM 17.8.1212).

H.81. Phillips 66 shall provide the Department written notification of startup of the following equipment within 30 days of startup, as determined by the earlier of postmark or email date (ARM 17.8.749):

a. Modified SRU #1

b. SRU #3

H.82. The Jupiter SRU Incinerator (F-304) shall be equipped with low NOx burners (ARM 17.8.749 and ARM 17.8.1211).

H.83. SO_2 emissions from the Jupiter SRU flare shall be limited to 0.30 ton/day, 25.00 lb/hr (ARM 17.8.749 and ARM 17.8.1211).

H.84. PM and CO emissions from the Jupiter SRU Flare shall be kept to their negligible levels as indicated in the associated permit application (ARM 17.8.749 and ARM 17.8.1211)."

H.85. Total SO_2 emissions from Jupiter Main Stack No. 1, plus the Jupiter SRU flare shall not exceed 109.5 ton/yr (rolling 12-month average) (ARM 17.8.749 and ARM 17.8.1211).

Compliance Demonstration

H.86. Phillips 66 shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of any SO_2 emissions into the atmosphere on Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2. The monitors shall include an oxygen monitor for correcting the data for excess air, and flow rate monitors. The CEMS shall meet all applicable requirements of 40 CFR 60 Subpart Ja, which also references 40 CFR 60.13(c) and Performance Specification 2 of Appendix B of 40 CFR 60 (ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

H.87. Daily SO_2 and flow rate data from the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 CEMS shall be reported quarterly. The quarterly report shall include the combined monthly and rolling 12-month sum SO_2 emissions for each calendar month. (ARM 17.8.749). Phillips 66 shall also demonstrate compliance with the hourly SO_2 emissions limitation of Section III.H.67 in the quarterly report by reporting lb/hr values from CEMS data. In quarterly periods where no noncompliance values are observed, a summary of lb/hr values reporting average and maximum values during the reporting period is acceptable (ARM 17.8.1213).

H.88. Phillips 66 shall perform NO_X and CO testing concurrent with the SO_2 relative accuracy evaluations required for CEMS performance testing on the Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 to determine a NO_X and CO emissions factor for use in estimating emissions. Phillips 66 shall perform additional NO_X and/or CO testing as required by the Department (ARM 17.8.749).

H.89. NO_X emissions shall be estimated and recorded monthly, and the rolling 12 month sum calculated and recorded. These data shall be reported with the SO_2 quarterly report (ARM 17.8.749).

H.90. CO emissions shall be estimated and recorded monthly, and the rolling 12 month sum calculated and recorded. These data shall be reported with the SO_2 quarterly report (ARM 17.8.749).

H.91. Phillips 66 shall comply with the CAM Plan requirements of Appendix F (ARM 17.8.1212 and ARM 17.8.1503). Within 12 months of commencement of operation, Phillips 66 shall perform Method 201 and 202 testing, or other equivalent testing as may be approved in writing by the Department, to test PM_{10} and $PM_{2.5}$ emissions. Such test shall also include recording pressure drop across the particulate filters during each run to verify normal operations pressure drop (ARM 17.8.1213, ARM 17.8.1510). PM_{10} and $PM_{2.5}$ emissions shall be estimated and recorded monthly, and the rolling 12 month sum calculated and recorded. These data shall be reported with the SO_2 quarterly report (ARM 17.8.749). Further, as required by the Department and Section III.A.1, Phillips 66 shall perform Method 201 and 202 testing, or other testing as required and approved in writing by the Department (ARM 17.8.1213).

H.92. Ammonia emissions shall be estimated based on mass balance equations, and recorded monthly, along with the rolling 12 month sum for each month. These data shall be reported with the SO_2 quarterly report (ARM 17.8.749).

H.93. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 22 or Method 9 source test to monitor compliance with the opacity limitation contained in Section III.H.65 and Section III. H.67 (ARM 17.8.1213).

H.94. Phillips 66 shall demonstrate compliance with 40 CFR 60 Subpart Ja in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.1213, ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja).

H.95. Phillips 66 shall submit to the Department, within 6 months of completed construction, a statement certifying construction of the SRU #3 stack configuration as presented in the application. Thereafter, Phillips 66 shall demonstrate compliance with Section III.H.66 by adhering to the notification requirements of ARM 17.8.745, which requires notification for any change which includes addition of a new emissions unit, a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation (ARM 17.8.1213).

H.96. Phillips 66 shall record any failure in steam injection and any change in flare height for the Jupiter SRU flare, including the date, duration, circumstance, and operators initials (ARM 17.8.1213).

H.97. For purposes of determining whether a flaring event greater than 150 pounds of SO_2 per 3-hour period has occurred, Phillips 66 shall maintain records of all activities, other than de minimis activities, that result in SO_2 emissions from the flare (Board of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.98. Phillips 66 shall provide quarterly emission reports for the flare SO_2 emissions based on H_2S concentration information and flow information. The quarterly emission reports shall be submitted within 30 days of the end of each calendar quarter. The quarterly report shall consist of 24-hour calendar day totals per calendar month and shall include the following (ARM 17.8.749 and ARM 17.8.1211):

a. Source or unit operating time during the reporting period;

b. Monitoring downtime that occurred during the reporting period;

c. A summary of excess emissions for each pollutant and averaging period; and

d. Emission estimates for SO_2, other than de minimis activities, from material balance, engineering calculation data, and any emission testing.

H.99. Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart UUU as required by 40 CFR 63 Subpart UUU (ARM 17.8.1213, ARM 17.8.342, and 40 CFR 63 Subpart UUU).

H.100. Phillips 66 shall maintain records of any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility (ARM 17.8.749 and ARM 17.8.1211).

H.101. Phillips 66 shall maintain records to confirm that the off-gas from the ASD unit operation is vented as permitted to the B304 / B102 Boiler(s) (ARM 17.8.749 and ARM 17.8.1211).

H.102. Phillips 66 shall maintain, on file, documentation and certification of the as-built design of the sulfur pits.

H.103. Phillips 66 shall inspect annually the low NOX burners on the Jupiter SRU Incinerator (F-304) and record any maintenance or inspections, including the date, circumstance, and operators initials (ARM 17.8.1213).

H.104. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 11 source test, material balance, or other Department approved method to monitor compliance for the SO_2 limit at the Jupiter SRU flare contained in Section III.H.83 (ARM 17.8.1213).

H.105. Phillips 66 shall inspect the Jupiter SRU flare annually, and record any maintenance or inspections including the date, duration, circumstance, and operators initials to confirm that the flare is operating properly, in order to comply with Section III.H.84 (ARM17.8.1213).

H.106. As required by the Department and Section III.A.1, Phillips 66 shall perform a Method 11 or other Department approved method to monitor compliance with the H_2S limitation contained in Section III. H.83 and III.H.73 (ARM 17.8.1213).

H.107. Phillips 66 shall maintain records, under Phillips 66's control, containing total SO_2 emissions from the Jupiter Main Stack No. 1 main stack plus the SRU flare for the year using a rolling 12-month average, to monitor compliance with the limitations in Section III. (ARM 17.8.1213).

H.108. Phillips 66 shall install and operate a flow continuous monitoring system on the Jupiter SRU Flare. Phillips 66 shall maintain records of the duration of all periods in which the rupture

disk has been breached. During such periods, Phillips 66 shall also measure or estimate (as appropriate) all SO_2 emissions which result from gases being directed to and combusted in the Jupiter SRU Flare. Emission monitoring shall be subject to 40 CFR 60 § 60.11,60.13 and Part 60 Appendix A, Appendix B (Performance Specifications 2 and 3) and Appendix F (Quality Assurance/Quality Control) provisions (ARM 17.8.749, ARM 17.8.340, ARM 17.8.1213, and 40 CFR 60 Subpart Ja).

H.109. Phillips 66 shall maintain records of the as-built design of the TGTU equipped on the SRU #1, SRU #2, and SRU #3 (ARM 17.8.749 and ARM 17.8.1211).

H.110. Phillips 66 shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to ARM 17.8.1512 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under ARM 17.8 Subchapter 15 (ARM 17.8.1212 and ARM 17.8.1513).

Recordkeeping

H.111. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 60 Subpart Ja, as applicable (ARM 17.8.340 and 40 CFR 60 Subpart Ja).

H.112. Phillips 66 shall perform all source testing recordkeeping in accordance with the appropriate test method and Section III.A.2 (ARM 17.8.106).

H.113. Phillips 66 shall notify the Department of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel SO_2 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

H.114. Phillips 66 shall maintain, under Phillips 66's control, all records required for compliance demonstration including all supporting information, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

H.115. Phillips 66 shall maintain records in accordance with 40 CFR 60 Subpart Ja (ARM 17.8.1212, ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart Ja). SRU #2 shall comply with 40 CFR 60 Subpart Ja as a modified unit, including recordkeeping requirements (ARM 17.8.1212, 40 CFR 60 Subpart Ja).

H.116. Phillips 66 shall maintain a record of all flaring events other than flaring caused by de minimis activities. 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 of Environmental Review Order signed on June 12, 1998. This requirement is "State Only").

H.117. Phillips 66 shall maintain, under Phillips 66's control, a record of the monthly inspection and maintenance performed on the flow rate-metering device used on upset or malfunctioning process units that are directed to either the refinery flare or the SRU flare (ARM 17.8.1212).

H.118. Phillips 66 shall maintain, under Phillips 66's control, all records required for compliance demonstration, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

H.119. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 63 Subpart UUU (ARM 17.8.1212, ARM 17.8.342, 40 CFR 63 Subpart UUU).

H.120. Phillips 66 shall maintain records any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility (ARM 17.8.749 and ARM 17.8.1211).

H.121. Phillips 66 shall maintain records to confirm that the off-gas from the ASD unit operation is vented as permitted to the B304 / B102 Boiler(s) (ARM 17.8.749 and ARM 17.8.1211).

H.122. Phillips 66 shall maintain, on file, documentation and certification of the as-built design of the sulfur pits (ARM 17.8.1211).

H.123. Phillips 66 shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to ARM 17.8.1512 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under ARM 17.8 Subchapter 15 (ARM 17.8.1212 and ARM 17.8.1513).

H.124. Phillips 66 shall notify the Department in writing of each source test or RATA a minimum of 25 working days prior to the actual testing, unless otherwise specified by the Department (Billings/Laurel S02 Emission Control Plan, approved into the SIP by EPA on May 2, 2002).

Reporting

H.125. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

H.126. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Ja (ARM 17.8.340 and 40 CFR 60 Subpart Ja). SRU #2 shall comply with 40 CFR 60 Subpart Ja as a modified unit including complying with the reporting requirements for such units (ARM 17.8.1213, 40 CFR 60 Subpart Ja).

H.127. For flaring events in excess of 150 lb/3-hr period, Phillips 66 shall comply with the reporting requirements identified in Section (3)(A)(5) of the Exhibit A-1 of the Stipulation (Board of Environmental Review Order Signed on June 12, 1998. This requirement is "State Only").

H.128. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart UUU (ARM 17.8.1212, ARM 17.8.342, 40 CFR 63 Subpart UUU).

H.129. Phillips 66 shall report to the Department any time in which the sour water stripper stream from the refinery is diverted away from the sulfur recovery facility. Said excess emission reports shall include the period of diversion, estimate of lost raw materials (H_2S and NH_3), and resultant pollutant emissions, including circumstances explaining the diversion of this stream. Said excess emission reports shall discuss what corrective actions will be taken to prevent recurrences of the situation and what caused the upset. These reports shall address, at a minimum, the requirements of ARM 17.8.110 (ARM 17.8.749 and ARM 17.8.1211).

H.130. Phillips 66 shall report to the Department any time in which the off-gas from the ASD unit is not vented to the B304/B102 boiler, including when the off-gas is vented to the Jupiter SRU flare (ARM 17.8.749 and ARM 17.8.1211).

H.131. 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.132. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. A brief summary of monitoring data, with all instances of deviations from permit requirements clearly identified, including the following:

1. Reference to quarterly reports or source testing results previously submitted during the reporting period (resubmittal of monitoring data is not required, any report containing noncompliance data should be re-identified as such).

2. Summary of any records of steam injection failures or change in stack height during the reporting period, or statement that no records creation was necessary.

3. Reference to reports made as required during the reporting period regarding flaring events in excess of 150 lb/3-hr period, or statement that no such report was required during the reporting period.

4. A report of any changes to the as-built design of the TGTU, or statement that no changes have occurred.

5. A summary of the records required by Section III.H.96, which shall include the date, duration, circumstance, and operators initials noting any failure in steam injection. Phillips 66 shall also include any notification of any change in flare height for the Jupiter SRU flare.

6. A brief summary of CAM related monitoring data.

7. A summary of NH_3 emissions.

8. A summary of NO_X emissions.

9. A summary of CO emissions.

10. Reference to any source testing conducted during the semi-annual period.

c. A summary of the records required by Section III.H.117, which shall include the dates that monthly inspection and maintenance was performed on the flow rate-metering device used on upset or malfunctioning process units that are directed to either the refinery flare or the SRU flare.

d. A report of any changes to the as-built design of the TGTU, or statement that no changes have occurred.

e. Dates that Phillips 66 inspected the Jupiter SRU flare and summary of any maintenance performed during the reporting period, as required by Section III.H.117. As inspection is required only once per year, statement that no inspection during the reporting period occurred may be within compliance for a semi-annual reporting period.

f. A summary of the SO_2 compliance demonstration methodology as used in Section III.H.38, with any non-compliance during the semiannual period noted.

g. Dates that reports required by Section III.H.127, regarding flaring events in excess of 150 lb/3-hr period, were made during the reporting period, or statement that no such report was required during the reporting period.

h. Dates that reports required by Section III.H.120, regarding sour water stripper stream, were created during the reporting period, or statement that no such report was required during the reporting period.

i. Dates that reports required by Section III.H.130, regarding off-gas from the ASD unit, were created during the reporting period, or statement that no such report was required during the reporting period.

j. Dates that the quarterly emission reports were submitted as required by Section III.H.98.

k. Statement that no change to the as-built design of the sulfur recovery pits, or submission of an updated drawing if changes have been made.

l. A summary of inspections of the Low NO_X Burners of the Jupiter SRU Incinerator (F-304).

m. A summary of inspections on the SRU Flare as required by Section III.H.105.

n. A summary of compliance with the reporting requirements of 40 CFR 60 Subpart Ja.

o. A summary of compliance with the reporting requirements of 40 CFR 63 Subpart UUU.

p. Reference to dates that reports as required by Section III.H.81, or statement that the notification requirement is not yet applicable.

I. EU008 – Storage Tanks (Non-Wastewater)

Refinery MACT 1 Group 1:

- Crude Oil Storage Tanks #1, #2, and T-1102
- Gasoline, Naphtha, and Other Storage Tanks: #3, #5, #7, #9, #11, #12, #16, #21, #41, #42, #45, #46, #49, #52, #55, #72, #75, #80, #86, #87, #102, #110, #851, #2909

Refinery MACT 1 Group 2:

- Asphalt and PMA Storage Tanks #4, #62, #100, #101 & #3201
- Jet A, Distillate, and Diesel Storage Tanks #8, #10, #14, #20, #33, #47, #48, #53, #54, #57, #74
- Residual and Fuel Oil Storage Tanks #6, #17,# 39, #40, #69, #70, #81, #107
- Other Storage Tanks #13, #18, #32, #59, #60, #82, #88, #91, #92, #116, #801

Organic Liquid Distribution (OLD) MACT:

- Proto Gas Tanks #2901 - #2907
- Dye & Other Tanks #78, #79 & #109

Other:

- Propane Tanks
- Tank #36 (out of service)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirement
I.1, I.8, I.15, I.21& I.22	Tank 49	Internal floating roof with double rim seal	Inspection	Annually	Semiannually
I.2, I.9, I.16, I.21& I.22	Tanks 91, 92	40 CFR 60 Subpart K	40 CFR 60.113	As specified	Semiannually
I.3, I.10, I.16, I.21& I.22	Tanks 100, 101, 102	40 CFR 60 Subpart Ka	40 CFR 60.113a and/or 40 CFR 60.114a	As specified	Semiannually
I.4, I.11, I.16, I.20- I.22	Tanks36, 72, 107, 110, 851, 1102, 2909, 3201	40 CFR 60 Subpart Kb	40 CFR 60.113b and/or 40 CFR 60.114b	As specified	40 CFR 60.115b and Semiannually
I.5, I.12, I.17, I.21& I.22	Tank 3201	40 CFR 60 Subpart UU	40 CFR 60.474	As specified	Semiannually
I.6, I.13, I.18, I.21& I.22	Group 1 Storage Vessels	40 CFR 63.646 Subpart CC	40 CFR 63.646, Subpart CC	40 CFR 63.646, Subpart CC	40 CFR 63.654, Subpart CC and Semiannually
I.7, I.14, I.19, I.21& I.22	OLD Storage Vessels	40 CFR 63 Subpart EEEE	40 CFR 63 Subpart EEEE	40 CFR 63 Subpart EEEE	40 CFR 63 Subpart EEEE and Semiannually

Conditions

I.1. Storage tank #49 shall be equipped with an internal floating roof with a double rim seal, liquid-mounted seal, or mechanical shoe seal system for VOC loss control (ARM 17.8.752 and ARM 17.8.1211).

I.2. All volatile organic storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after June 11, 1973, and prior to May 19, 1978, shall comply with requirements of 40 CFR 60 Subpart K. These requirements shall be as specified in 40 CFR 60.110 through 60.113. The affected tanks include, but are not limited to, tanks 91* and 92* (ARM 17.8.340 and 40 CFR 60 Subpart K).

** Currently exempt from all emission control provisions due to vapor pressure of material stored.*

I.3. All volatile organic storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after May 18, 1978, and prior to July 23, 1984, shall comply with requirements of 40 CFR 60 Subpart Ka. These requirements shall be as specified in 40 CFR 60.110a through 60.115a. The affected tanks include, but are not limited to, the following (ARM 17.8.340 and 40 CFR 60 Subpart Ka):

<u>Tank Number</u>
T-100*
T-101*
T-102

** Currently exempt from all emission control provisions due to vapor pressure of material stored.*

I.4. All volatile organic storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after July 23, 1984, shall comply with requirements of 40 CFR 60 Subpart Kb. These requirements shall be as specified in 40 CFR 60.110b through 60.115b. The affected tanks include, but are not limited to, the following (ARM 17.8.340 and 40 CFR 60 Subpart Kb):

Tank Number
T-36 (currently out of service)
T-72
T-107*
T-110*
T-851
T-1102
T-2909
T-3201*

* *Currently exempt from all emission control provisions due to vapor pressure of material stored.*

I.5. The asphalt storage tank T-3201 and any other applicable storage tanks which commenced construction or modification after May 26, 1981, shall comply with all applicable requirements of 40 CFR 60 Subpart UU. Asphalt storage tank T-3201 shall comply with the standards of 40 CFR 60.472(c), including that opacity shall not exceed 0%, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown clear (ARM 17.8.340 and 40 CFR 60 Subpart UU).

I.6. All Group 1 Storage Vessels shall comply with all applicable requirements of 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.7. All applicable (non-gasoline) Storage Vessels, including but not limited to Proto Gas and dye storage tanks, shall comply with all applicable requirements of 40 CFR 63 Subpart EEEE (ARM 17.8.342 and 40 CFR 63 Subpart EEEE).

Compliance Demonstration

I.8. Phillips 66 shall perform annual inspections on Tank #49 to determine integrity of the roof, seal systems associated with the floating roof, and vents (ARM 17.8.1213).

I.9. Phillips 66 shall monitor compliance with Section III.I.2 by complying with 40 CFR 60.113 (ARM 17.8.340 and 40 CFR 60 Subpart K).

I.10. Phillips 66 shall monitor compliance with Section III.I.3 by complying with 40 CFR 60.113a and/or 40 CFR 60.114a (ARM 17.8.340 and 40 CFR 60 Subpart Ka).

I.11. Phillips 66 shall monitor compliance with Section III.I.4 by complying with 40 CFR 60.113b and/or 40 CFR 60.114b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

I.12. Phillips 66 shall monitor compliance with Section III.I.5 by complying with 40 CFR 60. 474 (ARM 17.8.340 and 40 CFR 60 Subpart UU).

I.13. Phillips 66 shall monitor compliance with storage vessel provisions of 40 CFR 63.646 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.14. Phillips 66 shall monitor compliance with storage vessel provisions of 40 CFR 63 Subpart EEEE (ARM 17.8.342 and 40 CFR 63 Subpart EEEE).

Recordkeeping

I.15. Phillips 66 shall maintain, under Phillips 66's control, a record of all inspections performed on Tank #49 as specified in Section III.I.8. This record shall contain the date, time, inspector's initials and the results of the inspection. If corrective action or repairs are made, a summary should be included in the records (ARM 17.8.1212).

I.16. Phillips 66 shall maintain a record, under Phillips 66's control, for the monitoring required by 40 CFR 60.113, 40 CFR 60.115a, 40 CFR 60.115b, and 40 CFR 60.116b (ARM 17.8.340 and 40 CFR 60 Subpart K, Ka, and Kb).

I.17. Phillips 66 shall maintain a record, under Phillips 66's control, for the monitoring required by 40 CFR 60.473 (ARM 17.8.340 and 40 CFR 60 Subpart UU).

I.18. Phillips 66 shall comply with recordkeeping requirements of 40 CFR 63.646 and 63.654 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

I.19. Phillips 66 shall comply with recordkeeping requirements of 40 CFR 63.2390 (ARM 17.8.342 and 40 CFR 63 Subpart EEEE).

Reporting

I.20. Phillips 66 shall submit reports in accordance with 40 CFR 60.115b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

I.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).

I.22. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. Dates that Phillips 66 conducted inspections of Tank #49 to determine integrity of the roof, seal systems associated with the floating roof, and vents. As inspection is required only once per year, statement that no inspection during the reporting period occurred may be within compliance for a semi-annual reporting period.

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

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

J. EU0010 – Wastewater Treatment & Wastewater Storage Tanks

Wastewater Tanks:
- #15 – sour water
- #34, #35 & #164 – Slop Oil
- #4523 - WW Surge

Wastewater Separators:
- #163 – primary separator
- #169 & #170 – secondary separators (Corrugated Plate Interceptor (CPI) Separators)
- #4510 & #4511 – Desalter Break
- #4512 & #4513 – Coker Break
- VIP API Separator Tanks (2)

Oily Water Sewer Drain Systems:
- Coker unit,
- gas oil hydrotreater,
- No. 1 Hydrogen Unit (20.0 MMscfd),
- No. 2 Hydrogen Unit and No. 5 HDS Unit,
- C-23 compressor station,
- Alkylation Unit Butane Defluorinator Project,
- Alkylation Unit Depropanizer Project,
- #3 Sour Water Stripper (SWS),
- South Tank Farm, and
- Associated wastewater tanks

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
J.1, J.11, J.17, J.23, J.27& J.28	Tanks 35	40 CFR 60 Subpart Kb	40 CFR 60.113b and/or 40 CFR 60.114b	As specified	Semiannually
J.2, J.12, J.18, J.24 – J.28	Wastewater Treatment	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	40 CFR 60 Subpart QQQ	Semiannually and 40 CFR 60 Subpart QQQ
J.3, J.13, J.19, J.27& J.28	Wastewater Treatment	40 CFR 61 Subpart FF	40 CFR 61 Subpart FF	40 CFR 61 Subpart FF	Semiannually and 40 CFR 61 Subpart FF
J.4, J.14, J.20, J.27& J.28	Refinery MACT 1 Group 1 Storage Vessels	40 CFR 63 Subpart CC	40 CFR 63.646	40 CFR 63.646	Semiannually and 40 CFR 63 Subpart CC

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
J.5, J.15, J.21, J.27& J.28	Tanks 4510, 4511, 4512, and 4513	Internal floating roof with double rim seals or liquid mounted seal system.	Inspection	Annually	Semiannually
J.6, J.16, J.22, J.27& J.28	CPI Separator Tanks #169 & #170	Carbon Canisters designed and operated to reduce VOC emissions by 95%	Recordkeeping	On-going	Semiannually

Conditions

J.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 requirements of 40 CFR 60 Subpart Kb. These requirements shall be as specified in 40 CFR 60.110b through 60.115b. The affected tanks include, but are not limited to, Tank #35 (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

J.2. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ. This subpart applies to, but is not limited to wastewater separators and oily water sewer drain systems and any other applicable equipment constructed, modified, or reconstructed after May 4, 1987, for requirements not overridden by 40 CFR 63 Subpart CC. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ as applicable to the two (2) API Separator Tanks (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

a. All process drains shall consist of tightly sealed caps or P-leg traps for sewer drains with intermittent flow.

b. The secondary oil/water separator shall be an oil/water (CPI) separator with hydrocarbon collection and recovery equipment.

c. All equipment shall be operated and maintained as required under 40 CFR 60 Subpart QQQ.

J.3. Phillips 66 shall comply with all applicable requirements of 40 CFR 61 Subpart FF. This subpart applies to, but is not limited to, all new or recommissioned wastewater sewer drains associated with the Alkylation Unit Depropanizer Project; the refinery's existing sewer system; #3 SWS Unit, the new individual drain system for the waste stream associated with the No. 2 H_2 Unit and the No. 5 HDS Unit, and tanks 34 and 35 (ARM 17.8.341 and 40 CFR 61 Subpart FF).

J.4. All Group 1 Storage Vessels shall comply with all applicable requirements of 40 CFR 63 Subpart CC, except for those tanks subject to requirements under 40 CFR 60 Subpart Kb (ARM 17.8.342 and 40 CFR 63, Subpart CC).

J.5. Storage tank #4510, #4511, #4512, and #4513 shall be equipped with an internal floating roof with a double rim seal system or liquid mounted seal system for VOC loss control (ARM 17.8.752 and ARM 17.8.1211).

J.6. Phillips 66 shall operate and maintain two (2) CPI separator tanks with carbon canister total VOC controls to comply with 40 CFR 60 Subpart QQQ and 40 CFR 61 Subpart FF regulations. The CPI separators shall be vented to two (2) carbon canisters in series, designed and operated to reduce VOC emissions by 95% or greater, with no detectable emissions from the closed vent system and canisters (ARM 17.8.340; 40 CFR 60 Subpart QQQ; ARM 17.8.341; and 40 CFR 61 Subpart FF).

J.7. The separator bays of the two API Separator Tanks shall be covered and sealed and the vapor from these bays shall be routed to a VOC control device to control VOC emissions with at least a 95% control efficiency (ARM 17.8.752). The VOC control device shall be an activated carbon canister (ARM 17.8.749).

J.8. Phillips 66 shall comply with 40 CFR 63 Subpart CC as applicable to the two API Separator Tanks (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.9. Phillips 66 shall comply with 40 CFR 61 Subpart FF as applicable to the API Separator Tanks (ARM 17.8.341 and 40 CFR 61 Subpart FF).

J.10. Phillips 66 shall permanently remove from current service the Desalter Break Tanks (T-4510 and T4511), the Primary Oil Water Separator (T-163), and the CPI Oil Water Separator (T-169 and T-170) (ARM 17.8.749).

Compliance Demonstration

J.11. Phillips 66 shall monitor compliance with Section III.J.1 by complying with 40 CFR 60.113b and/or 40 CFR 60.114b (ARM 17.8.340 and 40 CFR 60, Subpart Kb).

J.12. Phillips 66 shall meet the requirements of all applicable 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 (ARM 17.8.340 and 40 CFR 60, Subpart QQQ).

J.13. Phillips 66 shall monitor the exhaust vent stream from the wastewater CPI separators carbon-adsorption system (T-169 & T-170 carbon canisters) on a regular schedule according to the requirements contained in 40 CFR 60 Subpart QQQ, Section 60.695(a)(3)(ii) and 40 CFR 61 Subpart FF Section 61.354(d). The existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis, when the wastewater treatment is operational. The time period may be revised by the Department in the event that the carbon absorption system is upgraded or physically altered (ARM 17.8.749).

J.14. Phillips 66 shall monitor compliance with applicable wastewater provisions of 40 CFR 63.647 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.15. Phillips 66 shall perform annual inspections on Tank #4510, #4511, #4512, and #4513 to determine integrity of the roofs, seal systems associated with the floating roofs, and vents (ARM 17.8.1213).

J.16. Phillips 66 shall record any instance that carbon canisters are not used on the CPI Separator Tanks and any instance in which they may be operating without reducing VOC emissions by 95% or greater. The record shall include the date, duration, circumstances of the deviation, and operators initials (ARM 17.8.1213).

Recordkeeping

J.17. Phillips 66 shall maintain a record, under Phillips 66's control, for the monitoring required by 40 CFR 60.115b, and 40 CFR 60.116b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

J.18. Phillips 66 shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 60 Subpart QQQ, for requirements not overridden by 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

J.19. Phillips 66 shall conduct all applicable recordkeeping requirements in accordance with 40 CFR 61 Subpart FF (ARM 17.8.341 and 40 CFR 60, Subpart FF).

J.20. Phillips 66 shall comply with recordkeeping requirements of 40 CFR 63.646 and 63.654 (ARM 17.8.342 and 40 CFR 63 Subpart CC).

J.21. Phillips 66 shall maintain, under Phillips 66's control, a record of all inspections performed on the tanks listed in Section III.J.15. This record shall contain the date, time, inspector's initials and the results of the inspection. If corrective action or repairs are made, a summary should be included in the record (ARM 17.8.1212).

J.22. Phillips 66 shall maintain, under Phillips 66's control, a record as required by Section III.J.16 (ARM 17.8.1212).

Reporting

J.23. Phillips 66 shall submit reports in accordance with 40 CFR 60.115b (ARM 17.8.340 and 40 CFR 60 Subpart Kb).

J.24. Phillips 66 shall provide the Department copies of testing results, monitoring operations, recordkeeping, and report results, upon request of the Department or as specified under 40 CFR 60 Subpart QQQ, Sections 60.693-2, 60.696, 60.697, and 60.698, for requirements not overridden by 40 CFR 63 Subpart CC (ARM 17.8.340 and 40 CFR 60, Subpart QQQ).

J.25. Phillips 66 shall provide the Department written notification of startup of the API Separator Tanks within 30 days of startup, as determined by the earlier of postmark or email date (ARM 17.8.749).

J.26. Phillips 66 shall provide the Department written notification of removal from service the Coker Break Tanks (T-4512 and T4513), the Primary Oil Water Separator (T-163), and the CPI Oil Water Separator (T-169 and T-170) (ARM 17.8.749).

J.27. 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.28. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. Dates that Phillips 66 performed inspections on Tank #4510, #4511, #4512, and #4513 to determine integrity of the roofs, seal systems associated with the floating roofs, and vents. As inspection is required only once per year, statement that no inspection during the reporting period occurred may be within compliance for a semi-annual reporting period.

c. Summary of any records created as required by Section III.J.16, which shall include the date, duration, and circumstances of the deviation.

d. Summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 60 Subpart QQQ required compliance 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 61 Subpart FF during the semi-annual period. This reporting requirement does not require the permittee to submit any 40 CFR 61 Subpart FF required compliance report or compliance status determination earlier than is required by 40 CFR 61 Subpart FF.

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

K. Vacuum Improvement Project Related Piping and Wastewater Component Emissions

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.1,K.7, K.12, K.17, K.21, K.22	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	40 CFR 60 Subpart GGGa	Semiannual and 40 CFR 60 Subpart GGGa
K.2,K.8,K.13, K.18, K.21, K.22	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
K.3,K.8,K.13, K.18, K.21, K.22	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
K.4, K.9, K.14, K.19, K.21, K.22	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
K.5, K.10, K.15, K.20, K.21, K.22	40 CFR 61 Subpart FF	40 CFR 61 Subpart FF	40 CFR 61 Subpart FF	40 CFR 61 Subpart FF	Semiannual and 40 CFR 61 Subpart FF

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
	Piping Components	Notification and final estimated component count	Report and recordkeeping	Within 180 days of completion and as necessary	Semiannual

Conditions

K.1. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart GGGa as applicable to the equipment in the Small CTU, Large CTU, Vacuum Unit, No. 2 HDS Unit, and No. 4 HDS Unit (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.2. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ as applicable to the new individual drain system and the aggregate facility as described in the subpart, installed in the Vacuum Unit (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.3. Phillips 66 shall comply with all applicable requirements of 40 CFR 60 Subpart QQQ as applicable to the modified individual drain system in the No. 2 HDS Unit (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.4. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart CC including as applicable to piping components in the Large Crude Topping/Vacuum Unit, the Small Crude Topping Unit, the No. 2 HDS Unit, and the No. 4 HDS Unit (ARM 17.8.752, ARM 17.8.340 and 40 CFR 60 Subpart GGGa; ARM 17.8.752, ARM 17.8.342 and 40 CFR 63 Subpart CC).

K.5. Phillips 66 shall comply with 40 CFR 61 Subpart FF as applicable to individual drain systems (ARM 17.8.341 and 40 CFR 61 Subpart FF).

K.6. Phillips 66 shall provide written notification of completion, and provide the Department with a final estimated count of components, organized by component type and associated Unit (Large Crude Topping/Vacuum Unit, the Small Crude Topping Unit, the No. 2 HDS Unit, and the No. 4 HDS Unit), within 180 days of completion of piping associated with each unit, as determined by the earlier of email date or postmark date (ARM 17.8.749).

Compliance Demonstration

K.7. Phillips 66 shall demonstrate compliance with 40 CFR 60 Subpart GGGa as required by 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.8. Phillips 66 shall demonstrate compliance with 40 CFR 60 Subpart QQQ as required by 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.9. Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart CC as required by 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

K.10. Phillips 66 shall demonstrate compliance with 40 CFR 61 Subpart FF as required by 40 CFR 61 Subpart FF (ARM 17.8.341 and 40 CFR 61 Subpart FF).

K.11. Phillips 66 shall maintain on-site records of notification made as required by Section III.K.6 for a period of 5 years from the date of notification (ARM 17.8.1212).

Recordkeeping

K.12. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.13. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.14. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

K.15. Phillips 66 shall comply with all applicable recordkeeping requirements of 40 CFR 61 Subpart FF (ARM 17.8.341 and 40 CFR 61 Subpart FF).

K.16. Phillips 66 shall maintain records required by Section III.K.11 available on-site (ARM 17.8.1212).

Reporting

K.17. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart GGGa (ARM 17.8.340 and 40 CFR 60 Subpart GGGa).

K.18. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 60 Subpart QQQ (ARM 17.8.340 and 40 CFR 60 Subpart QQQ).

K.19. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 63 Subpart CC (ARM 17.8.342 and 40 CFR 63 Subpart CC).

K.20. Phillips 66 shall comply with all applicable reporting requirements of 40 CFR 61 Subpart FF (ARM 17.8.341 and 40 CFR 61 Subpart FF).

K.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).

K.22. The semiannual reporting shall provide (ARM 17.8.1212):

a. A summary of compliance with the reporting requirements of 40 CFR 60 Subpart GGGa

b. A summary of compliance with the reporting requirements of 40 CFR 60 Subpart QQQ

c. A summary of compliance with the reporting requirements of 40 CFR 63 Subpart CC

d. A summary of compliance with the reporting requirements of 40 CFR 61 Subpart FF

e. Reference to the date that submittal of notification required by Section III.K.6 was made

L. EU0011 – Miscellaneous Process Vents

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
L1, L3, L5, L7, L8	Miscellaneous Process Vents	40 CFR 63 Subpart CC	40 CFR 63.644 & 645	40 CFR 63.644 & 645	40 CFR 63.654
L2 L4, L6– L8	CO Emissions - No. 1 & No. 2 H_2 Units PSA Off-gas Vents	Document number and estimated emissions	Recordkeeping	Monthly	Semiannual

Conditions

L1. Phillips 66 shall comply with all applicable requirements of 40 CFR 63.643 as they apply to the units required to comply with the Miscellaneous Process Vents (ARM 17.8.342 and 40 CFR 63 Subpart CC).

L2. Phillips 66 shall document, by month, the number of PSA off-gas venting occurrences and the estimated CO emissions from each venting occurrence, by the No.1 H_2 Unit PSA Off-gas Vent and the No.2 H_2 Unit PSA Off-gas Vent (ARM 17.8.749 and ARM 17.8.1211).

Compliance Demonstration

L3. Compliance monitoring for 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).

L4. Phillips 66 shall document, by month, the number of PSA off-gas venting occurrences and the estimated CO emissions from each venting occurrence by the by the No.1 H_2 Unit PSA Off-gas vent and the No.2 H_2 Unit PSA Off-gas vent. By the 30th day of each month, Phillips 66 shall total the number of PSA off-gas venting occurrences and the estimated CO emissions from each venting occurrence by each vent during the previous month. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Recordkeeping

L5. Recordkeeping for 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).

L6. Phillips 66 shall maintain, under Phillips 66's control, all records required for monitoring compliance, shall make all records available to Department personnel during inspections, and shall submit the records to the Department upon request (ARM 17.8.1212).

Reporting

L7. The annual compliance certification report required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

L8. The semiannual reporting shall provide (ARM 17.8.1212):

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

b. The number of PSA off-gas venting occurrences by month and the estimated monthly CO emissions, by the No.1 H_2 Unit PSA Off-gas Vent and the No.2 H_2 Unit PSA Off-Gas Vent.

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

M. EU012 –Catalytic Reforming Units 1 & 2

Catalytic Reforming Units #1 & #2

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
M.1, M.3, M.6, M.7, M.9, M.10	Catalytic Reforming Units	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	40 CFR 63 Subpart UUU	Semiannually
M.2, M.4, M.5, M.6, M.8 – M.10	PM, Industrial Processes	$E= 4.10 * P^{0.67}$ or $E= 55 * P^{0.11} - 40$	Method 5	As required by the Department and Section III.A.1	

Conditions

M.1. Phillips 66 shall comply with all applicable requirements of 40 CFR 63 Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, including the requirement to prepare an Operation, Maintenance, and Monitoring Plan (OMMP) according to the requirements in 40 CFR 63.1574 and operate at all times according to the procedures in the plan. Catalytic Reforming Unit #2 is subject to the Subpart UUU requirements. Catalytic Reforming Unit #1 is not subject as long as the reformer is dormant or the catalyst is regenerated off-site (ARM 17.8.342; and 40 CFR 63 Subpart UUU).

M.2. Phillips 66 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 (ARM 17.8.310).

Compliance Demonstration

M.3. Phillips 66 shall meet, as applicable, the requirements of all testing and procedures of ARM 17.8.342, which reference 40 CFR 63 Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, including maintaining records to document conformance with procedures in Phillips 66's required OMMP (ARM 17.8.342; and 40 CFR 63 Subpart UUU).

M.4. In accordance with Section III.A.1 and as required by the Department, Phillips 66 shall perform Method 5 testing or other Department approved testing on the Catalytic Reforming Units 1 & 2, to monitor compliance with PM limitations in Section III.M.2 (ARM 17.8.1213).

Recordkeeping

M.5. All source test recordkeeping shall be performed in accordance with the test method being used and Section III.A.2 (ARM 17.8.106).

M.6. Recordkeeping compiled for purposes of monitoring compliance with emission limits shall be retained by Phillips 66 for a minimum of 5-years (ARM 17.8.1212).

M.7. Phillips 66 shall keep all records as required by 40 CFR 63 Subpart UUU (ARM 17.8.342 and 40 CFR 63 Subpart UUU).

Reporting

M.8. All source test reports shall be submitted to the Department in accordance with Section III.A.2 (ARM 17.8.106).

M.9. 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.10. The semiannual reporting shall provide (ARM 17.8.1212):

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

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

N. EU013 – Backup Coke Crusher (CG3810)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
N.1, N.2, N.3, N.4, N.5, N.6	Operational Restriction	No simultaneous operation	Recordkeeping	Ongoing	Semiannually

Conditions

N.1. The Coke Crusher and the Backup Coke Crusher shall not be operated simultaneously (ARM 17.8.749).

Compliance Demonstration

N.2. Phillips 66 shall maintain operating records demonstrating the time periods when the Coke Crusher and the Backup Coke Crusher are operated (ARM 17.8.1212). Phillips 66 shall document, annually, the number of operational hours of the Backup Coke Crusher (ARM 17.8.749).

Recordkeeping

N.3. All records shall be maintained on-site for a minimum of 5 years and available to the Department upon request (ARM 17.8.1212).

N.4. The records required by Section III.N.2 shall include (ARM 17.8.1212)

a. The date and timeframe that the coke crusher operates.

b. The date and timeframe that the backup coke crusher operates and reason that the coke crusher is not operable.

Reporting

N.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).

N.6. The semiannual reporting shall provide (ARM 17.8.1212):

a. A summary of records kept as required by Section III.N.4, which shall include the dates and timeframes that the backup coke crusher operates and reason that the coke crusher is not operable, during the reporting period.

O. EU014 - Stationary Reciprocating Internal Combustion Engines

Backup Coke Crusher Engine
Cryo Backup Air Compressor Engine
Storm Water to Holding Pond Pump Engine
Boiler House Backup Air Compressor Engine

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
O.1, O.5, O.9, O.13, O.15, O.16	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	Semiannually
O.2, O.6, O.10, O.14, O.15, O.16	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	40 CFR 63 Subpart ZZZZ	
O.3, O.7. O.11, O.15, O.16	Max hp: Backup Coke Crusher Engine (CG3810)	300 hp (EPA Certified Tier 3 or Higher)	Recordkeeping	Ongoing	
O.4, O.8, O.12, O.15, O.16	Ultra-Low Sulfur Diesel: Backup Coke Crusher Engine (CG3810)	0.0015% sulfur content	Recordkeeping	Ongoing	

Conditions

O.1. Phillips 66 shall comply with the applicable requirements of 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Coke Crusher Backup) (ARM 17.8.340 and 40 CFR 60 Subpart IIII).

O.2. Phillips 66 shall comply with the applicable requirements 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (ARM 17.8.342 and 40 CFR 63 Subpart ZZZZ).

O.3. Engine associated with CG3810 shall not exceed a horsepower rating of 300 horsepower and shall have an EPA certification of Tier 3 or higher (ARM 17.8.749).

O.4. Phillips 66 shall use only ultra-low-sulfur diesel fuel with a sulfur content less than or equal to 0.0015% in the engine associated with CG3810 (ARM 17.8.752).

Compliance Demonstration

O.5. Phillips 66 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).

O.6. Phillips 66 shall demonstrate compliance with 40 CFR 63 Subpart ZZZZ through the applicable compliance requirements of 40 CFR 63 Subpart ZZZZ, including any applicable requirements in the tabulated initial and continuous compliance requirements of Table 5 and Table 6 of 40 CFR 63 Subpart ZZZZ, respectively (ARM 17.8.342 and 40 CFR 63 Subpart ZZZZ).

O.7. Phillips 66 shall demonstrate compliance with the horsepower rating and EPA certification limitations of Section III.O.3 by keeping records of manufacturer specification sheets demonstrating maximum rated horsepower and EPA Tier 3 specification (ARM 17.8.1212).

O.8. Phillips 66 shall document, annually, the maximum sulfur content of the diesel fuel used by the engines for the previous calendar year. Vendor specifications or certification that the fuels met the maximum sulfur content allowed by the motor fuel regulations (40 CFR Part 80) will satisfy this requirement (ARM 17.8.749).

Recordkeeping

O.9. Phillips 66 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).

O.10. Phillips 66 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).

O.11. Phillips 66 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, Phillips 66 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).

O.12. The records required by Section III.O.8 shall be maintained on-site for a minimum of 5 years (ARM 17.8.1212).

Reporting

O.13. Phillips 66 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 .

O.14. Phillips 66 shall comply with the applicable notification and reporting requirements of 40 CFR 63 Subpart ZZZZ, including any applicable requirements of 40 CFR 63.6650.

O.15. The semiannual reporting shall provide (ARM 17.8.1212):

a. Statement of demonstration methodology regarding the maximum sulfur content of diesel fuel fired in the engines.

b. Statement of any engine associated with CG3810 which was or is located on-site and which does not have engine specification sheets located on-site.

c. 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.

d. 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.

O.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).

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 which are administrated by the Air Resources Management Bureau of the Department of Environmental Quality.

Rule Citation	Reason
ARM 17.8.320, ARM 17.8.321, ARM 17.8.323, ARM 17.8 331, ARM 17.8.332, ARM 17.8.333, and ARM 17.8.334.	These rules are not applicable because the facility is not listed in the source category cited or does not have the specific emissions unit cited in the rules.
40 CFR 60, Subparts B, C, Ca, Cb 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, Subparts WW 40 CFR 60, Subparts AAA- DDD 40 CFR 60, Subparts FFF 40 CFR 60, Subparts HHH-LLL 40 CFR 60, Subparts NNN-PPP 40 CFR 60, Subparts RRR-WWW	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 40 CFR 61, Subparts O-R 40 CFR 61, Subpart T 40 CFR 61, Subparts V-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-I 40 CFR 63, Subparts L-O 40 CFR 63, Subpart Q 40 CFR 63, Subpart T-Y 40 CFR 63, Subparts DD-EE 40 CFR 63, Subpart GG	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, Subparts G-H	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

Rule Citation	Reason
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.

B. Emissions Units

The permit application identified applicable requirements: non-applicable requirements for individual or specific emissions units were not listed. The Department 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 the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department 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).

   d. Such other facts as the Department 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 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 the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA.

f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA.

g. The ability of the Department 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 the Department 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.

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 Appendix 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 the Department 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.

   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 the Department in accordance with the malfunction reporting requirements under ARM 17.8.110.

3. For all other deviations, deviations shall be reported to the Department 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) and §1214(5), (6)&(8)

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:

    a. An emergency occurred and the permittee can identify the cause(s) of the emergency.

    b. The permitted facility was at the time being properly operated.

    c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit.

    d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(b). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

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 the Department 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.

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, the Department 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, the Department 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 a Montana Air Quality 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.

    e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.

2. The permittee and the Department 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. The Department has not objected to such change.

    c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition.

    d. The permittee provides contemporaneous written notice to the Department 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.

    d. Any other change determined by the Department 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)

1. This permit may be reopened and revised under the following circumstances:

    a. 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).

    b. 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.

c. The Department 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.

d. The administrator or the Department 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 the Department 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, the Department 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 the Department 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 the Department 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 ARM17.8.1214 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 the Department 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 the Department 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 the Department 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.

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 the Department 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, Part 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.

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 the Department 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 Appendix of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

Appendix A INSIGNIFICANT EMISSIONS UNITS

Disclaimer: The information in this appendix is not state or federally enforceable, but is presented to assist Phillips 66, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emissions unit located within a source that: (i) has a potential to emit less than five 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 section 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 Department received an update to the June 12, 1996 application on May 3, 2000 in which all references to insignificant sources were either moved to significant units or deleted from the previous list.

<u>The following insignificant emitting units are associated with the Vacuum Improvement Project:</u>

- Molten Sulfur Storage Tank (V-117)
- Molten Sulfur Storage Tank (V-355)
- Molten Sulfur Storage Tank (V-370)
- Molten Sulfur Railcar and Tank Truck Loading

<u>The following insignificant emitting units were constructed in association with the NaHS Project:</u>

- NaHS Storage Tanks (V-712 and V-713)
- NaHS Railcar and Tank Truck Loading

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 Phillips 66.

(d) requires changes in monitoring or reporting requirements that the Department 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 the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225.

(f) incorporates any other type of change which the Department 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 emissions units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department 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 Montana Air Quality Permit issued by the Department 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 Section 7411 of the FCAA, including Section 7411(d).

(d) any standard or other requirement under Section 7412 of the FCAA, including any requirement concerning accident prevention under Section 7412(r)(7), but excluding the contents of any risk management plan required under Section 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 Section 7661c(b) or Section 7414(a)(3) of the FCAA.

(g) any standard or other requirement governing solid waste incineration, under Section 7429 of the FCAA.

(h) any standard or other requirement for consumer and commercial products, under Section 7511b(e) of the FCAA.

(i) any standard or other requirement for tank vessels, under Section 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 Section 7661c(e) of the FCAA.

(l) any federally enforceable term or condition of any air quality open burning permit issued by the Department 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 Section 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 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 Section 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emissions 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 Montana Air Quality Permit issued by the Department 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 Section 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.

(e) any pollutant subject to a standard or other requirement established or promulgated under Section 7412 of the FCAA, including but not limited to the following:

(i) any pollutant subject to requirements under Section 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Section 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 Section 7412(e) of the FCAA.

(ii) any pollutant for which the requirements of Section 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Section 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).

(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:

ARM	Administrative Rules of Montana
ASD	Ammonium Sulfide Unit
ASTM	American Society of Testing Materials
ATS	Ammonium Thiosulfate
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CO	carbon monoxide
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
FGR	Flue Gas Recirculation
FGRS	Fuel Gas Recovery System
GOHDS	Gas Oil Hydrodesulfurizer
gr	grains
HAP	hazardous air pollutant
HDS	hydrodesulfurization unit
IEU	insignificant emissions unit
LDAR	leak detection and repair
LSG	low sulfur gasoline
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MMBTU	million British Thermal Units
NOx	oxides of nitrogen
NO_2	nitrogen dioxide
O_2	oxygen
OMMP	Operation, Maintenance, and Monitoring Plan
Pb	lead
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or less
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 microns or less
ppmvd	parts per million on a dry volumetric basis
PSA	pressure swing adsorption
psi	pounds per square inch
RATA	Relative Accuracy Test Audit
RCFA	Root Cause Failure Analysis
RFG	refinery fuel gas
scf	standard cubic feet
SIC	Source Industrial Classification
SIP	State Implementation Plan

SO_2	sulfur dioxide
SOx	oxides of sulfur
SRU	sulfur recovery unit
tpy	tons per year
ULNB	ultra-low NO_X burner(s)
U.S.C.	United States Code
VE	visible emissions
VOC	volatile organic compound(s)

Appendix C NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901

United States EPA
Air Program Coordinator
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

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
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 Phillips 66, permitting authority, inspectors, and the public.

1. **Direction to Plant:** 401 South 23rd Street, Billings Montana, 59103

2. **Safety Equipment Required:** Phillips 66 has an extensive safety orientation package that inspectors and/or visitors must participate in.

   A safety video must be watched. Electronic Temporary Identification Cards are issued. Safety equipment such as fire-retardant coats, safety glasses, ear plugs, H_2S monitors are all available for visitors. Steel-toed boots are optional but recommended when on site. Substantial footwear is required.

3. **Facility Plot Plan**: A facility plot plan was submitted with the original application on June 12, 1996.

Appendix E June 12, 1998 Board Order Adopting an SO_2 Control Plan

The June 12, 1998 Board Order Adopting an SO_2 Control Plan remain as applicable requirements as stated in the Title V Operating Permit. To receive a hard copy of this appendix, please contact:

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

Appendix F CAM Plan for Jupiter Sulfur Plant

CAM Plan for PM_{10} and $PM_{2.5}$ Emissions from SRU No. 1, SRU No. 2, and SRU No. 3

A compliance assurance monitoring (CAM) plan is required for the particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}) emissions and the particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers ($PM_{2.5}$) emissions from Sulfur Recovery Unit (SRU) No. 1, SRU No. 2, and SRU No. 3 pursuant to the Administrative Rules of Montana (ARM) 17.8 Subchapter 15 (Compliance Assurance Monitoring). This CAM plan is required for SRU No. 1, SRU No. 2, and SRU No. 3 due to the following factors:

- They are located at a major source required to obtain a Title V permit;
- They are subject to federally enforceable PM_{10} and $PM_{2.5}$ emission limits, respectively;
- Each has pre-control device potential to emit PM_{10} and $PM_{2.5}$ emission rates, respectively, greater than major source thresholds;
- Each uses a control device that is not inherent to the production process as the means to control both PM_{10} and $PM_{2.5}$ emissions;
- The applicable PM_{10} and $PM_{2.5}$ emission limits are not limitations proposed by the United States Environmental Protection Agency after November 15, 1990 pursuant to Section 111 (NSPS) or Section 112 (NESHAP/MACT) of the Clean Air Act; and
- For SRU No. 1 and SRU No. 2, the relevant Title V permit (Title V Permit No. OP2619-01) did not specify a continuous compliance determination method for the applicable PM_{10} and $PM_{2.5}$ emission limits.

The Vacuum Improvement Project, which was authorized by the Montana Department of Environmental Quality with the issuance of Permit No. 2619-32 on January 31, 2015, proposes modifications to SRU No. 1 and the construction of SRU No. 3. SRU No. 1 is currently equipped with two gas filters prior to discharging to Jupiter Main Stack No. 1. Upon completion of the Vacuum Improvement Project, SRU No. 1 will be equipped with three gas filters prior to discharging to the same stack. SRU No. 2 is equipped with two gas filters prior to discharging to Jupiter Main Stack No. 1. The Vacuum Improvement Project will not impact the number of SRU No. 2 gas filters. SRU No. 3 will be equipped with three gas filters prior to discharging to Jupiter Main Stack No. 2. Because SRU No. 1, SRU No. 2, and SRU No. 3 are each equipped with more than one gas filter, a malfunctioning gas filter can be isolated and serviced while the relevant SRU remains on-line.

Currently, Jupiter Main Stack No. 1 is subject to the following PM_{10} emission limits: 34.00 ton/yr, 186.3 lb/day, and 7.76 lb/hr. Upon startup of modified SRU No. 1, Jupiter Main Stack No. 1 will be subject to the following PM_{10} and $PM_{2.5}$ emission limits, respectively: 1.61 lb/hr and 1.61 lb/hr. Jupiter Main Stack No. 2 will be subject to the following PM_{10} and $PM_{2.5}$ emission limits, respectively: 1.61 lb/hr and 1.61 lb/hr. Additionally, upon startup of modified SRU No. 1 and new SRU No. 3, the total emissions from Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 will be subject to the following PM_{10} and $PM_{2.5}$ emission limits, respectively: 7.06 tpy and 7.06 tpy.

The most recent $PM_{10}/PM_{2.5}$ test performed on Jupiter Main Stack No. 1 was in October 2012. The average of the three test runs showed $PM_{10}/PM_{2.5}$ emissions of 0.50 lb/hr. These results are well below the currently effective emission limit of 7.76 lb/hr and the future emission limits of 1.61 lb/hr and 7.06 tpy. The gases exiting Jupiter Main Stack No. 2 are expected to have PM_{10} and $PM_{2.5}$ concentrations equivalent to Jupiter Main Stack No. 1, and Jupiter Main Stack No. 2 is expected to have a flow rate equal to approximately 60% of the Jupiter Main Stack No. 1 flow rate.

Compliance with the pre-Vacuum Improvement Project and the post-Vacuum Improvement Project PM_{10} and $PM_{2.5}$ emission limits contained in the Phillips 66 Billings Refinery Title V permit for Jupiter Main Stack No. 1 and Jupiter Main Stack No. 2 will be maintained by observing the respective pressure drop across each set of gas filters installed on SRU No. 1, SRU No. 2, and SRU No.3. These gas filter pressure drop data will be recorded in the Phillips 66 Billings Refinery's PI data management system, which also provides data archiving functions.

Phillips 66 plans to complete the construction of SRU No. 3 before completing the modification of SRU No. 1. Prior to the startup of modified SRU No. 1, currently effective pressure drop indicator ranges will be used for the gas filters installed on SRU No. 1 and SRU No. 2. During the time period between the startup of modified SRU No. 1 and the subsequent PM_{10} and $PM_{2.5}$ testing of Jupiter Main Stack No. 1, Phillips 66 will use appropriate design basis pressure drop indicator ranges for the gas filters installed on the modified version of SRU No. 1 and the currently effective pressure drop indicator ranges for the SRU No. 2 gas filters. Upon completion of the PM_{10} and $PM_{2.5}$ testing of Jupiter Main Stack No. 1, Phillips 66 will use pressure drop indicator ranges derived from that testing for the SRU No. 1 and SRU No. 2 gas filters, respectively. Prior to the PM_{10} and $PM_{2.5}$ testing of Jupiter Main Stack No. 2, which will occur at the same time as the previously discussed PM_{10} and $PM_{2.5}$ testing of Jupiter Main Stack No. 1, Phillips 66 will use appropriate design basis pressure drop indicator ranges for the gas filters installed on SRU No. 3. After completing the referenced PM_{10} and $PM_{2.5}$ testing, Phillips 66 will use pressure drop indicator ranges derived from that testing for the SRU No. 3 gas filters.

Operating experience has shown that a malfunction has likely occurred in one or more of the gas filters when the pressure drop across the gas filters suddenly decreases. Previous gas filter malfunctions have occurred when the filter media is physically damaged or ruptured, such that the damage allows the exhaust stream to bypass the filter media. When this occurs, the pressure drop across the gas filter media decreases significantly and quickly.

When the data indicate that a pressure drop decrease has occurred that is outside the normal range of pressure drop data variability, the Jupiter operations personnel will make a visual observation of the Jupiter Main Stack No. 1 plume or the Jupiter Main Stack No. 2 plume, as applicable, for confirmation of a gas filter malfunction.

If the visual observation of the plume confirms that a malfunction of the gas filters has occurred, Jupiter operations personnel must immediately begin to gather information for the purposes of diagnosing and correcting the cause of the malfunction. In addition, operations must, to the extent practicable, take steps to minimize PM_{10} and $PM_{2.5}$ emissions during these periods of gas filter malfunction.

If the lack of ambient light and/or extremely cloudy conditions preclude the visual confirmation of a gas filter malfunction, operations is to proceed under the assumption that a gas filter malfunction has occurred, and must continue to gather information for the purposes of diagnosing and

correcting the cause of the malfunction. In addition, operations must, to the extent practicable, take steps to minimize PM_{10} and $PM_{2.5}$ emissions during these periods of gas filter malfunction or suspected gas filter malfunction.

When the above-described malfunction or suspected malfunction occurs on the SRU No. 1, SRU No. 2, or SRU No. 3 gas filters, the Jupiter operations personnel are to follow prescribed communication steps, which are outside the scope of this document.

Appendix G Alternate Operating Scenario - GOHDS Outage Plan

Gas Oil Hydrotreater Outage Plan

Revision 5.1
March 15, 2006

ConocoPhillips
Billings Refinery

Billings, Montana

15-Mar-06
Version 5

Introduction

In accordance with the Consent Decree between Conoco Inc. and the United States and certain States (Civil Action H-01-4430, as amended and entered on August 2, 2003), Conoco (now ConocoPhillips) submitted Gas Oil Hydrotreater (GOH) outage plans for the Billings Refinery to minimize emissions of NOx and SO_2 during GOH outages from the FCC unit. These were submitted to the EPA on June 17, 2002. The EPA responded in a letter dated March 1, 2005 that the plan did not meet their approval. The following GOH outage plan is submitted to address EPA comments and replaces the plan submitted previously.

SO_2 and NOx emissions from an FCCU primarily result from organic sulfur and nitrogen compounds in the FCCU feedstock. Hydrotreating the FCCU feed reduces the quantity of sulfur and nitrogen to the FCCU, thus potentially lowering the emissions of SO_2 and NOx. Because FCC Feed GO Hydrotreaters do not have 100% on stream efficiency, ConocoPhillips and EPA have agreed to a program to minimize FCCU emissions as much as practicable during GOH outages.

Paragraphs 27 and 41 of the Consent Decree stipulate that short-term NOx and SO_2 emission limits do not apply during GOH outages provided that ConocoPhillips:

- Maintain and operate the Billings Refinery FCCU in a manner consistent with good air pollution control practices for minimizing emissions during a GOH outage, and;
- Submit a plan for EPA approval that describes the steps that the Billings Refinery will take to minimize FCCU emissions in the event of a planned or unplanned GOH outage.
- Follow the submitted plan

Under the provisions of Paragraphs 27 and 41, ConocoPhillips reserves the right to propose alternative emissions limits and/or the exclusion of the NOx and SO_2 emissions during periods of GOH outages in the 365-day rolling average limit as part of the limit setting process in the Consent Decree.

For the purposes of this plan, a GOH outage or "Hydrotreater Outage" shall mean the period of time during which the operation of an FCCU is affected as a result of catalyst change-out operations or shutdowns required by ASME pressure vessel requirements or state boiler codes, or as a result of Malfunction, that prevents the hydrotreater from effectively producing the quantity and quality of feed necessary to achieve established FCCU emission performance. For purposes of this plan, a "planned outage" is one that is scheduled at least six months prior to a shutdown of the GOHDS unit and an "unplanned outage" is one that is either immediate or is scheduled for shutdown less than six months in advance.

ConocoPhillips has a strong incentive to plan GOH unit shutdowns properly due to the negative impact on FCCU yields and fuel specifications. As such, the Billings Refinery is motivated to minimize the impact of these events.

General Process Description

Sour Gas Oil – GOH Feedstock

Atmospheric gas oil is derived from crude distillation in the Billings Refinery's two Crude Units, vacuum gas oil is one of the products of the Vacuum Distillation Unit, and coker gas

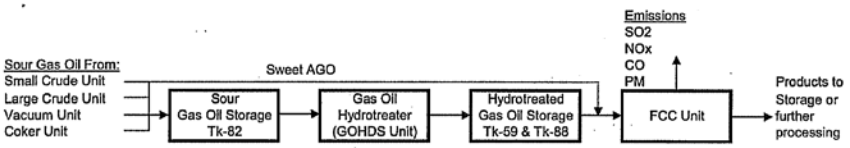
oil is obtained from the Coker Unit. Most of these gas oils are "sour" and contain relatively more sulfur than virgin gas oil derived from 100% sweet crude. The sour gas oils from the various sources are stored in the sour gas oil storage tank(s) and are the feedstock to the GOH unit. In general, sour gas oil storage is limited to one tank.

The GOH unit in the Billings Refinery is the No.4 Gas Oil Hydrotreater or GOHDS unit. The gas oil feeds to the GOHDS unit include virgin gas oils from the crude topping and vacuum units as well as coker gas oil from the Coker Unit. The GOHDS Unit uses catalytic hydrotreating technology to improve the quality of the FCC feed by removing sulfur, nitrogen, and organo-metallic compounds from sour feedstock and improving its cracking characteristics. The resulting GOHDS product is stored in hydrotreated gas oil storage tanks (Tk-59 & Tk-88) and make up most of the fresh feed to the FCCU. See Figure 1, the Billings Refinery Gas Oil System.

Sweet Gas Oil – FCC Feedstock

The Billings Refinery normally processes a blend of crudes; from sweet to sour, light to heavy. The sweetest gas oil (with the lowest sulfur) is the Small Crude Unit atmospheric gas oil (sweet AGO). This gas oil is routed directly to the FCC and normally makes up the remainder of fresh feed to the FCCU, as shown in Figure 1.

Figure 1
Block Flow Diagram - Billings Refinery Gasoil System



Other Feeds

Recently, the FCC has only processed hydrotreated gas oil and Small Crude Unit atmospheric gas oil as fresh feed. However, the FCC has processed sweet resid and various diesel-type streams in the past. If necessary, these feed streams may again need to be processed in the FCC if Refinery operation dictates. All emission permit limits will still be met while processing these "other" fresh feeds.

GOH Outage Plan

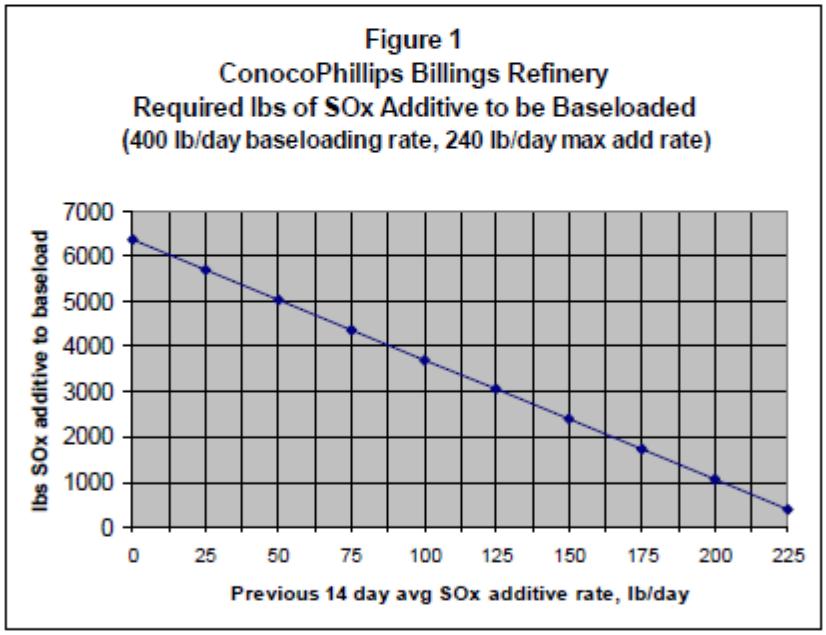
1. During the hydrotreater outage, the refinery can choose to continue to comply with the short term NOx and SO_2 short term limits established under the Consent Decree or alternatively under the terms of this GOH Outage Plan.

2. Planned GOH outages will be conducted concurrently with planned FCCU turnarounds to the extent practicable.

3. Prior to any planned GOH outage, the Billings Refinery will maximize inventory of hydrotreated and/or sweet gas oil to the extent practicable.

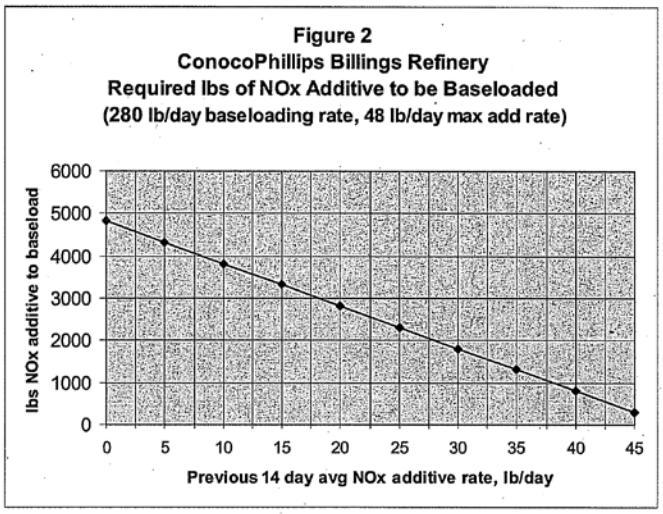
4. During a GOH outage, the Billings Refinery will use hydrotreated gas oil from inventory and sweet AGO, as available, to feed the FCCU in order to attempt to maintain FCCU SO_2 and NOx emissions below the short-term emissions limits established by the Consent Decree. If the amount of hydrotreated and/or sweet gas oil inventory is insufficient to maintain planned FCCU operations, then additional amounts of sour gas oils may be diverted to the FCCU as needed.

5. SO_2 Reducing Catalyst Additive Requirements - At the point where COP determines the short term SO_2 limit (50 ppmvd 0% O2, 7-day rolling average basis) may be exceeded, COP will immediately begin baseloading 400 lb/day of SO_2 additive. The total pounds of SO_2 additive to baseload shall be determined by Figure 1. Following completion of baseloading the required amount, COP shall continue to add a maximum addition rate of 240 lb/day of SO_2 additive for the remainder of the HDT outage regardless of actual SO_2 emissions.



6. NOx Reducing Catalyst Additive Requirements – Following the completion of the NOx additive demonstration period and the establishment of NOx limits, at the point where COP determines the short term NOx limit may be exceeded, COP will immediately begin baseloading 280 lb/day of NOx reducing catalyst additive. The total pounds of NOx additive to baseload shall be determined by Figure 2. Following completion of baseloading the required amount, COP shall continue to add a maximum addition rate of 48 lb/day of NOx additive for the remainder of the HDT outage regardless of actual NOx emissions. During the NOx additive demonstration period, COP will complete the

required baseloading prior to the start of any planned HDT Outage, or within 24 hours of the start of any unplanned HDT Outage, and shall maintain the maximum NOx addition rate for the entire HDT Outage. If the increased usage of NOx additive interferes with the effectiveness of the SO_2 reducing additive, COP may reduce NOx additive rate to a point where such interference does not exist and COP will notify EPA of such interference as soon as practicable. If COP demonstrates that the NOx additive interferes with the SO2 additive, the COP may request, and EPA may approve a modification to this NOx additive requirement during HDT outages.



7. To the extent that the Billings Refinery normally utilizes a low-NOx combustion promoter to minimize NOx emissions, the refinery shall continue to use such promoter during all GOH outages under the same conditions and constraints as for normal operation.

8. If either the SO_2 or NOx short term emission limits as determined per Consent Decree requirements are exceeded during a GOH outage, or if the GOH outage occurs during the NOx reducing catalyst additive demonstration period, then a report will be submitted to the EPA within 60 days after the end of the GOH outage. The report will identify the periods of time that the GOH outage plan applied rather than the short term limits, and describe the steps taken to comply with the GOH outage plan. The report will include data (compiled on a daily average basis) necessary to document that each requirement of the plan was implemented, and also include SO_2 and NOx stack concentration and mass rate emission data.