

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

BASF Corporation

AUTHORIZING THE OPERATION OF

Neopentyl Glycol Facility  
Industrial Organic Chemicals

LOCATED AT

Brazoria County, Texas

Latitude 29° 00' 05" Longitude 095° 24' 31"

Regulated Entity Number: RN100218049

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O2159

Issuance Date: September 2, 2008

For the Commission

## TABLE OF CONTENTS

Section	Page
GENERAL TERMS AND CONDITIONS.....	1
SPECIAL TERMS AND CONDITIONS.....	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting:.....	1
Additional Monitoring Requirements.....	7
New Source Review Authorization Requirements.....	7
Compliance Requirements.....	7
Risk Management Plan.....	9
Protection of Stratospheric Ozone.....	9
Permit Location.....	9
Permit Shield (30 TAC § 122.148).....	9
ATTACHMENTS.....	11
Applicable Requirements Summary.....	12
Additional Monitoring Requirements.....	20
Permit Shield.....	23
New Source Review Authorization References.....	25
APPENDIX A.....	28
Acronym List.....	29

## **GENERAL TERMS AND CONDITIONS**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit shall be forwarded as one original and one copy to the TCEQ Regional Office for your site. Reports submitted must include a cover letter which identifies the following information: company name, TCEQ regulated entity number, site name, area name (if applicable), and Air Permits Division permit number.

## **SPECIAL TERMS AND CONDITIONS:**

### **Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting:**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
  - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

- D. Emission units subject to 40 CFR Part 63, Subpart FFFF as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.890 which incorporates the 40 CFR Part 63 Subpart by reference.
- E. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
  - (i) Title 30 TAC § 101.302 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
  - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)
  - (v) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
  - (vi) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- F. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
  - (i) Title 30 TAC § 101.352 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
  - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)
  - (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
  - (v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)
  - (vi) Title 30 TAC § 101.359 (relating to Reporting)
  - (vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)

- (viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- G. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
  - (i) Title 30 TAC § 101.372 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
  - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)
  - (v) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
  - (vi) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
- 2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
  - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

- G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
- A. For stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed on or before January 31, 1972, that are not listed in the Applicable Requirements Summary attachment, the permit holder shall comply with the following requirements:
    - (i) Title 30 TAC § 111.111(a)(1)(A) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(1)(E)
    - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
    - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(A), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that do not emit visible emissions such as vents that emit only VOC or vents that provide passive ventilation, such as plumbing vents; or vents that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(A) and Compliance Assurance Monitoring, as specified in the attached Applicable Requirements Summary and "Additional Monitoring Requirements:"
      - 1. An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
      - 2. For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for

each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

3. Records of all observations shall be maintained.
4. Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
5. Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(A).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) to determine if the source is in compliance with the opacity requirements. If an

opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

- (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
- (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
- (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: "Storage of Volatile Organic Compounds," the permit holder shall comply with the requirements of 30 TAC § 115.112(a)(1).

5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
- B. Title 40 CFR § 60.8 (relating to Performance Tests)
- C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
- D. Title 40 CFR § 60.12 (relating to Circumvention)



- E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
6. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

### **Additional Monitoring Requirements**

7. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
- A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield

9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

### **Compliance Requirements**

10. The permit holder shall certify compliance with all permit terms and conditions using, at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
11. Use of Emission Credits to Comply with Applicable Requirements:
  - A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) Offsets for Title 30 TAC Chapter 116
  - B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)
    - (ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1
    - (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
12. Use of Discrete Emission Credits to Comply with Applicable Requirements:
  - A. Unless other wise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

- (i) Title 30 TAC Chapter 115
  - (ii) Title 30 TAC Chapter 117
  - (iii) If applicable, offsets for Title 30 TAC Chapter 116
  - (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
- (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
  - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
  - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
  - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

### **Risk Management Plan**

13. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

### **Protection of Stratospheric Ozone**

14. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:
- A. Any on-site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed

only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

#### **Permit Location**

15. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on-site.

#### **Permit Shield (30 TAC § 122.148)**

16. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

## **ATTACHMENTS**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

**Applicable Requirements Summary**

**Unit Summary..... 13**

**Applicable Requirements Summary..... 14**

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement driver
PRONEOL	Chemical Manufacturing Process Unit Attributes	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-04	Emission Points/Stationary Vents/Process Vents	N/A	R5121-P	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
5-8-D8530	Emission Points/Stationary Vents/Process Vents	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-T8480	Emission Points/Stationary Vents/Process Vents	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-T8710	Emission Points/Stationary Vents/Process Vents	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-LOAD1	Loading/Unloading Operations	N/A	R5211-C	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
5-8-LOAD2	Loading/Unloading Operations	N/A	R5211-B	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
5-8-LOAD3	Loading/Unloading Operations	N/A	R5211-A	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
5-8-LOAD4	Loading/Unloading Operations	N/A	R5211-C	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
5-8-D8050	Storage Tanks/Vessels	N/A	R5112-B	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
5-8-D8050	Storage Tanks/Vessels	N/A	60Kb-B	40 CFR Part 60, Subpart Kb	No changing attributes.
5-8-D8050	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-D8170	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-D8250	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-D8270	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-D8550	Storage Tanks/Vessels	N/A	60Kb-D	40 CFR Part 60, Subpart Kb	No changing attributes.
5-8-D8720	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-R8200	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-R8250	Storage Tanks/Vessels	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-D8420	Treatment Process Attributes	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.
5-8-T8400	Treatment Process Attributes	N/A	63FFFF-A	40 CFR Part 63, Subpart FFFF	No changing attributes.

## Applicable Requirements Summary

Unit/Group/Processes		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
ID No.	Type			Name	Citation				
PRONEOL	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2450(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-04	EP	R5121-P	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(A) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream having a combined weight of volatile organic compounds (VOC) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
5-8-D8530	EP	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-T8480	EP	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF



5-8-T8710	EP	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-LOAD1	EU	R5211-C	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(1) § 115.212(a)(1)(A) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(ii) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(E) § 115.214(a)(1)(B) § 115.214(a)(1)(C)	At operations other than gasoline terminals, gasoline bulk plants, and marine terminals, vapors of VOC with a true vapor pressure of 0.5 psia or greater, must be controlled by one of the following methods.	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii) § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) § 115.215(4) § 115.215(9)	§ 115.216 § 115.216(1) § 115.216(1)(C) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None
5-8-LOAD2	EU	R5211-B	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
5-8-LOAD3	blank	R5211-A	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(3) § 115.212(a)(2) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(ii) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(D) § 115.214(a)(1)(B) § 115.214(a)(1)(C)	Leak-free requirements. All land-based loading and unloading of VOC shall be conducted such that:	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(iii)	None
5-8-LOAD4	blank	R5211-C	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(3) § 115.212(a)(2) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(ii) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(D) § 115.214(a)(1)(B) § 115.214(a)(1)(C)	Leak-free requirements. All land-based loading and unloading of VOC shall be conducted such that:	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(iii)	None

5-8-D8050	EU	R5112-B	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(a)(1) § 115.112(a)(3)	Tanks shall not store VOC unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(a) or Table II(a).	[G]§ 115.115(a) § 115.116(a)(4) § 115.116(a)(5) ** See Periodic Monitoring Summary	§ 115.116(a)(4) § 115.116(a)(5)	None
5-8-D8050	EU	60Kb-B	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(b)(1)	Storage vessels specified in § 60.112b(b) and equipped with a closed vent system and control device are to meet the specifications in § 60.112b(a)(3).	[G]§ 60.113b(c)(1) § 60.113b(c)(2) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) [G]§ 60.485(b) ** See Periodic Monitoring Summary	§ 60.115b [G]§ 60.115b(c) § 60.116b(a) § 60.116b(b)	[G]§ 60.113b(c)(1) § 60.115b
5-8-D8050	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-D8170	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-D8250	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF

5-8-D8270	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-D8550	EU	60Kb-D	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(3)	Storage vessels specified in § 60.112b(a) and equipped with a closed vent system/control device are to meet the specifications of § 60.112b(a)(3)(i)-(ii).	[G]§ 60.113b(c)(1) § 60.113b(c)(2) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) [G]§ 60.485(b)	§ 60.115b [G]§ 60.115b(c) § 60.116b(a) § 60.116b(b)	[G]§ 60.113b(c)(1) § 60.115b
5-8-D8720	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-R8200	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-R8250	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF

5-8-D8420	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
5-8-T8400	EU	63FFFF-A	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2485(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF

## **Additional Monitoring Requirements**

<b>Periodic Monitoring Summary.....</b>	<b>21</b>
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### Periodic Monitoring Summary

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 5-8-D8050	Applicable Form: OP-UA03
Control Device ID No.: T-8710	Control Device Type: Wet Scrubber
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-B
Pollutant: VOC	Main Standard: § 115.112(a)(1)
MONITORING INFORMATION	
Indicator: Pump not running	
Minimum Frequency: Once per day	
Averaging Period: N/A	
Deviation Limit: Pump not running and emission sources venting to scrubber. Water pressure drop below 0.5 lb/hr.	
Periodic Monitoring Text: Check that pump is running and check water pressure drop once per day. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	

### Periodic Monitoring Summary

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 5-8-D8050	Applicable Form: OP-UA03
Control Device ID No.: T-8710	Control Device Type: Wet Scrubber
APPLICABLE REGULATORY REQUIREMENT	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-B
Pollutant: VOC	Main Standard: § 60.112b(b)(1)
MONITORING INFORMATION	
Indicator: Pump not running	
Minimum Frequency: Once per day	
Averaging Period: N/A	
Deviation Limit: Pump not running and emission sources venting to scrubber. Water pressure drop below 0.5 lb/hr.	
Periodic Monitoring Text: Check that pump is running and check water pressure drop once per day. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	

## Permit Shield

Permit Shield.....	24
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## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/ Inclusive Units		
5-8-FUGS	N/A	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	Production area does not manufacture as a product or intermediate any chemicals defined by 115.10(41) - Synthetic organic chemical manufacturing process (40CFR 60.489 SOCM chemical list)
5-8-FUGS	N/A	40 CFR Part 60, Subpart VV	Production area does not manufacture as a product or intermediate any chemicals in 60.489 , SOCM chemical list.
5-8-SUMP1	N/A	30 TAC Chapter 115, Industrial Wastewater	The VOC concentration in the wastewater stream is less than 1,000 ppm.
5-8-SUMP2	N/A	30 TAC Chapter 115, Industrial Wastewater	The VOC concentration in the wastewater stream is less than 1,000 ppm.
5-8-D8150	N/A	40 CFR Part 60, Subpart Kb	Capacity of vessel is less than 10,600 gallons (exempt).
5-8-D8270	N/A	40 CFR Part 60, Subpart Kb	Capacity of vessel is less than 10,600 gallons (exempt).
5-8-D8440	N/A	40 CFR Part 60, Subpart Kb	Capacity of vessel is less than 10,600 gallons (exempt).
5-8-D8550	N/A	30 TAC Chapter 115, Storage of VOCs	The vapor pressure of the tank is less than 1.5 psia.
5-8-D8560	N/A	30 TAC Chapter 115, Storage of VOCs	The vapor pressure of the tank is less than 1.5 psia.
5-8-D8560	N/A	40 CFR Part 60, Subpart Kb	Capacity is greater than 39,000 gallons with a vapor pressure <0.5 psia.
5-8-D8570	N/A	40 CFR Part 60, Subpart Kb	Capacity is greater than 39,900 gallons with a vapor pressure <0.5 psia.

### **New Source Review Authorization References**

**New Source Review Authorization References..... 26**

**New Source Review Authorization References by Emission Unit..... 27**

### New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

PSD Permits	NA Permits
PSD Permit No.: PSDTX193M3	NA Permit No.:
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 7223A	Authorization No.: 8074A
Authorization No.:	Authorization No.:
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number:	Version No./Date:
<b>Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum</b>	
Permit No.:	Permit No.:

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name /Description	New Source Review Authorization
5-8-04	EMISSION POINT FOR FLAKER VENT SCRUBBER	7223A,PSDTX193M3
5-8-D8050	FORMALDEHYDE FEED TANK	7223A,PSDTX193M3
5-8-D8150	HYDROGENATION FEED DRUM	7223A,PSDTX193M3
5-8-D8170	T-8120 OVERHEADS DRUM	7223A,PSDTX193M3
5-8-D8250	HYDROGENATION DEGASSING DRUM	7223A,PSDTX193M3
5-8-D8270	DISTILLATION FEED DRUM	7223A,PSDTX193M3
5-8-D8420	T-8400 OVERHEADS DRUM	7223A,PSDTX193M3
5-8-D8440	CAUSTIC ADDTION DRUM WASTE WATER DISTILLATIO	7223A,PSDTX193M3
5-8-D8530	LOW PRESSURE VENT DRUM	7223A,PSDTX193M3
5-8-D8550	MOLTEN NEOL STORAGE DRUM	7223A,PSDTX193M3
5-8-D8560	NEOL SOLUTION BLEND TANK	7223A,PSDTX193M3
5-8-D8570	NEOL SOLUTION PRODUCT TANK	7223A,PSDTX193M3
5-8-D8720	HOTWELL (OUTSIDE)	7223A,PSDTX193M3
5-8-FUGS	NEOL FUGITIVES (VOC)	7223A,PSDTX193M3
5-8-LOAD1	TRUCK/RAILCAR LOADING (MOLTEN NEOL)	7223A,PSDTX193M3
5-8-LOAD2	TRUCK/RAILCAR LOADING (NEOL SOLUTION)	7223A,PSDTX193M3
5-8-LOAD3	TRUCK/RAILCAR LOADING (TMA UNLOADING)	7223A,PSDTX193M3
5-8-LOAD4	TRUCK/RAILCAR LOADING (FORMALDEHYDE UNLOADING)	7223A,PSDTX193M3
5-8-R8200	FIRST HYDROGENATION REACTOR	7223A,PSDTX193M3
5-8-R8250	2ND HYDROGENATION REACTOR	7223A,PSDTX193M3
5-8-SUMP1	FLAKER BUILDING SUMP	7223A,PSDTX193M3
5-8-SUMP2	NEOL SOLUTION SUMP	7223A,PSDTX193M3
5-8-T8400	WASTE WATER STRIPPER TOWER	7223A,PSDTX193M3
5-8-T8480	TMA VENT SCRUBBER	7223A,PSDTX193M3
5-8-T8710	FLAKER VENT SCRUBBER	7223A,PSDTX193M3
PRONEOL	NEOPENTYL GLYCOL PROCESS UNIT	7223A,PSDTX193M3

## APPENDIX A

Acronym List.....	29
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## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM.....	actual cubic feet per minute
AMOC.....	alternate means of control
ARP.....	Acid Rain Program
ASTM.....	American Society of Testing and Materials
B/PA.....	Beaumont/Port Arthur (nonattainment area)
CAM.....	Compliance Assurance Monitoring
CD.....	control device
COMS.....	continuous opacity monitoring system
CVS.....	closed-vent system
D/FW.....	Dallas/Fort Worth (nonattainment area)
DR.....	Designated Representative
EIP.....	El Paso (nonattainment area)
EP.....	emission point
EPA.....	U.S. Environmental Protection Agency
EU.....	emission unit
FCAA Amendments.....	Federal Clean Air Act Amendments
FOP.....	federal operating permit
GF.....	grandfathered
gr/100 scf.....	grains per 100 standard cubic feet
HAP.....	hazardous air pollutant
H/G.....	Houston/Galveston (nonattainment area)
H <sub>2</sub> S.....	hydrogen sulfide
ID No.....	identification number
lb/hr.....	pound(s) per hour
MMBtu/hr.....	Million British thermal units per hour
MRRT.....	monitoring, recordkeeping, reporting, and testing
NA.....	nonattainment
N/A.....	not applicable
NADB.....	National Allowance Data Base
NO <sub>x</sub> .....	nitrogen oxides
NSPS.....	New Source Performance Standard (40 CFR Part 60)
NSR.....	New Source Review
ORIS.....	Office of Regulatory Information Systems
Pb.....	lead
PBR.....	Permit by Rule
PM.....	particulate matter
ppmv.....	parts per million by volume
PSD.....	prevention of significant deterioration
RO.....	Responsible Official
SO <sub>2</sub> .....	sulfur dioxide
TSP.....	total suspended particulate
TVP.....	true vapor pressure
U.S.C.....	United States Code
VOC.....	volatile organic compound