SPECIAL CONDITIONS

Flexible Permit Numbers 50607 and PSD-TX-1017

## EMISSION CAPS AND INDIVIDUAL LIMITATIONS

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate (ER) limits on that table and other operating conditions specified in this permit. If a facility was inadvertently left out of the flexible permit and is discovered after issuance of the flexible permit, the applicant shall inform the Texas Commission on Environmental Quality (TCEQ) Corpus Christi Regional Office within one week of discovery of the facility and shall submit a permit amendment application within 60 days to add the facility to the flexible permit.

## FEDERAL APPLICABILITY

2. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources (New Source Performance Standards [NSPS]) in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) promulgated for:

   A. Small Industrial, Commercial, and Institutional Steam Generating Units, Subparts A and Db.

   B. Petroleum Refineries, Subparts A and Subpart J.

   C. Equipment Leaks of Volatile Organic Compounds (VOC) in Petroleum Refineries, Subparts A and GGG.

   D. The VOC Emissions from Petroleum Refinery Wastewater Systems, Subparts A and QQQ.

   E. Storage Tanks in 40 CFR Part 60, Subparts A, K, Ka, and Kb.

   F. FCCU in 40 CFR Part 60, Subpart J: 60.102(a)(1), 60.102(a)(2), 60.103(a), 60.104(b)(1), and 60.104(c).

   G. #1 and #2 SRU in 40 CFR Part 60, Subpart J: 60.104(a)(2)(i).

3. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) promulgated for Benzene Waste Operations in 40 CFR Part 61, Subparts A and FF.

4. The facilities shall comply with all applicable requirements of Title 30 Texas Administrative Code §§ 113.110, 113.120, and 113.340 (30 TAC §§ 113.110, 113.120, and 113.340), including the referenced requirements contained in 40 CFR Part 63, Subparts A, F, G, H, CC, and UUU.

STORAGE OF VOC

5. A. The control requirements specified in paragraphs B through E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.5 pound per square inch absolute (psia) at the maximum expected operating temperature or (2) to storage tanks smaller than 25,000 gallons.

   B. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof (IFR): (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal. Installation of equivalent control requires prior review and approval by the TCEQ Executive Director.

   C. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an IFR tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

   D. For any tank equipped with a floating roof, the holder of this permit shall follow 40 CFR § 60.113b, Testing and Procedures, to verify seal integrity. Additionally, the permit holder shall follow 40 CFR § 60.115b, Reporting and Recordkeeping Requirements, to provide records of the dates seals were inspected, seal integrity, and corrective actions taken.

   E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute (API) Code 650 or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

   F. Uninsulated tank exterior surfaces exposed to the sun shall be white, aluminum, or an equivalent light color, except where a dark color is necessary to help the tank absorb or retain heat in order to maintain the material in the tank in a liquid state.

G. For purposes of assuring compliance with VOC emission limitations, the holder of this permit shall maintain a monthly emissions record which describes calculated emissions of VOC from all storage tanks and loading operations. The record shall include tank or loading point identification number, control method used, tank or vessel capacity in gallons or barrels, name of the material stored or loaded, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures. These records shall be maintained at the plant site for at least two years and be made available to representatives of the TCEQ upon request. For compliance demonstration purposes, the holder of this permit may use the meteorological data contained in AP-42, dated March 1998, or later version.

H. For the purposes of this permit, emissions for tanks shall be calculated using: (a) AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated March 1998, and (b) the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks" dated February 1995.

COMBUSTION CONTROLS

6. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

7. Flares shall be designed and operated in accordance with the following requirements:

A. The combined refinery fuel natural gas and waste stream to the flare shall meet the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions. Compliance with this condition shall be demonstrated by monitoring required in Section D below. Flare testing per 40 CFR § 60.18(f) may be requested by the TCEQ Regional Office, in addition to NSPS or federal requirements, to demonstrate compliance with this condition. Testing to confirm the heating value (Btu/per

stamdard cubic feet) may be requested by the TCEQ Regional Office to demonstrate compliance with this condition.

B. All flares including the FCCU Flare, HCU Flare, No. 1 West Plant/Crude Flare, No. 2 West Plant/DOT Flare, and Wastewater Unit Flare shall be operated with a pilot flame present at all times and have a constant pilot flame or an automatic reignition system except during activities that are exempt under 30 TAC Chapter 101. The pilot flame shall be monitored by a thermocouple, an infrared monitor or an ultraviolet monitor. If the pilot flame is extinguished, proper 30 TAC Chapter 101 procedures shall be followed for this incident.

C. The flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours and hours as exempted by 30 TAC § 111.111 to allow visible emission for incidents exempted under 101. This shall be ensured by the use of steam assist to the flare (for steam-assisted flares). The permit holder shall ensure proper flare operation through monitoring by Section D below.

D. The holder of this permit shall install a continuous flow monitor that provides a record of the vent stream flow to the FCCU Flare, HCU Flare, No. 1 West Plant/Crude Flare, and No. 2 West Plant/DOT Flare. The flow monitor sensor should be installed in the vent stream such that the total vent stream to the flare is measured. The average hourly values of the flow shall be recorded and maintained electronically. The holder of this permit shall provide the daily average flow rate (24-hour average) to each flare and the hourly average flow rates during conditions subject to 30 TAC Chapter 101, Subchapter F. Flow rate fluctuations due to monitor malfunctions or calibrations are not required to be used in determining compliance. Records of the flows shall be maintained for a period of two years and be made available to the Executive Director of the TCEQ upon request.

In addition, starting within 60 days from the issuance of the flexible permit, the holder of this permit shall conduct an analysis (grab sample) of the flare composition (total VOC, benzene, hydrogen sulfide [$H_2S$], and Btu content) on a semiannual basis (once during the summer months and once during the winter months). The holder of this permit may submit a request to the TCEQ Regional Office in Corpus Christi to reduce the sampling frequency. The sampling shall be conducted such that the total vent stream to the flare is included in the analysis. Records of the grab sampling results shall be maintained for a period of two years and made available to representatives of the TCEQ upon request. **(PSD)**

8. All burner upgrades shall be accomplished by December 31, 2008. If the permit holder installs low-NOx burners prior to the applicability date of the final emission cap, then the firing rates of the heaters can be increased. A revised interim emission cap shall be submitted within 30 days after the control retrofit. **(PSD)**

## OPERATING PARAMETERS AND CONDITIONS

9. The benzene content of the finished gasoline products shall not exceed 4.5 percent by weight. Liquid chromatography or equivalent methods shall be used to determine the benzene concentration in gasoline products. The benzene content shall be determined at least once per quarter and records kept.

10. All combustion sources covered under this permit shall be fired with either sweet natural gas as defined in 30 TAC Chapter 101 or with refinery fuel gas containing no more than 0.10 grain total sulfur expressed as $H_2S$ per dry standard cubic feet (dscf) on a hourly and annual average basis. **(PSD)**

11. There shall be no visible emissions from the No. 1 SRU Incinerator Vent (Emission Point No. [EPN] V-008), or the No. 2 SRU Incinerator Vent (EPN V-009) except for those periods described in 30 TAC § 111.111(a).

## PIPING, VALVES, CONNECTORS, PUMPS, AND COMPRESSORS IN VOC SERVICE

12. Special Condition No. 13 (28VHP) will apply to all units except the Light Ends Unit (LEU) 3900. The LEU is and will continue to be monitored with the 28MID I&M program. The plant site's existing 28M and 28RCT I&M programs will be phased out within 60 days following the issuance of the flexible permit, as the 28VHP and 28MID I&M programs are implemented. The holder of this permit shall compile a list for all equipment (components) in VOC service excluded from the monitoring conditions (as allowed by Special Condition Nos. 13A and 14A within two years from the issuance date of the flexible permit).

13. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28VHP

    Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), API, American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b).

Replaced components shall be re-monitored within 15 days of being placed

back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

14. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - Intensive Directed Maintenance - 28MID for Light Ends Unit (LEU) 3900

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment.

A. These conditions shall not apply (1) where the VOCs have an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.
An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b).

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. All new and replacement pumps and compressors shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump and compressor seals emitting VOC shall be monitored with an approved gas analyzer at least quarterly.

H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such

repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

I. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

J. The percent of valves leaking used in paragraph I shall be determined using the following formula:

$$(Vl + Vs) \times 100/Vt = Vp$$

Where:

Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.

Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor valves.

Vp = the percentage of leaking valves for the monitoring period.

K. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken.

Records of physical inspections are not required unless a leak is detected.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS or NESHAPS, and does not constitute approval of alternative standards for these regulations.

SULFUR RECOVERY UNITS (SRUs)

15. The No. 1 SRU Incinerator Vent (EPN V-008) and the No. 2 SRU Incinerator Vent (EPN V-009) shall be operated with not less than 1.5 percent oxygen ($O_2$) in the incinerator stack and not less than 1200°F incinerator firebox temperature on an hourly average basis. The incinerator firebox exit temperature and incinerator stack $O_2$ level shall be continuously monitored and recorded on an hourly average basis.
16. The minimum sulfur recovery efficiency for the No. 1 and No. 2 Sulfur Plants shall be 99.8 percent. The sulfur recovery efficiency shall be determined by calculation as follows:

$$\text{Efficiency} = \frac{(\text{S recovered})*(100)}{(\text{S acid gas})}$$

where: Efficiency = sulfur recovery efficiency, percent

S recovered = S produced, Long tons per day (LTPD)
S acid gas = (S recovered plus S stack), LTPD
S stack = sulfur in the incinerator stack, LTPD

The average sulfur emission reduction efficiency (sulfur recovery efficiency) shall be demonstrated for each 24-hour period by a mass balance calculation using data obtained from the incinerator stack sulfur oxide ($SO_2$) monitor, sulfur production records, and other process data. The daily sulfur recovery efficiency shall be calculated on a monthly basis. **(PSD)**

17. If the total sulfur recovered from the combined SRU Trains (SRU No. 1 and SRU No. 2) should exceed 200 LTPD, the holder of this permit shall document and maintain records of the redundancy, except as provided in Special Condition No. 20 or "excess capacity" available in the SRU complex (SRU No. 1 and SRU No. 2) for periods of operation exceeding 200 LTPD. At no time during normal operation when the total sulfur recovered exceeds 200 LTPD shall the excess capacity be less than 75 percent redundancy (to help should an SRU go off-line, etc). For periods of operation above 200 LTPD, the holder of this permit shall document the availability of the redundancy or excess capacity. Records for periods of operation above 200 LTPD and the redundancy available shall be maintained for a period of

two years and made available to representatives of the TCEQ upon request. **(PSD)**

18. All acid gas streams from the amine regeneration units, and sour water stripper overheads, containing $H_2S$ shall be routed to the SRUs or other process units under normal operating conditions. Only under emergency conditions shall the vent streams be sent to the flare, and such flaring events are not authorized by this permit and shall be handled and reported according to the requirements of 30 TAC Chapter 101 Subchapter F. It is not permissible under any conditions to vent acid gases directly to the atmosphere. Any other exception to this condition requires prior review and approval by the TCEQ Executive Director, and such exceptions may be subject to strict monitoring requirements. **(PSD)**

19. Sour gas emissions from the sulfur pits, sulfur storage, and sulfur loading operations shall be collected by a vapor collection system and routed either back to the SRU thermal reactor or to the SRU tail gas incinerator (TGI). The flare may be used on an emergency basis only. **(PSD)**
20. Records shall be maintained for all SRU, TGU, and TGI downtime when acid gas is flared. These records shall include the date and duration of downtime, amount of bypassed acid gas flared, the cause of the downtime, and corrective action taken. These records shall be maintained on-site for a period of two years and made available to representatives of the TCEQ upon request. **(PSD)**

21. During the period in which the No. 2 SRU is brought on line and the No. 1 SRU has either not been revamped or is shutdown for construction, the following actions should be taken in the event of a shutdown of a sulfur plant:

    A. Reroute the maximum amount of the acid gas to the operating No. 1 SRU, No. 2 SRU, and the ATS Unit.

    B. Reduce operation of the sour water strippers and accumulate sour water in tankage for future processing.

    C. Curtail operation of upstream units until continuous acid gas flaring is eliminated. **(PSD)**

COOLING TOWERS

22. The VOC associated with cooling tower water shall be monitored monthly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved

equivalent sampling method. The cooling tower systems shall be maintained so as to minimize VOC emissions. The results of the monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of two years. The monitoring records shall be made available to the TCEQ Executive Director upon request.

One year after the Flexible Permit is issued, the permittee shall analyze the monitoring data from the East Plant Cooling Tower, West Plant Cooling Tower No. 1 and West Plant Cooling Tower No. 2. With this data, a leak detection level shall be determined for each cooling tower system and reported to the TCEQ for approval. Upon approval, the TCEQ will alter the permit to reflect the determined leak detection levels.

Upon alteration, if a leak equivalent to more than the leak detection levels determined above is detected, the owner or operator shall repair the leak as soon as practical after the holder of this permit receives results of monitoring tests indicating a leak. If repair is technically infeasible without a shutdown, the leak will be repaired at the next scheduled shutdown.

23. Piping, Valves, Pumps, and Compressors in $H_2S$, $SO_2$, or Ammonia ($NH_3$) Service

A. Audio, olfactory, and visual checks for $H_2S$, $SO_2$, and $NH_3$ leaks within the ATS Unit, No. 1 and No. 2 Sulfur Plants, Amine Regenerators, Sour Water Stripper, and process streams that have greater than 2 percent $H_2S$ by weight shall be made once per shift.

B. Immediately but no later than one hour upon detection of a leak, plant personnel shall take the following actions:

(1) Isolate the leak.

(2) Commence repair or replacement of the leaking component.

(3) Use a leak collection or containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

C. This program will be in place 60 days from the issuance of this flexible permit. **(PSD)**

LOADING OF VOC

24. The permittee shall not allow a gasoline tank truck to be loaded at this facility unless the tank truck being loaded has passed a leak-tightness test within the past 12 months using the methods described in NSPS, Subpart XX. Each tank truck shall display or carry identification which:

A. Shows the date the tank truck last passed the leak-tightness test required by this special condition.

B. Shows the identification number of the tank truck.

Reporting and recordkeeping of this certification shall be conducted in accordance with 40 CFR § 60.505. Tank truck documentation may be kept at an alternate location, such as, the company headquarters in San Antonio.

25. When loading materials with a vapor pressure greater than or equal to 0.5 psia at maximum loading temperature, the loading emissions shall be routed to the vapor combustion unit (VCU) (EPN VCU-1). The VCU shall meet the requirements of MACT Subpart R for gasoline loading (emissions of VOC no greater than 10 milligrams/liter of gasoline loaded) and the requirements of MACT Subpart G for benzene loading (no less than 98 percent efficiency in destruction of the carbon compounds captured by the collection system). **(PSD)**
26. For the purposes of this permit, emissions for loading operations shall be calculated using: AP-42, Fifth Edition, Equation 1 (Section 5.2.2.1.1, Loading Losses). Loading emissions may be credited with a 95 percent collection efficiency for vessels leak-checked annually, and 97.5 percent collection efficiency for vessels leak-checked semiannually.

27. Operation without visible liquid leaks or spills shall be maintained at all loading/unloading facilities, regardless of vapor pressure. This does not apply to momentary dripping associated with the initial connection or disconnection of fittings. Sustained dripping from fittings during loading/unloading operations is not permitted. Any liquid spill that occurs during loading/unloading activities that results in emissions that exceed a reportable quantity shall be reported pursuant to 30 Texas Administrative Code §§ 101.201 or 101.211 and shall be cleaned up immediately to minimize air emissions.

FLUIDIZED CATALYTIC CRACKING UNIT

28. The maximum allowable concentration of the following pollutants in the FCCU vent gas scrubber stack shall not exceed the following:

| | |
|---|---|
| CO | 500 ppmv |
| nitrogen oxides ($NO_x$) | 200 ppmv |
| VOC | 10 ppmv |

The emissions from the FCCU stack shall not exceed 1.0 pound (lb) of particulate matter (PM) per 1,000 lb of coke burn-off (with PM emissions measured per the EPA Method 5B). **(PSD)** The $SO_2$ emissions from the wet gas scrubber shall not exceed 50 ppmv on a 7-day rolling average. By December 31, 2006, Valero will comply with $SO_2$ concentration emission limits of 25 ppmvd measured as a 365-day rolling average and 50 ppmvd as a 7-day rolling average, both at 0% $O_2$ (EPA CD 9/25/2005 Paragraph 74). **(07/06)**

29. The opacity of emissions from the FCCU stack shall not exceed 20 percent averaged over a six-minute period, as determined by an opacity monitoring device or a trained observer, except as provided for in Title 30 Texas Administrative Code § 111.111(a)(1)(E). **(PSD)**

30. The FCCU is not subject to NSPS Subpart J for $SO_2$ at the time of this permit issuance. Short-term emission increases covered by the permit and which would trigger NSPS Subpart J applicability for the FCCU are not authorized under the permit until such time the DOT compressor is installed and operational. The FCCU will remain limited to the previously permitted short-term $SO_2$ emission limit of 99.05 lb/hr until such time that NSPS Subpart J is triggered, after which one of the NSPS Subpart J $SO_2$ standards will be met. **(PSD)**

31. The FCCU shall be equipped with a caustic scrubber (wet gas scrubber) by July 2005. **(PSD)**

32. The pH of the scrubber circulating caustic solution shall be continually monitored and be maintained at a level between 6.0 and 9.0 by the addition of fresh caustic solution as required. The pH shall be recorded at least hourly, and the records maintained at the plant site for a period of two years. These records shall be made available for inspection by the Executive Director of the TCEQ or his designated representative. **(PSD)**

33. Ammonia ($NH_3$) slip from the FCCU shall not exceed 250 ppmv short term (hourly average) and 100 ppmv annual average. The $NH_3$ injection rate to the FCCU shall be continuously monitored and recorded. Once the wet gas scrubber is installed, by July 2005, $NH_3$ shall no longer be used to control opacity from the FCCU vent..

**(PSD)**

HYDROGEN FLUORIDE (HF) ALKYLATION

34. The HF detection paint shall be used on all potential fugitive sources and possible leak sites within a year of the issuance of this flexible permit. Locations with HF detection paint shall be inspected every shift during the audio, visual, and olfactory checks required by Special Condition No. 38. If leaks are detected, corrective action shall be taken immediately as described in Special Condition No. 38. If there is a problem with HF sensitive paint availability, the holder of this permit shall notify the TCEQ Corpus Christi Regional Office and request additional time for painting or request alternate leak detection methods pending availability of the HF sensitive paint.

35. In the event of an HF release which may have the potential for off-site impacts, the holder of this permit shall implement the procedures outlined in the emergency response plans.

36. There shall be no overhead work in the HF process unit where equipment is being lifted over unprotected vessels or lines without first completing a safe work checklist in accordance with Occupational Safety and Health Administration Process Safety Management rules. The safe work checklist shall be used to ensure that every effort is made to minimize the potential for an accident that would result in loss of integrity of HF-containing equipment.

37. The holder of this permit is required to notify the TCEQ Corpus Christi Regional Office no less than eight hours prior to conducting work over unprotected vessels or lines containing more than 5 percent by weight HF.

38. AVO Inspection

    Piping, Valves, Pumps, and Compressors in HF Service

    A. The AVO checks for HF leaks within the operating area shall be made once per shift (once every 12 hours) for streams in HF service with greater than 0.5 % HF.

    B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take the following actions:

(1) Stop the leak by taking the equipment out of service or bypass the equipment so that it is no longer in service.

(2) Isolate the leak.

(3) Commence repair or replacement of the leaking component.

(4) If the leak cannot be repaired within six hours, the holder of this permit shall use a leak collection or containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

Records shall be maintained at the plant site of all repairs and replacements made due to leaks. A reminder that visual checks for HF leaks need be made once per shift shall be included in the operator manual within 60 days from the issuance of the flexible permit. These records shall be made available to representatives of the TCEQ upon request.

39. To allow for remote control of fire monitor stations around the HF area, and to allow for additional surveillance, surveillance cameras shall be maintained and linked to closed circuit television monitors in the main control room.

INITIAL DETERMINATION OF COMPLIANCE

40. Sampling ports and platform(s) shall be incorporated into the design of the FCCU Regenerator Vent, Emission Point No. (EPN) V-002, and the FCCU Scrubber Vent (EPN V-010), according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director or the Manager of the TCEQ Compliance Support Division in Austin.

41. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from EPN V-002 or EPN V-010, as appropriate. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:

(1) Date for pretest meeting.
(2) Date sampling will occur.
(3) Name of firm conducting sampling.
(4) Type of sampling equipment to be used.
(5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or the EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director or the Manager of the TCEQ Austin Enforcement Division, Engineering Services Team shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division in Austin. Test waivers and alternate or equivalent procedure proposals for New Source Performance Standards testing which must have the EPA approval shall be submitted to the TCEQ Enforcement Division, Engineering Services Team in Austin.

B. Air contaminants emitted from EPN V-002 or EPN V-010, as appropriate, to be tested for include (but are not limited to) CO, $NO_x$, $SO_2$, VOC, PM and $H_2SO_4$. Opacity shall be determined by an opacity monitoring device or a trained observer. Stack testing shall be conducted for $NH_3$ within six months of the approval of this flexible permit. The testing results shall be used to verify compliance with the $NH_3$ slip emissions contained in the MAERT and concentrations identified in Special Condition No. 33. In addition, stack testing results shall be evaluated for any alteration to the concentration vs. injection rate curves developed to support the ammonia injection amendment application, and this evaluation shall be submitted to the TCEQ for review.

C. Sampling shall be conducted within 120 days of startup of the FCCU Wet Gas Scrubber, and at such other times as required by the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR PartS 60 and 61 requires the EPA approval, and requests shall be submitted to the TCEQ Engineering Services Team in Austin.

D. The unit shall operate at maximum feed rates during stack emission testing.

Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the unit is unable to operate at maximum rates during testing, then future feed rates may be limited to the rates established during testing. Additional stack testing may be required if higher feed rates are achieved.

E. Copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.
One copy to the appropriate local air pollution control program.
One copy to the TCEQ Compliance Support Division in Austin.
**(PSD)**

42. Sampling ports and platform(s) shall be incorporated into the design of the No. 1 SRU Incinerator Vent Stack (EPN V-008) and No. 2 SRU Incinerator Vent Stack (EPN V-009) according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Corpus Christi Regional Director or the TCEQ Director of the Compliance Support Division in Austin.

43. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stack of the No. 1 Sulfur Plant Vent (EPN V-008), the No. 2 Sulfur Plant Vent (EPN V-009), the No. 2 SRU Hot Oil Heater (EPN H-047), and the ROSE Unit Heater (EPN H-048). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

A. The TCEQ Corpus Christi Regional Office shall be contacted as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting.

The notice shall include:

Date for pretest meeting.

(1) Date sampling will occur.
(2) Name of firm conducting sampling.

(3) Type of sampling equipment to be used.
(4) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Corpus Christi Regional Director or Director of the TCEQ Compliance Support Division in Austin shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division in Austin. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Compliance Support Division in Austin.

B. Air contaminants emitted from each EPN to be tested for include (but are not limited to):

EPN V-008: $SO_2$
EPN V-009: $SO_2$
EPN H-047: $NO_x$ and CO
EPN H-048: $NO_x$ and CO

C. For the SRU Vents V-008 and V-009, sampling shall occur within 120 days after initial start-up or modification of the facilities. For the No. 2 SRU Hot Oil Heater (EPN H-047), the ROSE Unit Heater (EPN H-048), sampling shall occur within 120 days of initial start-up of the heaters. Sampling shall also occur at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Corpus Christi Regional Office. Additional time to comply with the applicable requirements of 40 CFR Parts 60 and 61 requires the EPA approval and requests shall be submitted to the TCEQ Compliance Support Division in Austin.
D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rates shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at

maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Corpus Christi Regional Office.
One copy to the TCEQ Compliance Support Division in Austin.
One copy to the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division in Austin. **(PSD)**

CONTINUOUS DETERMINATION OF COMPLIANCE

44. The holder of this permit shall install and maintain a continuous $H_2S$ monitoring system in a representative location in the fuel gas system common to the affected combustion sources within this permit in accordance with the fuel sulfur monitoring requirements of 40 CFR § 60.105. **(PSD)**

45. The holder of this permit shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentrations of the following compounds from the indicated sources:

| EPN | Source | Pollutant |
|---|---|---|
| H-030 | No. 2 Reformer Charge Heaters | $NO_x$, $O_2$ and CO |
| H-028 | No. 1 Crude Charge Heater | $NO_x$, $O_2$ and CO |
| H-036 | No. 1 Crude Charge Heater | $NO_x$ and CO |
| V-008 | No. 1 SRU Incinerator | $SO_2$ and $O_2$ |
| V-009 | No. 2 SRU Incinerator | $SO_2$ and $O_2$ |
| H-032 | No. 2 Reformer Charge Heater | $NO_x$, $O_2$, and CO |
| V-002/ V-010 | FCCU Regenerator Vent | $NO_x$, $O_2$, $SO_2$, and CO |

The $SO_2$ and $O_2$ CEMS is currently installed and running in the No. 1 SRU Incinerator (EPN V-008), and the FCCU Regenerator Vent (EPN V-002).
The CEMS shall be installed in the No. 2 SRU Incinerator stack within six months of start-up of the No. 2 SRU Unit.

The $NO_x$, CO, $SO_2$ and $O_2$ CEMS shall be installed in the FCCU Scrubber Vent (EPN V-010) by May 20, 2006. **(04/06)**

The CEMS shall be installed in the No. 1 Crude Charge Heater (EPN V-036) and the No. 1 Crude Charge Heater (EPN H-208) by May 20, 2007. **(04/06)**

CEMS shall be installed in the No. 2 Reformer Charge Heater (EPN H-030) by May 20, 2008. **(04/06)**

The holder of this permit shall install, maintain, and operate a CEMS or a predictive emissions monitoring system (PEMS) to measure and/or predict and record the concentrations of $NO_x$ and $O_2$ or carbon dioxide ($CO_2$) at the exhaust stack of the BTX boiler (EPN B-007). The monitoring system shall meet either the following section of Requirements for CEMS or the section Requirements for PEMS, as applicable. **(PSD)**

REQUIREMENTS FOR CEMS

46. A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specifications Nos. 1 through 7, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division in Austin for requirements to be met.

B. The system shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in 40 CFR Part 60, Appendix B or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor installed on a source subject to the provisions of NSPS shall be quality-assured as required by the applicable provisions in 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2 except for the FCCU $SO_2$ monitor. This monitor shall comply with this condition when the FCCU becomes subject to NSPS Subpart J for $SO_2$ as explained in Special Condition No. 30.

Emission monitors installed on sources not subject to NSPS or not subject to

Appendix F will comply with the following:

(1) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

(2) The system shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is **not** required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All cylinder gas audit exceedances of ±15 percent accuracy and any CEMS downtime in excess of 24 hours shall be reported to the TCEQ Corpus Christi Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Corpus Christi Regional Director. **(07/06)**

C. The monitoring data shall be reduced to hourly average concentrations at least once every 24 hours, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable ER in lb/hr at least once per month.

D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit, as appropriate.

E. For NSPS sources subject to Appendix F, the TCEQ Corpus Christi Regional Office shall be notified at least 30 days prior to each annual relative accuracy testing audit (RATA) in order to provide them the opportunity to observe the testing. **(PSD)**

REQUIREMENTS FOR PEMS

47. A. A PEMS is currently used for demonstrating continuous compliance at the exhaust stack of the BTX Boiler. The PEMS has been proven to have the same or better accuracy, precision, reliability, accessibility, and timeliness as that provided by a hardware CEMS and has been approved by the TCEQ Executive Director.

B. The monitoring data shall be reduced to hourly average concentrations at least once everyday, using a minimum of four equally-spaced data points from each one hour period. The individual average concentrations shall be reduced to units of the permit allowable ER in lb/hr at least once everyday and cumulative tpy on a 12-month rolling average at least once every month.

C. All monitoring data and quality-assurance data shall be maintained by the permit holder for a period of two years and shall be made available to the TCEQ Executive Director or designated representative upon request.

D. Any PEMS downtime not corrected within 24 hours shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Owners or operators shall demonstrate that all missing data can be accounted for in accordance with the applicable missing data procedures of 40 CFR Part 75, Subpart D. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to each annual relative accuracy testing audit in order to provide them the opportunity to observe the testing.

F. The owner or operator shall perform daily sensor validation. The owner or operator shall develop and implement plans that will ensure proper functioning of the monitoring systems, ensure proper accuracy and calibration of all operational parameters that affect emissions and serve as input to the predictive monitoring system, and ensure continuous operation within the certified operating range.

G. In accordance with the procedure of § 2.3.1, Appendix B of 40 CFR Part 60, a RATA must be performed every six months for each unit while firing its primary fuel. A RATA may be performed annually if the relative accuracy of the previous audit for $NO_x$ is 7.5 percent or less.

H. A RATA and statistical testing must be conducted in each of the three

successive quarters following the quarter in which initial certification was conducted. This testing must be performed for at least one unit in a category of units in accordance with the procedures outlined for initial certification. The fourth quarterly RATA shall also be the first semiannual RATA. Initial certification was completed on October 1997.

I. Any RATA exceeding 20 percent for $NO_x$ or statistical test exceeding the applicable standard shall be reported to the appropriate TCEQ Regional Director and necessary corrective action shall be taken.

J. When an alternative fuel is fired in a unit, PEMS must be re-certified in accordance with the certification procedures outlined for initial certification under Section B. Owners or operators may justify to the satisfaction of the TCEQ Executive Director that slight changes in fuel composition do not constitute an alternative fuel. No additional recertification procedures are required if the unit meets the current monitoring requirements when switching back to the normal fuel from an alternate fuel.

K. The system is required to provide valid emission predictions for at least 95 percent of the time that the unit being monitored is operated. The following rules for tuning without recertification shall be followed:

(1) The model did not change fundamentally.
(2) The model continues to operate within the initially certified operating ranges.

Otherwise, the system must be recertified. Any tuning must be documented, and the records must be made available during any future inspection.

L. All owners/operators shall develop a quality-assurance plan/manual that insures continuous and reliable performance of the PEMS. As part of the plan, owners/operators shall recommend a frequency for calibrating each sensor whose readout serves as an input to the model. All sensors, at a minimum, shall be calibrated as often as recommended by the manufacturer. **(PSD)**

48. All occurrences of the following noncomplying emissions/conditions must be logged and copies sent to the TCEQ Corpus Christi Regional Office on a semiannual basis:

A. Each rolling 30-day period, as recorded by the PEMS, during which the average $NO_x$ emissions exceed the lb/MMBtu limit specified in the flexible permit application.

As long as noncomplying emissions/conditions have not occurred, reporting shall consist only of an annual letter to the TCEQ Corpus Christi Regional Office, stating that no such conditions have occurred. **(PSD)**

REPORTING

49. The CEMS reports required by NSPS or NESHAPs reports shall be submitted not less than semiannually to the TCEQ. At a minimum, each excess report shall contain:

    A. Reporting of all episodes of CEMS downtime if it is not corrected within 24 hours.

    B. Identification of reasons for CEMS downtime if not corrected within 24 hours as well as a description of all corrective and preventative actions taken. **(PSD)**

EMISSION CAP COMPLIANCE RECORDKEEPING

50. Recordkeeping programs for those facilities authorized and covered by this flexible permit shall be established and maintained such that the ability to demonstrate compliance with all authorized emission caps (short-term [lb/hr] and annual [tpy]) and individual permit limits is ensured. Records of all compliance testing, CEM results, and process parameters (including short-term production rates, firing rates, etc.) necessary to demonstrate compliance with the ER caps shall be maintained on-site for a period of two years.

Emission calculations for verifying compliance with the emission caps shall be performed at least once every month to demonstrate compliance with the annual rolling average ER. Demonstration of compliance shall be based on the methodologies presented in the flexible permit application or as presented below. The holder of this permit shall maintain all records necessary to demonstrate compliance with the short-term (lb/hr) and annual (tpy) emissions caps consistent with this methodology and provide such demonstration of compliance to the TCEQ Regional Office upon request.

These and all records required by any conditions of this permit shall be made available to representatives of the TCEQ upon request.

The emissions shall be determined by using the following techniques. When a technique is not specified below for a specific facility type, the holder of this permit shall use the technique that was used in the permit application.

Tanks - As specified in Special Condition No. 5, short-term ERs shall be based on the maximum expected pumping rate (fixed-roof) and the higher of the pumping rate or withdrawal rate (IFR and EFR).

Loading - AP-42 Chapter 5.2-4 (Fifth Edition) $L_L$ Equation - The collection efficiency is 95 percent collection for annual vessel leak inspections and 97.5 for semiannual vessel leak inspections. A 98 percent destruction efficiency is allowed for benzene vapors being routed to the vapor combustor as a control device. VOC emissions from the vapor combustor shall be no greater than 10 milligrams/liter of gasoline loaded. **(PSD)**

Fugitives - Component counts, emission factors, and reduction credits specified in the permit application for the 28VHP, 28MID, and AVO maintenance program.

Boilers/Heaters - CEM information if such a device is installed. The most recent stack test results if a CEM is not installed. If no stack sampling is required, use the proper emission factor for the specific unit from the permit application and the measured btu value and flow rate of the fuel gas.

SRU/FCCU - CEM information. Use the most recent stack test for those compounds which are not subject to CEM requirements. If no stack sampling is required, use the proper emission factor for the specific unit from the permit application.

Compliance with the annual emission caps and individual emission limitations of this flexible permit shall be based on a 12-month rolling average of emissions (emissions shall be calculated monthly and summed for the most recent 12-month period for comparison to the caps), except during the first twelve calendar months after the start of compliance demonstrations required by this condition. (The emissions shall be calculated monthly and summed for the most recent 12-month period for comparison to the caps.) **(PSD)**