

Texas Commission on Environmental Quality
Air Permits Division

New Source Review (NSR) Boilerplate Special Conditions

This information is maintained by the Chemical NSR Section and is subject to change. Last update was made **October 2006**. These special conditions represent current NSR boilerplate guidelines and are provided for informational purposes only. The special conditions for any permit or amendment are subject to change through TCEQ case by case evaluation procedures [30 TAC 116.111(a)]. Please contact the appropriate Chemical NSR Section management if there are questions related to the boilerplate guidelines.

Gasoline Terminals All (A), terminals with a vapor combustion unit (VCU), terminals with a regenerative carbon adsorption system (VRU), terminals with an elevated flare (F), vacuum loading (V)

(A) [32M](#) (*first paragraph only*)

(A) [Federal Applicability](#) *Applicable federal standards. If not subject to MACT Subpart R, and enforceable throughput limits are established in the permit conditions, use the following condition to ensure non-applicability in lieu of HAPS testing.*

The terminal must comply with all applicable requirements of 40 CFR Part 63, Subpart R relating to the recordkeeping and reporting requirements for claiming the exemption under 40 CFR § 63.420(a)(1).

(A) Emission Limit VOC emissions from the *control device* shall not exceed ___ milligrams per liter (mg/l) (*not to exceed 10 mg/l [0.0834 pound per 1,000 gallons]*) of gasoline loaded.

(A) Throughput This permit authorizes the storage and loading of products, hourly tank withdrawal/fill rates, rolling 12-month throughput for each tank and product, and hourly truck loading rates and rolling 12-month loading rack throughput for each product as shown on [Attachment A](#).

Or rather than limiting loading/tank throughput/etc., the following language may be used:

The permit holder shall maintain and update monthly an emissions record which includes calculated emissions of VOC from all loading operations over the previous rolling 12 month period. The record shall include the loading spot, control method used, quantity loaded in gallons, name of the liquid loaded, vapor molecular weight, liquid temperature in degrees Fahrenheit, liquid vapor pressure at the liquid temperature in psia, liquid throughput for the previous month and rolling 12 months to date. Records of VOC temperature are not required to be kept for liquids loaded from unheated tanks which receive liquids that are at or below ambient temperatures. Emissions shall be calculated using the TCEQ publication titled "Technical Guidance

Package for Chemical Sources - Loading Operations.”

- (A) RVP Limits *The following is a sample condition with RVP limits in effect (as of 1/05) for Dallas/Ft. Worth, Houston/Galveston, and Beaumont/Pt. Arthur areas. Attainment and near-nonattainment areas will have different limits - 30 TAC 114.301 governs East Texas - “affected counties” listed in 114.309 - May through September.*

The storage of gasoline is limited to gasoline's meeting the monthly Reid Vapor Pressure (RVP) standards specified in the versions of 40 CFR 80.27(a)(2) and ASTM D4814 which are in effect as of (*Month/Year*). These monthly maximum RVP limits in psia are as follows:

<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>Ma</u> <u>y</u>	<u>Jun</u>	<u>Jul</u>	<u>Au</u> <u>g</u>	<u>Sep</u>		<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
								1-15	16-30			
13.5	13.5	13.5	11.5	9.0	7.8	7.8	7.8	7.8	10.0	11.5	13.5	13.5

(A) RVP Compliance The holder of this permit shall obtain the RVP data provided by the delivering refinery for each batch of gasoline delivered to the terminal by pipeline. Gasoline RVP data shall be reduced to monthly weighted averages of pipeline receipts for purposes of determining compliance with the conditions of this permit. *This is in lieu of requiring RVP testing of each gasoline tank after a delivery into the tank. In the event that gasoline is delivered to the terminal from other sources (truck, marine) then the quantity/RVP of those deliveries must also be taken into account.*

(A) Limits on toxics The (*benzene, MTBE, etc.*) content of any grade of gasoline processed at this terminal shall not exceed X percent by weight in the liquid (Y percent by volume in liquid). Gasoline shall be analyzed for (*benzene, MTBE, etc.*) two times per year. One test shall be during the summer (May 1 - September 15) and the other test shall be during the winter (November 1 - February 29). The record shall report (*benzene, MTBE, etc.*) content for all grades of gasoline. Gasoline analyses (laboratory certificates of analysis) from the delivering refiner are acceptable in place of on-site analysis (*Most terminals are supplied by pipeline from refineries - the refinery analyses should suffice in the absence of other factors.*)

(A) Truck Leak Testing The permit holder shall not allow a gasoline tank truck to be filled unless certification has been presented indicating that the truck has passed a vapor tightness test within the past 12 months conforming to the requirements of *either* 40 CFR 63, Subpart R - *if subject to MACT Subpart R, or if utilizing that testing method in order to be allowed 99.2% collection efficiency, or* 40 CFR 60, Subpart XX. *This is irrespective of whether the terminal is subject to Subpart XX - we require this as a minimum and allow 98.7% collection efficiency for annual XX testing.*

(A) Tanks [Tanks](#)

(a) Tanks - Roof Landing [Tank Floating Roof Landing-Refilling](#)

(A) Piping Fugitives [Petroleum Marketing Terminal AVO Inspection](#)

(A) Vapor Collection At all times when gasoline is being loaded, the loading rack vapor collection system shall vent to VRU (*or VCU/Flare*).

(VCU) Operation *To address the 40CFR 60.18 heating value requirement while loading diesel or kerosene/jet fuel (D-K-J) and gasoline simultaneously, a condition may be used ensuring that the ratio of gasoline to D/K/J loading rates is such that the waste gas going to the VCU will have a minimum heating value of 300 Btu/SCF. A gasoline to D-K-J ratio as low as approximately 1 to 3 will meet this.*

The VCU shall be operated with no visible emissions and have a constant pilot flame during all times waste gas could be directed to it. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

If controlling to a more stringent level than BACT, add the following:

The temperature in, or immediately downstream of, the combustion chamber of the VCU shall be maintained above the minimum one hour average temperature maintained during the last satisfactory stack test.

Add temperature measurement frequency, calibration and quality assurance paragraphs from Vapor Combustors in [Flares and Vapor Combustors](#)

(VRU) Operation CEMS *is required - replace the quality assurance paragraph in the CEMS condition with the following:*

Each monitor shall be quality-assured at least semiannually 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 is not required once every four quarters (i.e., two successive semiannual CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. After completion of four consecutive satisfactory semiannual CGAs, the permit holder may submit a request to perform this monitoring on a less frequent basis. This submission shall be in the form of a permit alteration request to the Air Permits Division of the TCEQ.

Also replace the last 2 sentences in the CEMS condition with the following

When the CEMS is out of service, proper operation of the VRU shall be ensured through system inspection and evaluation following the manufacturer's daily checklist. Operating parameters for the VRU system shall be checked against the manufacturer's recommended operating range. The daily checklist will be maintained as the VRU record for all periods when the CEMS is out of service.

(VRU) Alarm An alarm shall be installed such that an operator is alerted if the VRU outlet concentration exceeds a one-hour rolling average of 6,500 parts per million by volume (ppmv). The one-hour rolling average outlet concentration shall not exceed 9,500 ppmv.

Records of the corrective action taken following an alarm will be maintained at the terminal site and shall include the time and date of that action.

- (F) Operation Flare *In the event that a gasoline terminal has an elevated flare, the VOC emissions from the flare can be estimated at 10 mg/liter of gasoline loaded, provided the flare meets requirements of 40CFR 63.11(b) (essentially same as 40CFR 60.18). The assumption was made in the Background Information Document for the Gasoline Terminal MACT - 40CFR 63, Subpart R that if a flare met requirements of 40CFR 63.11(b), it would meet the 10 mg/l limit. This is equivalent to 99+% DRE.*
- (V) Operation A blower system shall be installed which will produce a vacuum in the tank truck during all loading operations. A pressure/vacuum gauge shall be installed on the suction side of the loading rack blower system adjacent to the truck being loaded to verify a vacuum in that vessel. Loading shall not occur unless there is a vacuum of at least 1.5 inch water column being maintained by the vacuum-assist vapor collection system when loading trucks. The vacuum shall be recorded every 15 minutes during loading.
- (VCU)(VRU) Sampling Stack Sampling *Replace the required operating rate paragraph in the Stack Sampling condition with the following:*

The facility being sampled shall operate at no less than 75 percent of maximum gasoline loading rates for at least one hour of the test period. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. During subsequent operations, the VCU/VRU parameters shall be maintained at levels no less than those recorded during the test period. Additional stack sampling is required at the higher loading rate should the hourly gasoline loading during subsequent operations exceed that maintained for one hour during the stack test. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

SAMPLE

ATTACHMENT A
Permit Number xxxxx

Authorized Products, Tank Withdrawal/Filling and Truck Loading Rates, Throughputs

EPN	Name	<u>Gasoline</u>		<u>Distillate</u>		<u>Jet Fuel</u>		<u>Additive</u>	
		bbl/hr	Mbbl/yr	bbl/hr	Mbbl/yr	bbl/hr	Mbbl/yr	gal/hr	Mgal/yr
A	Tank A								
B	Tank B								
C	Tank C								
D	Tank D								
E	Tank E								
F	Tank F								
G	Tank G								
LOAD	Loading Rack								

Note: Hourly rate reflects maximum tank withdrawal/fill rate or truck loading rate. Annual rate reflects maximum throughput for any consecutive 12-month period.