FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Formosa Plastics Corporation, Texas

AUTHORIZING THE OPERATION OF
Formosa Plastics Corporation Texas
Polypropylene Plant
Plastics Materials

LOCATED AT
Calhoun County, Texas
Latitude 28° 41' 20" Longitude 96° 32' 50"
Regulated Entity Number: RN100218973

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: O1956 Issuance Date: January 16, 2013

For the Commission

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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).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

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 must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

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.

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. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not

exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

(i) Title 30 TAC § 111.111(a)(1)(B) (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)(B), 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_x, 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 are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic 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)(B).

(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) as soon as practicable, but no later than 24 hours after observing visible emissions 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. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

C. 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(c)(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 following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 61.05 (relating to Prohibited Activities)

B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)

C. Title 40 CFR § 61.09 (relating to Notification of Start-up)

D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)

E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)

F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)

G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)

H. Title 40 CFR § 61.15 (relating to Modification)

I. Title 40 CFR § 61.19 (relating to Circumvention)

7. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)

B. Title 40 CFR § 61.342(f)(1), and (2) (relating to Standards: General)

C. Title 40 CFR § 61.342(g) (relating to Standards: General)

D. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)

E. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)

F. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)

G. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)

H. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)

I. Title 40 CFR § 61.356(c) (relating to Recordkeeping Requirements)

J. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)

8. 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

9. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

   A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

   B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

   C. 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 "CAM 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 in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

   D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

10. 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

11. 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

12. 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.

13. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

14. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 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.

15. Use of Discrete Emission Credits to comply with the applicable requirements:

    A. Unless otherwise 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

16. 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

17. 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.

    B. The permit holder shall comply with 40 CFR Part 82, Subpart A for controlling the production, transformation, destruction, export or import of a controlled (ozone-depleting) substance or product as specified in 40 CFR § 82.1 - § 82.13 and the applicable Part 82 Appendices.

    C. The permit holder shall comply with the following 40 CFR Part 82, Subpart E requirements for labeling products using ozone-depleting substances:

        (i) Title 40 CFR § 82.100 (relating to Purpose)

        (ii) Title 40 CFR § 82.102(a)(1) - (3), (b), (c) (relating to Applicability);

        (iii) Title 40 CFR § 82.104 (relating to Definitions)

        (iv) Title 40 CFR § 82.106 - 112 (relating to Warning Statements and Labels)

        (v) Title 40 CFR § 82.114 (relating to Labeling Containers of Controlled [ozone - depleting] Substances)

        (vi) Title 40 CFR § 82.116 (relating to Incorporation of Products Manufactured with Controlled [ozone-depleting] Substances)

        (vii) Title 40 CFR § 82.120 (relating to Petitions)

        (viii) Title 40 CFR § 82.122 (relating Certification, Recordkeeping, and Notice requirements)

        (ix) Title 40 CFR § 82.124 (relating to Prohibitions)

D. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

E. The permit holder shall comply with 40 CFR Part 82, Subpart A, § 82.13 related to recordkeeping and reporting requirements for the production and consumption of ozone depleting substances.

Permit Location

18. 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)

19. 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 **14**

Applicable Requirements Summary **27**

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
1018	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
1018	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-2	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
1018	FLARES	N/A	63A-1	40 CFR Part 63, Subpart A	No changing attributes.
1018	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
1067	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
1067	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-2	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
1067	FLARES	N/A	63A-1	40 CFR Part 63, Subpart A	No changing attributes.
1067	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
1F-405	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
1F-405	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
2F-405	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
2F-405	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
B-231	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
B-242	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
B-292A	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
B-292B	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
B-406	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
B615	LOADING/UNLOADING OPERATIONS	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
B-620	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
B810	LOADING/UNLOADING OPERATIONS	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
B820	LOADING/UNLOADING OPERATIONS	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
C-352A	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-101	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-102	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-103	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-106	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-107	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
D-107	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
D-108	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
D-108	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
D-407	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
D-910	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
F-343	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-346	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-402	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-402	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
F-443	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-446	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-543	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-546	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-743A	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
F-746	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PP1-300	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PP1-400	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PP1-500	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP1-700	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PP1-FUG	FUGITIVE EMISSION UNITS	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PP1-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%, CTRL CONTINUOUS EMISSIONS = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP1-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3aF	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS LESS THAN 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP1-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3bF	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS LESS THAN 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP1-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3F	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)
PP1-UNIT	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
PP2-FUG	FUGITIVE EMISSION UNITS	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PP2-FUG	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
PP2-T1	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP2-T2	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PP2-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%, CTRL CONTINUOUS EMISSIONS = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP2-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP2-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3a	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS LESS THAN 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PP2-UNIT	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3b	40 CFR Part 60, Subpart DDD	UNCTRL'D ANNUAL EMISSIONS = UNCONTROLLED ANNUAL EMISSIONS LESS THAN 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR), WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%, CTRL CONTINUOUS EMISSIONS = SOME CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)
PRU UNIT	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
1018	EU	R1111-1	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.11(a).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
1018	EP	R5121-2	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(2)	None
1018	CD	63A-1	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
1018	EU	63FFFF-1	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

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
1067	EU	R1111-1	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.11(a).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
1067	EP	R5121-2	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B)	Any process vent containing one or more VOC or classes of VOC specified in §115.121(c)(1)(A)-(C), shall be controlled as per §115.122(c)(1).	[G]§ 115.125 § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(2)	None
1067	blank	63A-1	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
1067	EU	63FFFF-1	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

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
1F-405	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
1F-405	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
1F-405	EU	63FFFF-1	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
2F-405	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
2F-405	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
2F-405	EU	63FFFF-1	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
B-231	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
B-231	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
B-242	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
B-242	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
B-292A	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
B-292A	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
B-292B	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
B-292B	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
B-406	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
B-406	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
B615	EU	R5211-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
B-620	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
B810	EU	R5211-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
B820	EU	R5211-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
C-352A	EU	63FFFF-1	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
D-101	EU	63FFFF-1	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
D-102	EU	63FFFF-1	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

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
D-103	EU	63FFFF-1	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
D-106	EU	63FFFF-1	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
D-107	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
D-107	EU	63FFFF-1	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

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
D-108	EU	R5131-1	VOC	30 TAC Chapter 115, Water Separation	§ 115.132(c)(3) § 115.131(c)	VOC water separator compartments must be equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.	** See Periodic Monitoring Summary	None	None
D-108	EU	63FFFF-1	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
D-407	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
D-407	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
D-910	EU	63FFFF-1	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
F-343	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-343	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-346	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
F-346	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-402	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-402	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-402	EU	63FFFF-1	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

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
F-443	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-443	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-446	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-446	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
F-543	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-543	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-546	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-546	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
F-743A	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-743A	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
F-746	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
F-746	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-300	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
PP1-300	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
PP1-400	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
PP1-400	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-500	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
PP1-500	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
PP1-700	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
PP1-700	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-5 for sampling connection systems.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.562-2(b) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.565(l)
PP1-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for pressure relief devices in light-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP1-UNIT	EU	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-UNIT	PRO	60DDD-3aF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PP1-UNIT	PRO	60DDD-3aF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PP1-UNIT	PRO	60DDD-3bF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PP1-UNIT	PRO	60DDD-3bF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP1-UNIT	PRO	60DDD-3F	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PP1-UNIT	PRO	60DDD-3F	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PP1-UNIT	EU	63FFFF-1	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
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-5 for sampling connection systems.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.562-2(b) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.565(l)
PP2-FUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for pressure relief devices in light-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
PP2-FUG	EU	63FFFF-1	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
PP2-T1	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP2-T1	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
PP2-T2	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
PP2-T2	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(C) § 115.127(c)(1)	A vent gas stream having a concentration of the VOC specified in § 115.121(c)(1)(B) and (C) less than 30,000 ppmv is exempt from § 115.121(c)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(C)	None
PP2-UNIT	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP2-UNIT	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PP2-UNIT	PRO	60DDD-3	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PP2-UNIT	PRO	60DDD-3	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PP2-UNIT	PRO	60DDD-3a	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	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)
PP2-UNIT	PRO	60DDD-3a	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PP2-UNIT	PRO	60DDD-3b	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(g)	Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1).	[G]§ 60.564(d)	§ 60.565(a) § 60.565(a)(10) § 60.565(h)	§ 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7)
PP2-UNIT	PRO	60DDD-3b	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction /replacement, the vent stream is exempted.	None	None	None
PRU UNIT	EU	63FFFF-1	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

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CAM Summary

Unit/Group/Process Information	
ID No.: 1018	
Control Device ID No.: 1018	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-2
Pollutant: VOC	Main Standard: § 115.121(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame	
CAM Text: Monitor the presence of a flare pilot flame using a thermocouple or other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. Maintain records of alarm events and duration of alarm events. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.	

Note: This CAM summary applies to the process vents at Polypropylene Plant routing to Flare 1018 (EPN 1018) and not the flare itself. Since Flare 1018 is located at the Olefins Plant at Formosa Plastics, the monitoring requirements in this CAM summary are listed in this permit as a reference only. Actual monitoring of the pilot flame will be conducted in the Olefins Plant.

CAM Summary

Unit/Group/Process Information	
ID No.: 1067	
Control Device ID No.: 1067	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-2
Pollutant: VOC	Main Standard: § 115.121(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame	
CAM Text: Monitor the presence of a flare pilot flame using a thermocouple or other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. Maintain records of alarm events and duration of alarm events. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.	

Note: This CAM summary applies to the process vents at Polypropylene Plant routing to Flare 1067 (EPN 1067) and not the flare itself. Since Flare 1067 is located at the Olefins Plant at Formosa Plastics, the monitoring requirements in this CAM summary are listed in this permit as a reference only. Actual monitoring of the pilot flame will be conducted in the Olefins Plant.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: B-620	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Water Separation	SOP Index No.: R5131-1
Pollutant: VOC	Main Standard: § 115.132(c)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Quarterly	
Averaging Period: n/a*	
Deviation Limit: For a potential leak interface, the maximum deviation limit shall be 500 ppmv. For a seal around a shaft that passes through a cover opening, the maximum deviation limit shall be 10000 ppmv.	
Periodic Monitoring Text: Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration around the immediate area of the compartment in accordance with 40 CFR Part 60, Appendix A, Method 21. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve. The owner or operator may choose to adjust the detection instrument readings for the background organic concentration level. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data greater than the maximum VOC limit indicated in the Deviation Limit above shall be considered and reported as a deviation as required by § 122.145(2).	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: D-107	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Water Separation	SOP Index No.: R5131-1
Pollutant: VOC	Main Standard: § 115.132(c)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Quarterly	
Averaging Period: n/a*	
Deviation Limit: For a potential leak interface, the maximum deviation limit shall be 500 ppmv. For a seal around a shaft that passes through a cover opening, the maximum deviation limit shall be 10000 ppmv.	
Periodic Monitoring Text: Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration around the immediate area of the compartment in accordance with 40 CFR Part 60, Appendix A, Method 21. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve. The owner or operator may choose to adjust the detection instrument readings for the background organic concentration level. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data greater than the maximum VOC limit indicated in the Deviation Limit above shall be considered and reported as a deviation as required by § 122.145(2).	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: D-108	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Water Separation	SOP Index No.: R5131-1
Pollutant: VOC	Main Standard: § 115.132(c)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Quarterly	
Averaging Period: n/a*	
Deviation Limit: For a potential leak interface, the maximum deviation limit shall be 500 ppmv. For a seal around a shaft that passes through a cover opening, the maximum deviation limit shall be 10000 ppmv.	
Periodic Monitoring Text: Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration around the immediate area of the compartment in accordance with 40 CFR Part 60, Appendix A, Method 21. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve. The owner or operator may choose to adjust the detection instrument readings for the background organic concentration level. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data greater than the maximum VOC limit indicated in the Deviation Limit above shall be considered and reported as a deviation as required by § 122.145(2).	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Permit Shield

Permit Shield **60**

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		
1018	N/A	40 CFR Part 60, Subpart DDD	This facility is subject to NSPS DDD and MACT FFFF. Per 63.2535(h), if NSPS DDD equipment is also subject to MACT FFFF, you may comply only with the provisions of MACT FFFF.
1067	N/A	40 CFR Part 60, Subpart DDD	This facility is subject to NSPS DDD and MACT FFFF. Per 63.2535(h), if NSPS DDD equipment is also subject to MACT FFFF, you may comply only with the provisions of MACT FFFF.
B-620	N/A	40 CFR Part 63, Subpart VV	The separator is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of air emissions.
D-101	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity is less than 1,000 gallons.
D-101	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.
D-102	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity is less than 1,000 gallons.
D-102	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons
D-103	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity is less than 1,000 gallons.
D-103	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.
D-106	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity is less than 1,000 gallons.

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		
D-106	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.
D-107	N/A	40 CFR Part 63, Subpart VV	The separator is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of air emissions.
D-108	N/A	40 CFR Part 63, Subpart VV	The separator is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of air emissions.
PO-CT	N/A	40 CFR Part 63, Subpart Q	The cooling tower has not operated with chromium based water treatment chemicals on or after Sept. 8, 1994.
PP1-CT	N/A	40 CFR Part 63, Subpart Q	The cooling tower has not operated with chromium based water treatment chemicals on or after Sept. 8, 1994.
PP1-FUG	N/A	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	The site is not located in one of the applicable areas.
PP1-FUG	N/A	40 CFR Part 61, Subpart F	This site does not produce ethylene dichloride, vinyl chloride, or one or more polymers containing any fraction of polymerized vinyl chloride.
PP1-FUG	N/A	40 CFR Part 61, Subpart J	This site does not contain any sources in benzene service.

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		
PP1-FUG	N/A	40 CFR Part 61, Subpart V	No sources are operated in VHAP services.
PP1-FUG	N/A	40 CFR Part 63, Subpart H	This site is not a chemical manufacturing process unit that manufactures as a primary product one or more of the chemicals listed in 40 CFR 63, Subpart F.
PP1-FUG	N/A	40 CFR Part 63, Subpart I	This site does not produce any of the applicable chemicals listed in 63.190.
PP2-CT	N/A	40 CFR Part 63, Subpart Q	The cooling tower has not operated with chromium based water treatment chemicals on or after Sept. 8, 1994
PP2-FUG	N/A	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	The site is not located in one of the areas.
PP2-FUG	N/A	40 CFR Part 61, Subpart F	The site is not located in one of the applicable areas.
PP2-FUG	N/A	40 CFR Part 61, Subpart J	The site does not contain any source in benzene service.
PP2-FUG	N/A	40 CFR Part 61, Subpart V	No sources are operated in VHAP service.
PP2-FUG	N/A	40 CFR Part 63, Subpart H	The site is not a chemical manufacturing process unit that manufactures as a primary product one or more of the chemicals listed in 40 CFR 63 Subpart F.

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		
PP2-FUG	N/A	40 CFR Part 63, Subpart I	The site does not produce any of the applicable chemicals listed in 63.190.

New Source Review Authorization References

New Source Review Authorization References 65

New Source Review Authorization References by Emission Unit..... 66

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.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1222	Issuance Date: 05/28/2013
PSD Permit No.: PSDTX1224	Issuance Date: 11/21/2014
PSD Permit No.: PSDTX1230	Issuance Date: 11/30/2012
PSD Permit No.: PSDTX1232	Issuance Date: 05/28/2013
PSD Permit No.: PSDTX1237	Issuance Date: 05/28/2013
PSD Permit No.: PSDTX1240	Issuance Date: 05/28/2013
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.	
Authorization No.: 19200	Issuance Date: 05/28/2013
Authorization No.: 19201	Issuance Date: 05/28/2013
Authorization No.: 20203	Issuance Date: 11/21/2014
Authorization No.: 40157	Issuance Date: 05/28/2013
Authorization No.: 83763	Issuance Date: 11/30/2012
Authorization No.: 91780	Issuance Date: 05/28/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.371	Version No./Date: 09/04/2000
Number: 106.373	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

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
1018	OLEFINS 1 ELEVATED FLARE	19200, 19201, 20203, 91780, PSDTX1224, PSDTX1232, PSDTX1237, PSDTX1240
1067	OLEFINS 2 ELEVATED FLARE	19200, 19201, 20203, 40157, 91780, PSDTX1222, PSDTX1224, PSDTX1232, PSDTX1237, PSDTX1240
1F-405	VENT BAG FILTER TRAIN NO. 1	19200, 91780, PSDTX1237, PSDTX1240
2F-405	VENT BAG FILTER TRAIN NO. 2	19200, 91780, PSDTX1237, PSDTX1240
B-231	CO-CATALYST AREA DIP POT	19200, PSDTX1237
B-242	CO-CATALYST AREA DIP POT	19200, PSDTX1237
B-292A	PEROXIDE DIP POT	19200, PSDTX1237
B-292B	PEROXIDE DIP POT	19200, PSDTX1237
B-406	CATALYST SLURRY PREP SYSTEM DIP POT	19200, PSDTX1237
B615	IPA UNLOADING	19200, PSDTX1237
B-620	BOTTOM PHASE SEPARATOR	19200, PSDTX1237
B810	HEPTANE UNLOADING	19200, PSDTX1237
B820	IPA/HEPTANE UNLOADING	19200, PSDTX1237
C-352A	DRYING COLUMN	19200, PSDTX1237
D-101	CATALYST UNLOADING DRUM	19200, PSDTX1237
D-102	CATALYST FEED DRUM	19200, PSDTX1237

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
D-103	CATALYST FEED DRUM	19200, PSDTX1237
D-106	HEXANE HOLD DRUM	19200, PSDTX1237
D-107	NEUTRALIZATION DRUM	19200, PSDTX1237
D-108	SETTLE DRUM	19200, PSDTX1237
D-407	PEROXIDE DRUM	19200, 91780, PSDTX1237, PSDTX1240
D-910	HEXANE STORAGE TANK	19200, PSDTX1237
F-343	POWDER VENT GAS FILTER	19200, PSDTX1237
F-346	ADDITIVE FEED CONVEYING GAS FILTER	19200, PSDTX1237
F-402	MASTERBATCH VENT BAG FILTER	19200, 91780, PSDTX1237, PSDTX1240
F-443	POWDER VENT GAS FILTER	19200, PSDTX1237
F-446	ADDITIVE FEED CONVEYING GAS FILTER	19200, PSDTX1237
F-543	POWDER VENT GAS FILTER	19200, PSDTX1237
F-546	ADDITIVE FEED CONVEYING GAS FILTER	19200, PSDTX1237
F-743A	POWDER VENT BAG FILTER	19200, PSDTX1237
F-746	ADDITIVE FEED CONVEYING GAS FILTER	19200, PSDTX1237
PO-CT	COOLING TOWER	19200, 19201, PSDTX1232, PSDTX1237
PP1-300	DOWNSTREAM PELLET HANDLING TRAIN NO.1	19200, PSDTX1237
PP1-400	DOWNSTREAM PELLET HANDLING TRAIN NO.2	19200, PSDTX1237

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
PP1-500	DPWNSTREAM PELLET HANDLING TRAIN NO.3	19200, PSDTX1237
PP1-700	DOWNSTREAM PELLET HANDLING TRAIN NO.4	19200, PSDTX1237
PP1-CT	COOLING TOWER	19200, PSDTX1237
PP1-FUG	FUGITIVES, PP-1 UNIT	19200, PSDTX1237
PP1-UNIT	POLYPROPYLENE 1 UNIT	19200, PSDTX1237
PP2-CT	COOLING TOWER	19200, 19201, 40157, 91780, PSDTX1222, PSDTX1232, PSDTX1237, PSDTX1240
PP2-FUG	FUGITIVES, PP-2 UNIT	19200, 91780, PSDTX1237, PSDTX1240
PP2-T1	DOWNSTREAM PELLET HANDLING TRAIN NO.1	19200, 91780, PSDTX1237, PSDTX1240
PP2-T2	DOWNSTREAM PELLET HANDLING TRAIN NO.2	19200, 91780, PSDTX1237, PSDTX1240
PP2-UNIT	POLYPROPYLENE 2 UNIT	19200, PSDTX1237
PRU UNIT	PROPYLENE RECOVERY UNIT	19200, PSDTX1237

Appendix A

Acronym List 70

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
ElP ..... 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/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... 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_x ..... 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_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table 72

Major NSR Summary Table

Permit Number: 19200 and PSDTX1237				Issuance Date: 05/28/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
1018/1067	Olefins I and II Flares (6)	CO	14.31	44.65	6	6	
		CO MSS	513.53	26.27	6	6, 14, 15, 22, 23	
		NO_x	2.81	8.76	6	6	
		NO_x MSS	71.24	3.55	6	6, 14, 15, 22, 23	
		SO_2	0.02	0.07	6	6	
		VOC	10.39	15.40	6, 17	6, 17	17
		VOC MSS	949.97	39.05	6, 16, 17, 23	6, 14, 15, 16, 17, 18, 22, 23	17
B-231	Co-Catalyst Area Dip Pot	VOC	0.03	0.01			
B-242	Co-Catalyst Area Dip Pot	VOC	0.03	0.01			
B-292A	Peroxide Dip Pot	VOC	0.05	0.01			
B-292B	Peroxide Dip Pot	VOC	0.05	0.01			
B-360	Pellet Buffer Vessel	PM	0.01	0.06	4	4	4

Permit Number: 19200 and PSDTX1237					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
B-406	Catalyst Slurry Prep System Dip Pot	VOC	0.05	0.01			
B-460	Pellet Buffer Vessel	PM	0.01	0.06	4	4	4
B-560	Pellet Buffer Vessel	PM	0.01	0.06	4	4	4
B-760	Pellet Buffer Vessel	PM	0.01	0.06	4	4	4
F-343	Powder Vent Gas Filter	PM	0.04	0.07	4	4	4
		VOC	0.01	0.01			
F-346	Additive Feed Conveying Gas Filter	PM	0.02	0.01	4	4	4
		VOC	0.01	0.01			
F-367	Pellet Water Preseparator Sieve	PM	0.03	0.14	4	4	4
F-368	Classifier	PM	0.03	0.14	4	4	4
F-387	Silo Air Filters Train No. 1	PM	0.57	2.40	4	4	4
F-387A	Silos Cyclone Separator, Train No. 1	PM	0.47	1.26	4	4	4
F-443	Powder Vent Gas Filter	PM	0.04	0.07	4	4	4
		VOC	0.01	0.01			

Permit Number: 19200 and PSDTX1237					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-446	Additive Feed Conveying Gas Filter	PM	0.02	0.01	4	4	4
		VOC	0.01	0.01			
F-467	Pellet Water Preseparator Sieve	PM	0.03	0.14	4	4	4
F-468	Classifier	PM	0.03	0.14	4	4	4
F-487	Silo Air Filters Train No. 2	PM	0.57	2.40	4	4	4
F-487A	Silos Cyclone Separator, Train No. 2	PM	0.47	1.26	4	4	4
F-541	500 Line-Off Spec Silo Bag Filter	PM	0.20	0.85	4	4	4
F-543	Powder Vent Gas Filter	PM	0.04	0.07	4	4	4
		VOC	0.01	0.01			
F-546	Additive Feed Conveying Gas Filter	PM	0.02	0.01	4	4	4
		VOC	0.01	0.01			
F-567	Pellet Water Preseparator Sieve	PM	0.03	0.14	4	4	4
F-568	Classifier	PM	0.03	0.14	4	4	4

Permit Number: 19200 and PSDTX1237				Issuance Date: 05/28/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-575	300/400 Line - Off Spec Silo Bag Filter	PM	0.58	2.25	4	4	4
F-587	Silo Air Filters Train No. 3	PM	0.57	2.40	4	4	4
F-587A	Silos Cyclone Separator, Train No. 3	PM	0.47	1.26	4	4	4
F-705	Auto Packer Cyclone	PM	0.14	0.59	4	4	4
F-706A	Truck Silo Cyclone	PM	0.14	0.59	4	4	4
F-706B	Auto Packer Cyclone	PM	0.14	0.59	4	4	4
F-711A	Hopper Silo Cyclone Train No. 1	PM	0.14	0.59	4	4	4
F-711B	Hopper Silo Cyclone Train No. 2	PM	0.14	0.59	4	4	4
F-711G	Streamer Remover Bag Filter, Train No. 4	PM	0.40	1.59	4	4	4
F-741	700 Line Off Spec Silo Bag Filter	PM	0.12	0.47	4	4	4
F-743	Additive Vent Gas Filter	PM	0.01	0.01	4	4	4

Permit Number: 19200 and PSDTX1237					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-743A	Powder Vent Bag Filter	PM	0.01	0.01	4	4	4
		VOC	0.01	0.01			
F-746	Additive Feed Conveying Gas Filter	PM	0.02	0.01	4	4	4
		VOC	0.01	0.01			
F-747A	Bag Dumping Unit	PM	0.01	0.01	4	4	4
F-747B	Bag Dumping Unit	PM	0.01	0.01	4	4	4
F-747C	Bag Dumping Unit	PM	0.01	0.01	4	4	4
F-767	Pellet Water Preseparator Sieve	PM	0.03	0.14	4	4	4
F-768	Classifier	PM	0.03	0.14	4	4	4
F-781A	Product Silo Cyclone Train No. 1	PM	0.38	1.65	4	4	4
F-781B	Product Silo Cyclone Train No. 2	PM	0.38	1.65	4	4	4
F-781C	Product Silo Cyclone Train No. 3	PM	0.38	1.65	4	4	4
F-787	Silo Air Filters Train No. 4	PM	0.48	1.87	4	4	4

Permit Number: 19200 and PSDTX1237				Issuance Date: 05/28/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-787A	Silos Cyclone Separator, Train No. 4	PM	0.47	1.26	4	4	4
F-975	C Train Loading Station Cyclone Separator	PM	0.30	0.61	4	4	4
F-981	Product Silo Air Cyclone Train No. 4	PM	1.01	3.98	4	4	4
H-371	Pellet Metering Rotary Feeder	PM	0.01	0.01	4	4	4
H-471	Pellet Metering Rotary Feeder	PM	0.01	0.01	4	4	4
H-571	Pellet Metering Rotary Feeder	PM	0.01	0.01	4	4	4
H-769	Pellet Rotafeeder	PM	0.01	0.01	4	4	4
H-773	Pellet Rotafeeder	PM	0.01	0.01	4	4	4
PO-CT	Cooling Tower	VOC	0.88	3.86			
PP1-300	Downstream Pellet Handling PP-1, Train No. 1 (7)	VOC	2.75	3.03	13	7, 9, 13	
PP1-400	Downstream Pellet Handling PP-1, Train No. 2 (8)	VOC	2.88	3.14	13	7, 9, 13	

Permit Number: 19200 and PSDTX1237					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
PP1-500	Downstream Pellet Handling PP-1, Train No. 3 (9)	VOC	2.39	3.16	13	7, 9, 13	
PP1-700	Downstream Pellet Handling PP-1, Train No. 4 (10)	VOC	1.06	2.96	13	7, 9, 13	
PP1-CT	Cooling Tower	VOC	0.44	1.93	12	12	12
PP1-FUG	Fugitives PP-1 Unit (5)	PM	0.05	0.27			
		VOC	3.72	16.28	3, 10, 11	3, 10, 11	3, 10
T-367	Dryer Train No. 1	PM	0.34	1.25	4	4	4
T-467	Dryer Train No. 2	PM	0.41	1.76	4	4	4
T-567	Dryer Train No. 3	PM	0.34	1.25	4	4	4
T-767	Dryer Train No. 4	PM	0.41	1.76	4	4	4
Maintenance, Startup, and Shutdown (MSS)							
PPI-MAINT	MSS to Atmosphere	VOC	102.27	1.81	17, 22	14, 15, 17, 18, 22	
		PM	3.19	0.42		14	

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) PP I vents shall all be routed to one flare or the other.

(7) Total VOC emissions from the following emissions points:
B-360, F-367, F-368, F-387, F-387A, F-575, F-705, F-706A, F-706B, F-781A, F-711A, F-711G, F-711B, F-975, and T-367.

(8) Total VOC emissions from the following emissions points:
B-460, F-467, F-468, F-487, F-487A, F-575, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-781B, F-975, and T-467.

(9) Total VOC emissions from the following emissions points:
B-560, F-541, F-567, F-568, F-587A, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-587, F-781C, F-975, and T-567.

(10) Total VOC emissions from the following emissions points:
B-760, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-741, F-767, F-768, F-787, F-787A, F-975, F-981, and T-767.

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
2-HDPE	Downstream Pellet Handling	VOC	4.96	21.73	12	4, 12	13
3-HDPE	Downstream Pellet Handling	VOC	3.41	13.61	12	4, 12	13
3T501	3T-501 Hexane Tank	VOC	0.29	0.72	3, 11	3, 11	3, 13
3T502	3T-502 Hexane Tank	VOC	0.35	0.72	3, 11	3, 11	3, 13
3T503	3T-503 Hexane Tank	VOC	0.35	0.72	3, 11	3, 11	3, 13
5T6010	Tank T-501	VOC	0.56	0.53	3, 11	3, 11	3, 13
5T6020	Tank T-502	VOC	0.56	0.53	3, 11	3, 11	3, 13
5T6030	Tank 2T-502	VOC	0.56	0.53	3, 11	3, 11	3, 13
5T6040	Tank T-503	VOC	0.56	0.53	3, 11	3, 11	3, 13
5T6050	Tank 2T-503	VOC	0.56	0.53	3, 11	3, 11	3, 13
D301	HDPE Train A Dryer Vent (11)	VOC	44.00	11.80	12	4, 12	13
2D-301	HDPE Train B Dryer Vent (11)	VOC	44.00	11.80	12	4, 12	13
3D-301	HDPE Train C Dryer Vent (11)	VOC	44.00	11.80	12	4, 12	13
F-302	Powder Silo Bag Filter	PM_{10}	0.10	0.42	6	6	6, 13
2F-302	Powder Silo Bag Filter	PM_{10}	0.10	0.42	6	6	6, 13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
3F-302	Powder Silo Bag Filter	PM_{10}	0.16	0.62	6	6	6, 13
F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
2F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
3F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
2F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
3F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01	6	6	6, 13
3F708A	Elutriate Bag Filter (8)	PM_{10}	1.34	4.35	6	6	6, 13
F-701	Blend Silo Bag Filter	PM_{10}	0.09	0.37	6	6	6, 13
2F-701	Blend Silo Bag Filter	PM_{10}	0.09	0.37	6	6	6, 13
3F-701A	Blending Silo Bag Filter	PM_{10}	0.35	1.55	6	6	6, 13
3F-701B	Blending Silo Bag Filter	PM_{10}	0.35	1.55	6	6	6, 13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-708A	Hopper Car Bag Filter F-708A	PM_{10}	0.05	0.21	6	6	6, 13
F-708B	Hopper Car Bag Filter F-708B	PM_{10}	0.05	0.21	6	6	6, 13
S-705	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
2S-705	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
S-707	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
2S-707	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
S-708A	Hopper Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
S-708B	Hopper Silo Cyclone Separator	PM_{10}	0.06	0.28	6	6	6, 13
S-709A	Product Silos Cyclone Separator S-709A	PM_{10}	0.06	0.28	6	6	6, 13
S-709B	Product Silos Cyclone Separator S-709B	PM_{10}	0.06	0.28	6	6	6, 13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10	6	6	6, 13
2S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10	6	6	6, 13
3S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10	6	6	6, 13
V102	Catalyst Dip Pot (10)	VOC	0.53	0.03			
Z405	Additive Dust Collector	PM_{10}	0.02	0.08	6	6	6, 13
2Z405	Additive Dust Collector	PM_{10}	0.02	0.08	6	6	6, 13
Z410	Powder Vacuum Cleaner (9)	PM_{10}	0.01	0.01	6	6	6, 13
PO-CT	Cooling Tower	VOC	1.32	5.79	3, 10	3, 10	3, 10, 13
PP2-CT	Cooling Tower	VOC	1.32	5.79	3, 10	3, 10	3, 10, 13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
H923A	Thermal Incinerator (6)	CO	15.42	-	14, 17, 18	14, 17, 18	13, 17, 18
		CO MSS	75.00	18.70	14, 18	14, 18, 20, 21, 23	13, 18
		NO_x MSS	-	1.00	14	14, 20, 21, 23	13
		NO_x	8.64	-	14, 17	14, 17	13, 17
		PM_{10}	0.76	-	14	14	13
		SO_2	0.05	-	14	14	13
		SO_2 MSS (12)	0.10	0.10	14, 22	14, 20, 21, 23	13
		VOC	1.88	-	14, 15, 17, 19	14, 15, 17, 19	13, 17, 19
		VOC MSS (12)	-	0.20	14, 15, 19, 22	14, 15, 19, 20, 21, 23	13, 19

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
H923B	Thermal Incinerator (6)	CO	15.42	-	14, 17, 18	14, 17, 18	13, 17, 18
		CO MSS	75.00	18.70	14, 18	14, 18, 20, 21, 23	13, 18
		NO_x	8.64	-	14, 17	14, 17	13, 17
		NO_x MSS	-	1.00	14	14, 20, 21, 23	13
		PM_{10}	0.76	-	14	14	13
		SO_2	0.05	-	14	14	13
		SO_2 MSS (12)	0.10	0.10	14, 22	14, 20, 21, 23	13
		VOC	1.88	-	14, 15, 17, 19	14, 15, 17, 19	13, 17, 19
		VOC MSS (12)	-	0.20	14, 15, 19, 22	14, 15, 19, 20, 21, 23	13, 19
H923A/H923B	Thermal Incinerators (Combined Annual Emissions from Incinerators H923A and H923B)	CO	-	55.74	14, 17, 18	14, 17, 18	13, 17, 18
		NO_x	-	31.23	14, 17	14, 17	13, 17
		PM_{10}	-	2.75	14	14	13
		SO_2	-	0.17	14	14	13
		VOC	-	6.80	14, 15, 17, 19	14, 15, 17, 19	13, 17, 19
2F-302B	Powder Silo Bag Filter	PM_{10}	0.10	0.44	6	6	6, 13
3F-302B	Powder Silo Bag Filter	PM_{10}	0.16	0.21	6	6	6, 13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
3F-708B	Railcar Bag Filter (8)	PM_{10}	0.52	1.60	6	6	6, 13
3V305	Seal Dip Pot (10)	VOC	0.01	0.01			
1018	Olefins I Elevated Flare (7)	CO	10.70	-	7	7	13
		CO MSS	65.30	9.90	7	7, 20, 21, 23, 26	13
		NO_x	2.10	-	7	7	13
		NO_x MSS	9.00	1.50	7	7, 20, 21, 23, 26	13
		SO_2	0.01	-	7	7	13
		VOC	13.12	-	3, 7, 19	3, 7, 19	3, 13
		VOC MSS	243.20	16.70	7, 19, 22	7, 19, 20, 21, 23, 26	13
1067	Olefins II Elevated Flare (7)	CO	10.70	-	7	7	13
		CO MSS	65.30	9.90	7	7, 20, 21, 23, 26	13
		NO_x	2.10	-	7	7	13
		NO_x MSS	9.00	1.50	7	7, 20, 21, 23, 26	13
		SO_2	0.01	-	7	7	13
		VOC	13.12	-	3, 7, 19	3, 7, 19	3, 13
		VOC MSS	243.20	16.70	7, 19, 22	7, 19, 20, 21, 23, 26	13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
Annual Emission Cap (7)		CO	-	14.06	7	7	13
		NO_x	-	2.76	7	7	13
		SO_2	-	0.01	7	7	13
		VOC	-	34.48	3, 7	3, 7	3, 13
PE-FUG	Plant Process Fugitives (5)	PM_{10}	0.06	0.27			
		VOC	25.31	110.87	3, 8, 9	3, 8, 9	3, 8, 13
Maintenance, Startup, And Shutdown (MSS)							
D301 2D-301 3D-301	Dryer Vent MSS Activities	VOC	132.00	37.50		20	13
PE-MSS	MSS to Atmosphere	VOC	80.60	2.50	22, 26	20, 21, 23, 26	13
		PM	0.20	0.30		20, 21	13

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The emissions from the incinerator stacks are the total emissions related to disposal of waste gases from the high density polyethylene, linear low density polyethylene and polypropylene plants.

(7) The emissions contributed only from this permitted facility which is the HDPE I unit. The vents from the HDPE I unit to the Olefins I Elevated Flare (EPN 1018) and the Olefins II Elevated Flare (EPN 1067) are limited to the following scenarios:

A. All vents from the HDPE I unit can vent to EPN 1018 with no vents from the HDPE I unit venting at the same time to EPN 1067 for 5,256 hours per year.

B. All vents from the HDPE I unit can vent to EPN 1067 with no vents from the HDPE I unit venting at the same time to EPN 1018 for 5,256 hours per year.

(8) 7,500 hours per year of operation

(9) 730 hours per year of operation

(10) 100 hours per year of operation

(11) The combined total annual emissions from EPNs D301, 2D-301, and 3D-301 shall not exceed 11.8 tons per year.

(12) Total VOC emissions from EPNs 1018, 1067, H923A, and H923B shall not exceed 66 lb/hr during planned MSS events. Total SO_2 emissions from EPNs H923A and H923B shall not exceed 0.1 lb.hr during planned MSS events.

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-001	Final Degasser No. 1	VOC	10.95	29.66	4	3, 4	4
		PM	0.44	1.94	8	3, 8	8
		PM_{10}	0.44	1.94	8	3, 8	8
		$PM_{2.5}$	0.44	1.94	8	3, 8	8
LL-003	Extruder Feed Bin No. 1	VOC	2.37	9.72	4	3, 4	4
LL-004	Extruder Feed Bin No. 2	VOC	2.37	9.72	4	3, 4	4
LL-005	Catalyst Filling Vent No. 1	VOC	9.65	0.43	17, 18	3, 17, 18	17, 18
LL-006	Catalyst Filling Vent No. 2	VOC	8.80	0.10		3	
LL-007	Buffer Silo No. 1	VOC	2.28	6.48		3	
		PM	0.10	0.46	8	3, 8	8
		PM_{10}	0.10	0.46	8	3, 8	8
		$PM_{2.5}$	0.10	0.46	8	3, 8	8

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-008	Powder Bin No. 1	VOC	1.20	5.28	17, 18	3, 17, 18	17, 18
		PM	0.10	0.46	8	3, 8	8
		PM_{10}	0.10	0.46	8	3, 8	8
		$PM_{2.5}$	0.10	0.46	8	3, 8	8
LL-011	Blending Silo No. 1	PM	0.18	0.78	8	8	8
		PM_{10}	0.18	0.78	8	8	8
		$PM_{2.5}$	0.18	0.78	8	8	8
LL-012	Blending Silo No. 2	PM	0.18	0.78	8	8	8
		PM_{10}	0.18	0.78	8	8	8
		$PM_{2.5}$	0.18	0.78	8	8	8
LL-013	Product Silo No. 1	PM	0.13	0.58	8	8	8
		PM_{10}	0.13	0.58	8	8	8
		$PM_{2.5}$	0.13	0.58	8	8	8
LL-014	Product Silo No. 2	PM	0.13	0.58	8	8	8
		PM_{10}	0.13	0.58	8	8	8
		$PM_{2.5}$	0.13	0.58	8	8	8

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-015	Hopper Car Silo No. 1 and Hopper Car Loading No. 1	PM	0.18	0.79	8	8	8
		PM_{10}	0.18	0.79	8	8	8
		$PM_{2.5}$	0.18	0.79	8	8	8
LL-016	Hopper Car Silo No. 2 and Hopper Car Loading No. 2	PM	0.18	0.79	8	8	8
		PM_{10}	0.18	0.79	8	8	8
		$PM_{2.5}$	0.18	0.79	8	8	8
LL-017	Truck Silo No. 1	PM	0.26	1.16	8	8	8
		PM_{10}	0.26	1.16	8	8	8
		$PM_{2.5}$	0.26	1.16	4, 8	4, 8	4, 8
LL-019	Auto-Packer Silo No. 1	PM	0.26	1.16	8	8	8
		PM_{10}	0.26	1.16	8	8	8
		$PM_{2.5}$	0.26	1.16	8	8	8
LL-023	Additive Mix Tanks Bag Filter	PM	0.01	0.02	8	3, 8	8
		PM_{10}	0.01	0.02	8	3, 8	8
		$PM_{2.5}$	0.01	0.02	8	3, 8	8

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-025	Master Batch No. 1	PM	0.06	0.24	8	3, 8	8
		PM_{10}	0.06	0.24	8	3, 8	8
		$PM_{2.5}$	0.06	0.24	8	3, 8	8
LL-026	Master Batch No. 2	PM	0.06	0.24	8	3, 8	8
		PM_{10}	0.06	0.24	8	3, 8	8
		$PM_{2.5}$	0.06	0.24	8	3, 8	8
Process	Process Fugitives (5)	VOC	9.96	43.62	5, 6, 14, 15, 16	5, 6, 14, 15, 16	5, 6, 14

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			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LI-01	Incinerator	VOC	1.24	5.43	5, 6, 11, 12, 17, 18	5, 6, 11, 12, 17, 18	5, 6, 17, 18
		VOC MSS (7)	1303.70	14.93	11, 12, 17, 18, 20, 21	11, 12, 17, 18, 19, 20, 21, 22, 26	17, 18
		PM	0.24	1.06			
		PM_{10}	0.24	1.06			
		$PM_{2.5}$	0.24	1.06			
		NO_x	8.40	36.80	17, 18	17, 18	17, 18
		NO_x MSS (7)	79.30	1.04	17, 18	17, 18, 19, 20, 26	17, 18
		CO	8.98	39.34	17, 18	17, 18	17, 18
		CO MSS (7)	573.00	7.53	17, 18	17, 18, 19, 20, 26	17, 18
		SO_2	0.04	0.18			
1018	Olefins I Elevated Flare (6)	VOC	65.07	6.39	5, 6, 9, 10, 12	5, 6, 9, 10, 12	5, 6
		VOC MSS (7)	1303.70	14.93	9, 10, 12, 20, 21	9, 10, 12, 19, 20, 21, 22, 26	
		NO_x	5.31	0.58	9, 10	9, 10	
		NO_x MSS (7)	79.30	1.04	9, 10	9, 10, 19, 20, 26	
		CO	38.24	3.99	9, 10	9, 10	
		CO MSS (7)	573.00	7.53	9, 10	9, 10, 19, 20, 26	

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			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
1067	Olefins II Elevated Flare (6)	VOC	65.07	6.39	5, 6, 9, 10, 12	5, 6, 9, 10, 12	5, 6
		VOC MSS (7)	1303.70	14.93	9, 10, 12, 20, 21	9, 10, 12, 19, 20, 21, 22, 26	
		NO_x	5.31	0.58	9, 10	9, 10	
		NO_x MSS (7)	79.30	1.04	9, 10	9, 10, 19, 20, 26	
		CO	38.24	3.99	9, 10	9, 10	
		CO MSS (7)	573.00	7.53	9, 10	9, 10, 19, 20, 26	
LL-CT	LLDPE Cooling Tower	VOC	1.77	7.72	6, 13	6, 13	6
		PM	0.42	1.85			
		PM_{10}	0.33	1.44			
		$PM_{2.5}$	0.01	0.01			
LL-009	Weight Feeder Surge Hopper F1-850	PM	0.01	0.05	8	8	8
		PM_{10}	0.01	0.05	8	8	8
		$PM_{2.5}$	0.01	0.05	8	8	8
LL-010	Weight Feeder Surge Hopper F2-850	PM	0.01	0.05	8	8	8
		PM_{10}	0.01	0.05	8	8	8
		$PM_{2.5}$	0.01	0.05	8	8	8

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			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-030	Train 1 Re-Run Filter S1-855	PM	0.27	1.07	8	8	8
		PM_{10}	0.27	1.07	8	8	8
		$PM_{2.5}$	0.27	1.07	8	8	8
LL-031	Train 2 Re-Run Filter S2-855	PM	0.27	1.07	8	8	8
		PM_{10}	0.27	1.07	8	8	8
		$PM_{2.5}$	0.27	1.07	8	8	8
LL-032	Train 1 Masterbatch Hopper F1-830A/B	PM	0.01	0.03	8	3, 8	8
		PM_{10}	0.01	0.03	8	3, 8	8
		$PM_{2.5}$	0.01	0.03	8	3, 8	8
LL-033	Train 2 Masterbatch Hopper F2-830A/B	PM	0.01	0.03	8	3, 8	8
		PM_{10}	0.01	0.03	8	3, 8	8
		$PM_{2.5}$	0.01	0.03	8	3, 8	8
LL-034	Train 1 Q1-830 Feeder Filter S1-830	PM	0.01	0.01	8	3, 8	8
		PM_{10}	0.01	0.01	8	3, 8	8
		$PM_{2.5}$	0.01	0.01	8	3, 8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-035	Train 2 Q2-830 Feeder Filter S2-830	PM	0.01	0.01	8	3, 8	8
		PM_{10}	0.01	0.01	8	3, 8	8
		$PM_{2.5}$	0.01	0.01	8	3, 8	8
LL-036	Train 1 F1-810 Vent Filter S1-811	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-037	Train 2 F2-810 Vent Filter S2-811	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-038	Train 1 F1-812 Vent Filter S1-812	PM	0.02	0.07	8	3, 8	8
		PM_{10}	0.02	0.07	8	3, 8	8
		$PM_{2.5}$	0.02	0.07	8	3, 8	8
LL-039	Train 2 F2-812 Vent Filter S2-812	PM	0.02	0.07	8	3, 8	8
		PM_{10}	0.02	0.07	8	3, 8	8
		$PM_{2.5}$	0.02	0.07	8	3, 8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-040	Train 1 F1-800 Vent Filter S1-800.1	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-041	Train 2 F2-800 Vent Filter S2-800.1	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-042	Train 1 F1-810 Feeder Filter Q1-810	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-043	Train 2 F2-810 Feeder Filter Q2-810	PM	0.02	0.06	8	3, 8	8
		PM_{10}	0.02	0.06	8	3, 8	8
		$PM_{2.5}$	0.02	0.06	8	3, 8	8
LL-044	Train 1 F1-856 Feeder Filter Q1-856	PM	0.02	0.06	8	8	8
		PM_{10}	0.02	0.06	8	8	8
		$PM_{2.5}$	0.02	0.06	8	8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-045	Train 2 F2-856 Feeder Filter Q2-856	PM	0.02	0.06	8	8	8
		PM_{10}	0.02	0.06	8	8	8
		$PM_{2.5}$	0.02	0.06	8	8	8
LL-046	Train 1 X1-856 Feeder Filter C1-856	PM	0.02	0.06	8	8	8
		PM_{10}	0.02	0.06	8	8	8
		$PM_{2.5}$	0.02	0.06	8	8	8
LL-047	Train 2 X2-856 Feeder Filter C2-856	PM	0.02	0.06	8	8	8
		PM_{10}	0.02	0.06	8	8	8
		$PM_{2.5}$	0.02	0.06	8	8	8
LL-048	F1-325 Waste Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-049	F2-325 Waste Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8

Permit Number: 20203 and PSDTX1224				Issuance Date: 11/21/2014			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-050	S1-412 Waste Powder	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-051	S2-412 Waste Powder	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-052	S1-440 Sieve Clean-Out	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-053	S2-440 Sieve Clean-Out	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-054	F1-445 Refuse Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-055	F2-445 Refuse Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-056	F1-553 Refuse Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8
LL-057	F2-553 Refuse Hopper	VOC	0.01	0.01			
		PM	0.01	0.04	8	8	8
		PM_{10}	0.01	0.04	8	8	8
		$PM_{2.5}$	0.01	0.04	8	8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-059	F2-800 Bag Filter	VOC	0.01	0.01		3	
		PM	0.02	0.07	8	3, 8	8
		PM_{10}	0.02	0.07	8	3, 8	8
		$PM_{2.5}$	0.02	0.07	8	3, 8	8
LL-060	F2-810 Bag Filter	VOC	0.01	0.01		3	
		PM	0.02	0.07	8	3, 8	8
		PM_{10}	0.02	0.07	8	3, 8	8
		$PM_{2.5}$	0.02	0.07	8	3, 8	8
LL-061	C1-841 Pellet Dryer	PM	0.01	0.02	8	3, 8	8
		PM_{10}	0.01	0.02	8	3, 8	8
		$PM_{2.5}$	0.01	0.02	8	3, 8	8
LL-062	C2-841 Pellet Dryer	PM	0.01	0.02	8	3, 8	8
		PM_{10}	0.01	0.02	8	3, 8	8
		$PM_{2.5}$	0.01	0.02	8	3, 8	8
LL-063	S1-847 Bag Filter	PM	0.01	0.03	8	3, 8	8
		PM_{10}	0.01	0.03	8	3, 8	8
		$PM_{2.5}$	0.01	0.03	8	3, 8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-064	S2-847 Bag Filter	PM	0.01	0.03	8	3, 8	8
		PM_{10}	0.01	0.03	8	3, 8	8
		$PM_{2.5}$	0.01	0.03	8	3, 8	8
LL-065	C1-400 Compressor Lube Oil Container	VOC	0.45	1.52			
LL-066	C2-400 Compressor Lube Oil Container	VOC	0.45	1.52			
LL-067	FO-912 Hexene Storage Tank	VOC	0.53	0.81	5, 23	5, 23	5
LL-068	FO-913 Hexene Storage Tank	VOC	0.53	0.81	5, 23	5, 23	5
LL-069	Hopper Car Unloading Bag Filter	PM	0.03	0.09	8	8	8
		PM_{10}	0.03	0.09	8	8	8
		$PM_{2.5}$	0.03	0.09	8	8	8
LL-070	Elutriator Cyclone S1-897	PM	0.14	0.60	8	8	8
		PM_{10}	0.09	0.41	8	8	8
		$PM_{2.5}$	0.02	0.09	8	8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 11/21/2014		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
LL-071	Elutriator Cyclone S2-897	PM	0.14	0.60	8	8	8
		PM_{10}	0.09	0.41	8	8	8
		$PM_{2.5}$	0.02	0.09	8	8	8
Maintenance, Startup, and Shutdown (MSS)							
LLDPE-MNT	MSS to Atmosphere	VOC MSS	226.2	3.59	20, 21, 23, 26	19, 20, 21, 22, 23. 26	
		PM MSS	1.70	0.04		19, 20	
		PM_{10} MSS	1.70	0.04		19, 20	
		$PM_{2.5}$ MSS	1.70	0.04		19, 20	
LLDPE-TMP	MSS from Temporary Sources	NO_x MSS (7)	79.30	1.04		19, 20	
		CO MSS (7)	573.00	7.53		19, 20	
		VOC MSS (7)	1303.70	14.93	20, 21	19, 20, 21	

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3)

VOC	-	volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x	-	total oxides of nitrogen
SO_2	-	sulfur dioxide
PM	-	total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10}	-	total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$	-	particulate matter equal to or less than 2.5 microns in diameter
CO	-	carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The emissions contributed only from this permitted facility which is the Linear Low Density Polyethylene (LLDPE) unit. The vents from the LLDPE unit to the Olefins I Elevated Flare (EPN 1018) and the Olefins II Elevated Flare (EPN 1067) are limited to the following scenarios:

A. All vents from the LLDPE unit can vent to EPN 1018 with no vents from the LLDPE unit venting at the same time to EPN 1067.

B. All vents from the LLDPE unit can vent to EPN 1067 with no vents from the LLDPE unit venting at the same time to EPN 1018.

This exception does not exempt the holder of this permit from the requirements of 30 TAC §§ 101.201 and 101.211.

(7) TPY allowable emission rates for CO MSS, NO_x MSS, and VOC MSS reflect combined cap for flares LI-01, LLDPE-TMP, 1018 and 1067.

Permit Number: 40157 and PSDTX1222					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
1	Flash Tank Cleanout Screen	VOC	2.30	0.14			
2	Powder Storage Tank	PM	0.05	0.21	7	7	7
3	Pellet Dryer	VOC	0.66	2.90	6, 14, 15	5, 14, 15	14, 15
004a 004b	Pellet Blending and Storage I (6) Pellet Blending and Storage II (6)	VOC	1.38	6.05	14, 15	5, 14, 15	14, 15
		PM	0.26	1.13	7	5, 7	7
005a 005b 005c 005d	Pellet Loadout Filter I (7) Pellet Loadout Filter II (7) Pellet Loadout Filter III (7) Pellet Loadout Filter IV (7)	VOC	1.38	6.05	14, 15	5, 14, 15	14, 15
		PM	0.49	2.14	7	5, 7	7
6	Process Fugitives (5)	VOC	15.34	67.19	3, 12, 13	3, 12, 13	3, 12
11	Fluff Hopper Car Loading Filter	PM	0.04	0.15	7	7	7
12	Pellet Hopper Car Loading Filter	PM	0.01	0.01	7	7	7
13	Extruder Feed Tank Vent	VOC	0.27	1.18	15	15	15
		PM	0.01	0.04	7	7	7

Permit Number: 40157 and PSDTX1222				Issuance Date: 05/28/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
14	Extruder Building Vacuum Filter	PM	0.01	0.04	7	7	7
16	HEPA Filter Vent Activator	CO	5.80	11.18			
		PM	0.01	0.01	7	7	7
17	Quench Station Vent	PM	0.01	0.01	7	7	7
18	Raw Catalyst Charge Bldg. Filter	PM	0.01	0.01	7	7	7
19	Drum Unloading Enclosure Filter	PM	0.01	0.01	7	7	7
20	Catalyst Fugitives	PM	0.01	0.01	7	7	7
H-601	Catalyst Activator Direct Heater	VOC	0.09	0.30			
		NO_x	0.97	3.32			
		CO	1.09	4.78			
		PM	0.12	0.42			
		SO_2	0.01	0.03	11	11	
IC4LOAD	Isobutane Unloading Line Vent	VOC	0.01	0.04			

Permit Number: 40157 and PSDTX1222					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
1067	Elevated Flare	VOC	4.55	19.91	4, 8, 9, 25	4, 8, 9, 25	4, 9
		NO_x	0.31	1.37	8	8	
		CO	1.59	6.96	8	8	
	Elevated Flare MSS	VOC	699.00	7.17	8, 9, 19, 24, 25	8, 9, 17, 18, 19, 20, 24, 25	9
		NO_x	35.00	0.56	8	8, 17, 18, 24	
		CO	247.00	3.64	8	8, 17, 18, 24	
PP2-CT	Cooling Tower	VOC	1.32	5.79	4, 10	4, 10	4
006MSS	Hydroblasting	VOC	963.90	4.30	19, 24	17, 18, 19, 20, 24	
	Other MSS	VOC	94.00	2.49	19, 24	17, 18, 19, 20, 24	
		PM	0.60	0.03		17	

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The EPNs 004a and 004b, Pellet Blending and Storage, are two identical vent stack systems. Maximum hourly and annual emissions are for both systems combined.

(7) The EPNs 005a, 005b, 005c, and 005d, Pellet Loadout Filter System, are two identical sets of dual vent stacks. Maximum hourly and annual emissions are for both sets combined.

Permit Number: 83763 and PSDTX1230			Issuance Date: 11/30/2012				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
SITE-MNT PAINT	Site-Wide Maintenance - Bulk Painting	VOC	21.12	7.3		2, 5	
		PM	6.09	2.1		2, 5	
		PM_{10}	1.87	0.03		2, 5	
		$PM_{2.5}$	0.19	0.003		2, 5	
		IOC-U	0.10	0.008		2, 5	
SITE-MNT SHOPS	Site-Wide Maintenance - Spot Usage	VOC	34.35	9.5		2	
		PM	0.06	0.004		2	
		PM_{10}	0.06	0.004		2	
		$PM_{2.5}$	0.002	0.0001		2	
		IOC-U	0.10	0.0012		2	
		Exempt Solvents	3.5	1.7		2	
SITE-MNT BLAST	Site-Wide Outdoor Abrasive Blasting	PM	3.43	0.20		2, 6	
		PM_{10}	0.41	0.02		2, 6	
		$PM_{2.5}$	0.06	0.01		2, 6	
SITE-ILE	Site-Wide Inherently Low Emitting Maintenance Activities	VOC	0.21	0.10		2	
EP-4	EDC Unit Degreaser	VOC	0.14	0.60		2, 8	
EP-6	Ethylene Glycol Unit Degreaser	VOC	0.14	0.60		2, 8	
EP-7	Olefins I Solvent Degreaser	VOC	0.14	0.60		2, 8	

Permit Number: 83763 and PSDTX1230 Issuance Date: 11/30/2012							
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EP-9	Olefins II Solvent Degreaser	VOC	0.14	0.60		2, 8	
EP-10	PO II Solvent Degreaser	VOC	0.14	0.60		2, 8	
LL-EP-8	LLDPE/PO I Solvent Degreaser	VOC	0.14	0.60		2, 8	

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
IOC-U - inorganic compounds (unspeciated)
PM - total particulate matter, suspended in the atmosphere, including PM10 and PM2.5, as represented
PM10 - total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented
PM2.5 - particulate matter equal to or less than 2.5 microns in diameter

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Permit Number: 91780 and PSDTX1240					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
1018/1067	Olefins I and II Flares Elevated Flares (6)	CO	14.31	18.03	6, 24	6, 24	
		CO MSS	619.56	10.85	6, 24	6, 16, 17, 23, 24	
		NO_x	2.81	3.54	6, 24	6, 24	
		NO_x MSS	85.79	1.50	6, 24	6, 16, 17, 23, 24	
		VOC	10.39	6.22	6, 15, 24	6, 15, 24	15
		VOC MSS	380.75	16.27	6, 15, 18, 23, 24	6, 15, 16, 17, 19, 23, 24	15
		SO_2	0.02	0.03	6, 24	6, 24	
1018/1067	Olefins I and II Flares Elevated Flares (9)	CO	48.04	2.74	6, 24	6, 7, 24	
		NO_x	6.65	0.38	6, 24	6, 7, 24	
		VOC	68.40	3.87	6, 15, 24	6, 7, 15, 24	15
D-407	Peroxide Drum	VOC	0.01	0.01			
F-400	Vacuum Cleaner Bag Filter	PM	0.03	0.11	4	4	4
F-402	Masterbatch Vent Bag Filter	PM	0.02	0.09	4	4	4
		VOC	0.02	0.06			
F-403	Off Pellet Vent Bag Filter	PM	0.49	1.95	4	4	4
F-987	Railcar Vacuum Cleaning System	PM	0.02	0.07	4	4	4
PP2-CT	Cooling Tower	VOC	1.32	5.77	13	13	13
PP2-FUG	Fugitives, PP-2 Unit (5)	VOC	6.70	29.23	3, 11, 12	3, 11, 12	3, 11

Permit Number: 91780 and PSDTX1240					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
PP2-T1	Downstream Pellet Handling PP-2, Train No. 1 (7)	VOC	6.37	5.60	14	8, 10, 14	
PP2-T2	Downstream Pellet Handling PP-2, Train No. 2 (8)	VOC	6.37	5.60	14	8, 10, 14	
1F-404	Additive Hopper Vent Bag Filters	PM	0.02	0.02	4	4	4
1F-405	Vent Bag Filter, Train No. 1	PM	0.12	0.48	4	4	4
		VOC	0.74	3.23			
1F-406B	Vent Hopper Sock	PM	0.01	0.04	4	4	4
1F-501	Blending Silos Bag Filter, Train No. 1	PM	0.49	1.95	4	4	4
1F-982	Elutriator Bag Filter, Train No. 1	PM	0.98	3.89	4	4	4
1F-985	Railcar Bag Filter Train No. 1	PM	0.49	1.95	4	4	4
1S-404	Dryer Train No. 1	PM	0.51	1.99	4	4	4
1S-405	Classifier	PM	0.04	0.18	4	4	4

Permit Number: 91780 and PSDTX1240					Issuance Date: 05/28/2013		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
2F-405	Vent Bag Filter, Train No. 2	PM	0.12	0.48	4	4	4
		VOC	0.74	3.23			
2F-406B	Vent Hopper Sock	PM	0.01	0.04	4	4	4
2F-501	Blending Silos Bag Filter, Train No. 2	PM	0.49	1.95	4	4	4
2F-982	Elutriator Bag Filter, Train No. 2	PM	0.98	3.89	4	4	4
2F-985	Railcar Bag Filter Train No. 2	PM	0.49	1.95	4	4	4
2S-404	Dryer Train No. 2	PM	0.51	1.99	4	4	4
2S-405	Classifier	PM	0.04	0.18	4	4	4
Maintenance, Startup, and Shutdown (MSS)							
PP2-MAINT	MSS to Atmosphere	VOC	99.12	2.85	18, 23	16, 17, 19, 23	
		PM	3.93	0.23		16, 17	

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
HRVOC	- highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U	- inorganic compounds (unspeciated)
NO_x	- total oxides of nitrogen
SO_2	- sulfur dioxide
PM	- total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10}	- total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
HAP	- hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) PP II vents shall be rerouted to one flare or the other.
(7) Total VOC emissions from the following emissions points F-403, 1F-406B, 1F-501, 1F-982, 1F-985, 1S-404 and 1S-405.
(8) Total VOC emissions from the following emissions points F-403, 2F-406B, 2F-501, 2F-982, 2F-985, 2S-404 and 2S-405.
(9) Emissions associated with product grade transitions.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
PP I Petrochemical Manufacturing
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 20″ Longitude 96° 32′ 50″

Permit: 19200 and PSDTX1237

Revision Date : May 28, 2013

Renewal Date: August 25, 2016

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 19200 and PSDTX1237

Emissions Standards

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 limits on that table and other operating conditions specified in this permit.

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing Volatile Organic Compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table (MAERT). Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions with the exception of those listed below:

   Relief Valves Y3220, Y3221, Y3222, Y3223, Y4220, Y4221, Y4222, Y4223, Y5220, Y5221, Y5222, Y7220, Y7221, and Y7222. **(5/10)**

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency regulations on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction or Modification commenced after July 23, 1984, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, and VOC Emissions From the Polymer Manufacturing Industry in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A, Kb, VV, and DDD.

Operational Specifications

4. The facilities covered by this permit shall not operate unless all associated air pollution abatement equipment is maintained in good working order and operating during normal facility operations. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouses, fabric filters, and cyclones:

   A. Baghouse and fabric filter pressure drops shall be recorded continuously during operation of the facility. All pressure drop records shall be dated for each day the facility is operated, and these records shall be maintained on-site for a rolling 60-month period and made available for inspection by the Executive Director of the TCEQ or a designated representative upon request.

   B. When there are visible emissions from a baghouse, fabric filter, or cyclone, the operation associated with the event shall be shut down as soon as practicable and the entire baghouse, fabric filter system or cyclone shall be tested/inspected, and the failed or damaged parts shall be repaired or replaced.

C. A spare parts inventory with an adequate number of replacement bags for each baghouse and an adequate number of replacement filters for each fabric filter shall be maintained on site at all times. All baghouses, fabric filters, and cyclones shall undergo a preventative maintenance inspection on an annual basis.

D. The TCEQ Regional Director shall be notified as soon as possible of any baghouse, fabric filter, or cyclone system malfunction that results in visible emissions or necessitates repair.

5. Each incinerator shall operate with no less than 99.9 percent efficiency on a 60 minute average in disposing of the carbon compounds captured by the collection system from the Polypropylene I Unit. Each flare shall operate with no less than 98 percent efficiency in disposing of the carbon compounds captured by the collection system from the Polypropylene I Unit. **(5/10)**

6. Flares (EPNs 1018 and 1067) shall be designed and operated in accordance with the following requirements: **(11/12)**

A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. 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.

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. This shall be ensured by the use of steam assist.

D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%.

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install continuous flow monitors satisfying this condition (6D).

E. The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

F. Until such time as the flow monitors and calorimeters are installed to satisfy Condition 6D and 6E, the holder of this permit shall install a continuous flow monitor on the Polypropylene I (PPI) Plant main flare header venting the PPI Plant to the flare that provides a record of the PP I vent stream flow to the flare. The flow monitor sensor shall be installed in the vent stream such that the total vent stream from the PPI plant to the flare is measured. The average hourly values of the PP I flow shall be recorded.

7. Total volatile organic compounds (VOC) emitted to the atmosphere between the extruder and the point of final product loading shall not exceed 133 pounds per million pounds of polymer produced for Lines 300, 400, and 500. Total VOC emitted to the atmosphere between the extruder and the point of final product loading shall not exceed 31.5 pounds per million pounds of polymer produced for Line 700. **(5/10)**

8. Heptane or mineral oil shall be used as the solvent carrier in the PPI process. **(5/10)**

9. PPI total annual production of product is limited to 584,000 tons per 12 consecutive months. Records of production totals shall be maintained on a rolling 12 month basis and be made available to TCEQ personnel upon request. **(5/10)**

Fugitive Emission Monitoring

10. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP **(11/12)**

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

A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68° F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) piping and instrumentation diagram (PID);

(2) a written or electronic database or electronic file;

(3) color coding;

(4) a form of weatherproof identification; or

(5) designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (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. New and reworked buried connectors shall be welded.

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. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be 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 an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an

approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or 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. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking 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, compressor, and agitator 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, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, 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 within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

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 New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

M. With respect to Special Condition 10, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process

unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

11. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 2, damaged or leaking pump, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(11/12)**

12. Cooling Tower Monitoring

Cooling towers shall be subject to the following conditions:

A. The holder of this permit shall execute weekly cooling tower water monitoring using the El Paso Products Company Method of Analysis. This method is described in the TCEQ guidance document entitled "Air Quality Permit Technical Guidance for Chemical Sources - Cooling Towers," dated May, 1997.

B. Instead of the monitoring method required in A of this condition, the holder of this permit may use an air stripping system equivalent to the El Paso Products Company Method of Analysis, provided that he previously obtains written approval from the TCEQ Office of Air, Air Permits Division.

C. The holder of this permit shall perform sampling and other testing as necessary to establish the lbs per hour of VOC being emitted into the atmosphere from the cooling towers associated with this permit. All sampling and testing methods shall be subject to approval of the TCEQ Executive Director prior to their implementation. The VOC concentration (ppmv) in the exhaust from the air stripping testing system or equivalent testing system and the corresponding pounds of strippable VOC/gallon of cooling water shall be reported. These will be used to determine the level (either ppmv or lb/VOC/gal) at which a leak into cooling water will be assumed in the ongoing monitoring program. Within 30 days after completion of sampling, copies of the test report shall be submitted to the TCEQ Office of Air, Air Permits Division and the TCEQ Corpus Christi Regional Office.

D. The VOC associated with cooling tower water shall be monitored weekly with an approved air stripping system or equivalent. The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of the monitoring and maintenance efforts shall be recorded and such records shall be maintained for a period of two years. The records shall be made available to the TCEQ Executive Director or his designated representative upon request.

E. Instead of the weekly monitoring frequency specified in paragraphs A and D of this special condition, the cooling water can be monitored monthly if 12 consecutive months of data are provided to TCEQ showing no leaks into the cooling water as defined in paragraph C of this special condition. If, after the monthly monitoring frequency has been implemented, two leaks in 12 consecutive months are detected as

defined in paragraph C of this special condition, the monitoring frequency will return to a weekly basis until such time that 12 consecutive months of data are provided to again show no leaks.

Ongoing Demonstration of Compliance

13. Ongoing compliance with Special Condition No. 7 and with the MAERT shall be determined for each line by calculation using weekly production rates and weekly sampling and testing of the polymer immediately downstream of the extruder (A) and immediately before the point of final product loading (B). The beverage can test or an equivalent method approved by the TCEQ Austin Compliance Support Division shall be used to determine VOC.

    Polymer production rates and product degassing monitoring records shall be maintained at the plant site for at least five years from the date they are made and made available upon request to TCEQ personnel. These records shall include (but are not limited to):

    A. Date and time of sampling.

    B. Actual plant production rate at the time of sampling and the weekly average production rate.

    C. Product number and melt index.

    D. Measured pounds of total VOC per million lbs of polymer after the extruder (A) and immediately prior to final product loading (B).

    E. Total VOC emitted to the atmosphere between points A and B during the operating week shall be calculated by (A B) multiplied by the weekly production rate. Calculations shall take into account emissions which are collected and routed to a control device and any changes in product type during the week.

Maintenance, Startup, and Shutdown (MSS)

14. This permit authorizes air emissions from the planned MSS activities identified in the following table performed at the facilities authorized by this permit. **(11/12)**

Facilities	**Description/ Emissions Activity**	**EPN**
All facilities*	Depressurize and purge to control per Special Condition 15	1018, 1067, PP1-TEMP
All facilities*	Degas facilities to atmosphere after flare per Special Condition 15	PP1-MAINT

Facilities	Description/ Emissions Activity	EPN
All facilities*	Fill and/or vent to control during startup	1018, 1067, PP1-TEMP
Vessels (MTR)	Vent to flare during MTR system maintenance	1018, 1067
Carrier Gas System	Vent waste gas to flare during carrier gas system maintenance	1018, 1067
All	Attachment A activities	1018,1067, PP1-TEMP, PP1-MAINT
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	PP1-MAINT

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and control devices meeting the requirements of Special Condition 21. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility

Emissions from activities listed on Attachment A may be considered to be equal to the potential to emit represented in the permit amendment application, PI-1 dated January 3, 2008, and updated in subsequent application submittals. The estimated emissions from these activities must be revalidated annually. This revalidation shall consist of verifying the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

A. The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

B. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

C. The type of planned MSS activity and the reason for the planned activity;

D. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

E. The date and time of the MSS activity and its duration;

F. The estimated quantity of each air contaminant or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

15. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements. **(11/12)**

A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.

B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

E. After degassing in accordance with Special Condition 15.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10

percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.

(1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of ii below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 15. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except as noted in Attachment A, all instances of venting directly to atmosphere per Special Condition 15.F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities.

16. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods: **(11/12)**

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

(2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration

Where the release concentration is:

10,000*mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

(1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.

D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

(1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.

(2) The sample bag shall be connected directly to the sample valve.

(3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.

(4) The two valves shall then be closed to seal the sample in the bag.

(5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.

(6) This process is repeated to collect additional samples.

(7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

17. The following requirements apply to capture systems for each flare designated as EPNs 1018 and 1067. **(02/11)**

A. If used to control pollutants other than particulate, either:

(1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

(2) Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device shall not have a bypass.

or

If there is a bypass for the control device, comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

18. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site: **(11/12)**

A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

B. Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

(1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

(2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

(3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 16.

(4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.

19. Vents must be directed to a flare operating in accordance with Special Condition 21 during maintenance on the membrane transfer reactor (MTR) or carrier gas systems. **(11/12)**

20. Bag filter maintenance shall be performed in a manner to minimize particulate matter emissions and minimize down time. **(11/12)**

21. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**

22. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified and authorized in this condition. The use of any other types of devices to control emissions from MSS activities must be authorized in accordance with 30 TAC Chapter 116.

    Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

    Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

    A. Carbon Adsorption System (CAS).

        (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

        (2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

            (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

            (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the

VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 16.A or B.

(4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer. (EPNs OL1-TEMP or OL2-TEMP)

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. Internal Combustion Engine. (EPNs OL1-TEMP or OL2-TEMP)

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 16 are also acceptable for this documentation

(3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.

D. The plant flare systems (EPN 1018, EPN 1067).

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 16.A or B.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

23. The capture systems for the flares shall not have a bypass unless: **(11/12)**

A. A flow indicator that records and verifies zero flow at least once every fifteen minutes is installed immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

B. Inspect the valves that prevent flow out the bypass once a month, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above. **(11/12)**

24. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013

Permit 19200 and PSDTX1237

Attachment A

Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NOx	CO	PM
Vent loading arms*	X			
Liquid tanks	X	X	X	
Repair/replace filters/strainers	X	X	X	X
Repair/replace baghouses/bag filters	X	X	X	X
Catalyst charging*	X		X	
Instrument/analyzer calibration/repair, transmitter repair	X	X	X	X
Blower, pump, and valve maintenance	X	X	X	
Activities documented as having emissions <0.1 lb*	X			
Site glass cleaning*	X			
Additive filters*				X
Drain and degas liquid tanks	X	X	X	
Oil drums* and grease pots	X	X	X	

* - These activities are not subject to the requirements of Special Condition 14.

Dated: November 30, 2012

Permit 19200 and PSDTX1237

Attachment B

Routine Maintenance Activities

Heat exchanger, relief valve, and column repair and maintenance

Piping and piping component degassing

Compressor and cyclone MSS

Loading

Repair/replacement that may be isolated so that the process volume to be emptied and degassed is less than 200 cubic feet.

Dated: November 30, 2012

Permit 19200 and PSDTX1237

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 14.

Pressure tank repair and maintenance

Plant turnaround and reactor startup and shutdown

Maintenance on the MTR or carrier gas systems during plant operation

Reactor repair and maintenance

Activities not listed on Attachment A or B or not otherwise authorized

Date: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19200 and PSDTX1237

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1018/1067	Olefins I and II Flares (6)	CO	14.31	44.65
		CO MSS	513.53	26.27
		NO_x	2.81	8.76
		NO_x MSS	71.24	3.55
		SO_2	0.02	0.07
		VOC	10.39	15.40
		VOC MSS	949.97	39.05
B-231	Co-Catalyst Area Dip Pot	VOC	0.03	0.01
B-242	Co-Catalyst Area Dip Pot	VOC	0.03	0.01
B-292A	Peroxide Dip Pot	VOC	0.05	0.01
B-292B	Peroxide Dip Pot	VOC	0.05	0.01
B-360	Pellet Buffer Vessel	PM	0.01	0.06
B-406	Catalyst Slurry Prep System Dip Pot	VOC	0.05	0.01
B-460	Pellet Buffer Vessel	PM	0.01	0.06
B-560	Pellet Buffer Vessel	PM	0.01	0.06
B-760	Pellet Buffer Vessel	PM	0.01	0.06
F-343	Powder Vent Gas Filter	PM	0.04	0.07
		VOC	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-346	Additive Feed Conveying Gas Filter	PM	0.02	0.01
		VOC	0.01	0.01
F-367	Pellet Water Preseparator Sieve	PM	0.03	0.14
F-368	Classifier	PM	0.03	0.14
F-387	Silo Air Filters Train No. 1	PM	0.57	2.40
F-387A	Silos Cyclone Separator, Train No. 1	PM	0.47	1.26
F-443	Powder Vent Gas Filter	PM	0.04	0.07
		VOC	0.01	0.01
F-446	Additive Feed Conveying Gas Filter	PM	0.02	0.01
		VOC	0.01	0.01
F-467	Pellet Water Preseparator Sieve	PM	0.03	0.14
F-468	Classifier	PM	0.03	0.14
F-487	Silo Air Filters Train No. 2	PM	0.57	2.40
F-487A	Silos Cyclone Separator, Train No. 2	PM	0.47	1.26
F-541	500 Line-Off Spec Silo Bag Filter	PM	0.20	0.85
F-543	Powder Vent Gas Filter	PM	0.04	0.07
		VOC	0.01	0.01
F-546	Additive Feed Conveying Gas Filter	PM	0.02	0.01
		VOC	0.01	0.01
F-567	Pellet Water Preseparator Sieve	PM	0.03	0.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-568	Classifier	PM	0.03	0.14
F-575	300/400 Line - Off Spec Silo Bag Filter	PM	0.58	2.25
F-587	Silo Air Filters Train No. 3	PM	0.57	2.40
F-587A	Silos Cyclone Separator, Train No. 3	PM	0.47	1.26
F-705	Auto Packer Cyclone	PM	0.14	0.59
F-706A	Truck Silo Cyclone	PM	0.14	0.59
F-706B	Auto Packer Cyclone	PM	0.14	0.59
F-711A	Hopper Silo Cyclone Train No. 1	PM	0.14	0.59
F-711B	Hopper Silo Cyclone Train No. 2	PM	0.14	0.59
F-711G	Streamer Remover Bag Filter, Train No. 4	PM	0.40	1.59
F-741	700 Line Off Spec Silo Bag Filter	PM	0.12	0.47
F-743	Additive Vent Gas Filter	PM	0.01	0.01
F-743A	Powder Vent Bag Filter	PM	0.01	0.01
		VOC	0.01	0.01
F-746	Additive Feed Conveying Gas Filter	PM	0.02	0.01
		VOC	0.01	0.01
F-747A	Bag Dumping Unit	PM	0.01	0.01
F-747B	Bag Dumping Unit	PM	0.01	0.01
F-747C	Bag Dumping Unit	PM	0.01	0.01
F-767	Pellet Water Preseparator Sieve	PM	0.03	0.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-768	Classifier	PM	0.03	0.14
F-781A	Product Silo Cyclone Train No. 1	PM	0.38	1.65
F-781B	Product Silo Cyclone Train No. 2	PM	0.38	1.65
F-781C	Product Silo Cyclone Train No. 3	PM	0.38	1.65
F-787	Silo Air Filters Train No. 4	PM	0.48	1.87
F-787A	Silos Cyclone Separator, Train No. 4	PM	0.47	1.26
F-975	C Train Loading Station Cyclone Separator	PM	0.30	0.61
F-981	Product Silo Air Cyclone Train No. 4	PM	1.01	3.98
H-371	Pellet Metering Rotary Feeder	PM	0.01	0.01
H-471	Pellet Metering Rotary Feeder	PM	0.01	0.01
H-571	Pellet Metering Rotary Feeder	PM	0.01	0.01
H-769	Pellet Rotafeeder	PM	0.01	0.01
H-773	Pellet Rotafeeder	PM	0.01	0.01
PO-CT	Cooling Tower	VOC	0.88	3.86
PP1-300	Downstream Pellet Handling PP-1, Train No. 1 (7)	VOC	2.75	3.03
PP1-400	Downstream Pellet Handling PP-1, Train No. 2 (8)	VOC	2.88	3.14
PP1-500	Downstream Pellet Handling PP-1, Train No. 3 (9)	VOC	2.39	3.16

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PP1-700	Downstream Pellet Handling PP-1, Train No. 4 (10)	VOC	1.06	2.96
PP1-CT	Cooling Tower	VOC	0.44	1.93
PP1-FUG	Fugitives PP-1 Unit (5)	PM	0.05	0.27
		VOC	3.72	16.28
T-367	Dryer Train No. 1	PM	0.34	1.25
T-467	Dryer Train No. 2	PM	0.41	1.76
T-567	Dryer Train No. 3	PM	0.34	1.25
T-767	Dryer Train No. 4	PM	0.41	1.76
Maintenance, Startup, and Shutdown (MSS)				
PPI-MAINT	MSS to Atmosphere	VOC	102.27	1.81
		PM	3.19	0.42

Emission Sources - Maximum Allowable Emission Rates

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) PP I vents shall all be routed to one flare or the other.
(7) Total VOC emissions from the following emissions points:
B-360, F-367, F-368, F-387, F-387A, F-575, F-705, F-706A, F-706B, F-781A, F-711A, F-711G, F-711B, F-975, and T-367.
(8) Total VOC emissions from the following emissions points:
B-460, F-467, F-468, F-487, F-487A, F-575, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-781B, F-975, and T-467.
(9) Total VOC emissions from the following emissions points:
B-560, F-541, F-567, F-568, F-587A, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-587, F-781C, F-975, and T-567.
(10) Total VOC emissions from the following emissions points:
B-760, F-705, F-706A, F-706B, F-711A, F-711B, F-711G, F-741, F-767, F-768, F-787, F-787A, F-975, F-981, and T-767.

Date: November 30, 2012

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
High Density Polyethylene I Plant
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 20″ Longitude 96° 32′ 50″

Permit: 19201 and PSDTX1232

Revision Date : May 28, 2013

Renewal Date: January 12, 2017

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 19201 and PSDTX1232

Emissions Standards

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 limits on that table and other operating conditions specified in this permit.

2. Total volatile organic compounds (VOC) content of the polymer after the Dryers (D-301, 2D-301 and 3D-301) shall not exceed 90 pounds (lbs) of VOC per million (MM)/lbs of polymer on a maximum hourly basis. Total VOC emitted to the atmosphere downstream from the dryers shall not exceed 75 lbs of VOC per MM/lbs of product on an annual average basis.

Federal Applicability

3. 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 promulgated for the following:

   A. Volatile Organic Liquid Storage Vessels in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A and Kb.

   B. Polypropylene, Polyethylene, Polystyrene and Poly (Ethylene Terephthalate) Production in 40 CFR Part 60, Subparts A and DDD.

   C. This facility shall comply with all applicable requirements of contained in the EPA regulations in 40 CFR Part 63, Subparts A and FFFF for Miscellaneous Organic Chemical Manufacturing.

Operational Standards

4. Propylene and butene may not be jointly used as process copolymers. The copolymer usage shall be recorded daily during operation of this facility. All records of copolymer usage shall be dated for each day this facility is operated and this record shall be made readily available to the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or his designated representative upon request.

5. Except as allowed by Special Condition 20, Dryer Vents (D-301, 2D-301, and 3D-301) shall be routed to a thermal incinerator designated as Emission Point Numbers (EPNs) H923A or H923B. Otherwise, Dryer Vents (D-301, 2D-301, and 3D-301) shall only be vented directly to the atmosphere when the VOC concentration of the vent streams reaches 25 percent of the lower explosive level. **(11/12)**

6. The following steps shall be performed, at a minimum, to ensure the proper operation of each baghouse:

A. The baghouse pressure drop shall be recorded continuously for each baghouse during operation of this facility. All records of baghouse pressure drop shall be dated for each day this facility is operated and this record shall be made readily available to the Executive Director of the TCEQ or his designated representative upon request.

B. When there are visible stack emissions from a baghouse, the process shall be shut down, and the entire baghouse shall be tested/inspected and failed or damaged parts shall be repaired or replaced.

C. A spare parts inventory for each baghouse shall be maintained at the site of this facility.

D. The TCEQ Regional Director shall be notified as soon as possible of any baghouse system malfunction that results in visible emissions.

7. Flares (EPN 1018 and 1067) shall be designed and operated in accordance with the following requirements:

A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. 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.

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. This shall be ensured by the use of steam assist.

D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%.

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install continuous flow monitors satisfying this condition (7D).

E. The permit holder shall have 36 months from the date of the Olefins I&II MSS permit amendment issuance to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

F. Until such times as the flow monitors and calorimeters are installed to satisfy Condition 7D and 7E, the holder of this permit shall install a continuous flow monitor on the HDPE I Plant main flare header venting the HDPE I Plant to the flare that provides a record of the vent stream flow to the flare. The flow monitor sensor shall be installed in the vent stream such that the total vent stream from the HDPE I plant to the flare is measured. The flow monitor values shall be recorded and accumulated daily. **(11/12)**

Fugitive Emission Monitoring

8. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP **(11/12)**

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

A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68EF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) piping and instrumentation diagram (PID);

(2) a written or electronic database or electronic file;

(3) color coding;

(4) a form of weatherproof identification; or

(5) designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (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. New and reworked buried connectors shall be welded.

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. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be 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 an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or 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. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking 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, compressor, and agitator 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, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, 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 within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list

shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

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 New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

M. With respect to Special Condition 8, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

9. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 8, damaged or leaking pump, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**

10. Cooling Towers

A. The holder of this permit shall do monthly cooling tower water monitoring using the El Paso Products Company method of analysis. This method is described in the TCEQ guidance document entitled "Air Quality Permit Technical Guidance for Chemical Sources - Cooling Towers," dated May 1997.

The holder of this permit may use an air stripping system equivalent to the El Paso Products Company method of analysis instead of the system in the first paragraph, provided that the permit holder previously obtains written approval from the TCEQ Office of Air, Air Permits Division.

B. The holder of this permit shall perform sampling and other testing as necessary to establish the pounds per hour of VOC being emitted into the atmosphere from each cooling tower associated with this permit. All sampling and testing methods shall be subject to approval of the TCEQ Executive Director prior to their implementation. The VOC concentration (ppmv) in the exhaust from the air stripping testing system or equivalent testing system and the corresponding pounds of strippable VOC/gallon (gal) of cooling water shall be reported. These will be used to determine the level (either ppmv or lb/VOC/gal) at which a leak into cooling water will be assumed in the ongoing monitoring program. Within 30 days after completion of sampling, copies of the test report shall be submitted to the TCEQ Corpus Christi Regional Office.

11. Storage and Loading of VOC — 31M

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.5 psia at the maximum expected operating temperature or (2) to storage tanks smaller than 25,000 gallons.

B. An internal floating roof or equivalent control shall be installed on all tanks.

C. An open-top tank containing a floating roof which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof 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 integrity of the floating roof seals shall be verified annually and records maintained to describe dates, seal integrity, and corrective actions taken. Seal integrity shall be verified using the procedures in 40 CFR § 60.113b, Testing and Procedures. Records shall be maintained using the procedures in 40 CFR § 60.115b, Reporting and Recordkeeping Requirements.

E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650, Appendix C, or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements.

F. Uninsulated tank exterior surfaces exposed to the sun shall be white.

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, 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 previous 12 months in gallons, and total tons of emissions including controls for the previous month and previous 12 months. This record shall be maintained at the plant site for at least two years and be made available to representatives of the TCEQ upon request.

H. If throughput records are specified in the special conditions of this permit, the holder of this permit may keep such records in lieu of the records required in paragraph G.

I. Emissions for tanks and loading operations shall be calculated using the edition of the following publications in effect at the time of the latest approved permit amendment: (a) AP-42 "Compilation of Air Pollution Emission Factors, Chapter 12 - Storage of Organic Liquids" and (b) the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

J. 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 shall be reported pursuant to 30 TAC §§ 101.6 or 101.7 and shall be cleaned up as soon as practicable to minimize air emissions.

Compliance

12. Ongoing compliance with the emission limits for the dryers and downstream handling shall be determined for each line by calculation using weekly production rates and weekly sampling and testing of the polymer immediately downstream of each dryer (D) and at final product loading (P). Polymer production rates and monitoring records to be maintained at the plant site for two years and made readily available upon request shall include (but are not limited to):

A. Date and time of sample;

B. Actual plant production rate at the time of sample and weekly average production rate;

C. Product number and melt index;

D. Measured pounds of VOC per million pounds of polymer after the dryer and final product are shipped; and

E. Downstream handling emissions shall be calculated by (D-P) x (weekly production). Calculations shall take into account any changes in product type during the week.

Sampling shall begin no later than 60 days after initial start-up of this facility. Sampling and testing shall be performed with methods approved by the TCEQ Regional Office.

13. The holder of this permit shall submit to the TCEQ Corpus Christi Regional Office at their request documentation which demonstrates the permit holder is achieving compliance with all the conditions of the permit. This documentation shall consist of a statement explaining how each requirement in a condition is being met. It will include a sample of each record sheet required to be maintained by any condition and a listing of all testing required with test dates.

Incinerator Conditions

14. Incinerators (EPNs H923A and H923B) shall be used to burn waste gases originating from this permitted facility. Each incinerator firebox temperature shall be continuously monitored and recorded when each one is in operation. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. These records shall be recorded and updated monthly with records kept at the plant site.

    The temperature measurement device shall be installed, calibrated, maintained and operated according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

    Quality assured (or valid) data must be generated when each EPN is operating except during the performance of a daily zero and span check Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the EPN operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

    Each incinerator shall operate with no less than 99.9 percent control in disposing of the VOC captured by the collection system and sent to each incinerator. **(3/10)**

15. Each incinerator firebox temperature shall be maintained at not less than 1500EF while waste gas is being fed to each incinerator, except during planned periods of incinerator startup and shutdown and transition between incinerators, not to exceed three hours. Start of incinerator transition begins when valves are opened to begin diverting vent gas flow from one incinerator to the other incinerator and ends when the full waste gas flow is diverted. The temperature shall be maintained at least above that maintained during the last satisfactory stack test completed on each incinerator. **(11/12)**

16. The H923A and H923B Incinerators shall each operate at not less than 7.0 percent O_2 and each not more than 45 ppmvd CO, corrected to 0 percent excess air in each incinerator

stack while waste gas is being fed to each incinerator, except during planned periods of incinerator startup and shutdown and transition between incinerators, not to exceed three hours. **(11/12)**

17. 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 Thermal Incinerators identified as EPNs H923A and H923B.

The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. The testing for Incinerators H923A and H923B was completed on April 20, 2005 and April 25, 2005 respectively and the test report was submitted to TCEQ Region 14.

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 TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director or the TCEQ Compliance Support Division shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals that must have EPA and TCEQ approval shall be submitted to the TCEQ Compliance Support Division.

B. Air contaminants emitted from the incinerators to be tested for include (but are not limited to) VOC, nitrogen oxides (NO_x), and CO. Sampling shall be performed using EPA Reference Methods 1 through 4 and 18 or 25A for VOC, Reference Method 7 or 7E for NO_x, and Reference Method 10 for CO.

C. Sampling shall 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 Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires EPA

approval, and requests shall be submitted to the TCEQ Austin Compliance Support Division.

D. The plant shall operate at maximum production 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 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. 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 EPA, Region 6, Dallas Office.

18. The holder of this permit shall install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of CO and O_2 from each incinerator designated as EPNs H 923A and H-923B. **(4/07)**

A. Each 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 Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (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 Air, Air Permits Division for requirements to be met.

B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:

(1) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

(2) 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.

Each monitor 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 CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

C. 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 pounds per hour at least once every week as follows:

The measured hourly average concentration from the CEMS shall be multiplied by the flow rate measured during the latest stack test performed in accordance with Special Condition No. 16 to determine the hourly emission rate.

D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.

F. Quality-assured (or valid) data must be generated when the high density polyethylene unit is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the high density polyethylene unit operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

19. The following requirements apply to capture systems for flares designated as EPNs 1018 and 1067, incinerators designated as EPNs H923A and H923B.

A. If used to control pollutants other than particulate, either:

(1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

(2) Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device shall not have a bypass.

or

If there is a bypass for the control device, comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action.

Maintenance, Startup, and Shutdown (MSS)

20. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	**Description/ Emissions Activity**	**EPN**
All facilities*	Depressurize, purge, or steam to flare or incinerators, with or without hexane purge, per Special Condition 21	1018 1067 H923A H923B
All facilities*	Degas facilities to atmosphere, after degassing to flare or incinerators, with or without hexane purge, per Special Condition 21	PE-MSS
All facilities*	Fill and/or vent to flare or incinerator during startup	1018 1067 H923A H923B
Reactor startup	Reactor purge during startup	1018

Facilities	Description/ Emissions Activity	EPN
		1067 H923A H923B
See Attachment A	Attachment A activities	1018 1067 H923A H923B PE-MSS
Incinerators	Route emissions to flare during planned MSS	1018 1067
Incinerators	Dryer emissions directed to atmosphere during incinerator planned MSS, including incinerator transitions and low-fire operation	D301 2D-301 3D-301
Incinerators	Curing repaired or replaced refractory	H923A H923B
Incinerators	Startup	H923A H923B
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	PE-MSS

* - all facilities includes piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and associated control devices. Emissions from temporary facilities are authorized

provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility.

Emissions from activities listed on Attachment A may be considered to be equal to the potential to emit represented in the permit amendment application, PI-1 dated January 3, 2008, and updated in subsequent application submittals. The estimated emissions from these activities must be revalidated annually. This revalidation shall consist verifying the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

B. the type of planned MSS activity and the reason for the planned activity;

C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

D. the date and time of the MSS activity and its duration;

E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

21. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements.

A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.

B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process

temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

E. After degassing in accordance with Special Condition 21.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.

(1) For MSS activities identified in Attachments A and B, the following option may be used in lieu of ii below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 20. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except for Attachment A activities, all instances of venting directly to atmosphere per Special Condition 21.F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities. **(11/12)**

22. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

B. The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

(1) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

C. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured must be less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured must be at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

(a) measured contaminant concentration (ppmv) must be less than the release concentration.

Where the release concentration is:

10,000*the mole fraction of the total air contaminants present in the gas stream that can be detected by the tube.

The mole fraction of the air contaminants present that can be detected by the tube may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

D. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

(1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.

E. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

(1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.

(2) The sample bag shall be connected directly to the sample valve.

(3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.

(4) The two valves shall then be closed to seal the sample in the bag.

(5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.

(6) This process is repeated to collect additional samples.

(7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed

in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting. **(11/12)**

23. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

    A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

    B. Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

    C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

        (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

        (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

        (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 22.A or B.

        (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

    D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis. **(11/12)**

24. Bag filter maintenance shall be performed in a manner to minimize particulate matter emissions and minimize down time. **(11/12)**

25. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**

26. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

    Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

    A. Carbon Adsorption System (CAS):

        (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

        (2) The CAS shall be sampled down stream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

            (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

            (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

        (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 21.A or B.

        (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 22.A or B are also acceptable for this documentation.

(3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.

D. The plant flare system (EPNs 1018 and 1067).

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 22.A or B.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. **(11/12)**

27. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013

Permit 19201 and PSDTX1232

Attachment A

Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NOx	CO	PM
Repair/replace baghouses/bag filters	X			X
Repair/replace filters and strainers	X	X	X	
Attachment B activities with emission rates less than 0.1 pound VOC, per activity	X	X	X	X
Other Attachment A activities with emission rates less than 0.1 pound VOC	X	X	X	X

Dated: November 30, 2012

Permit 19201 and PSDTX1232

Attachment B

Routine Maintenance Activities

Cyclone/Elutriator and scrubbers repair/replacement

Vessel, compressor, pump repair/replacement

Pressure storage vessel and floating roof tank repair/replacement

Column, reactor, and heat exchanger repair/replacement

Drum opening

Piping degassing

Dated: November 30, 2012

Permit 19201 and PSDTX1232

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 20.

Dryer venting to atmosphere

Directing waste gas to flare rather than incinerator

Startup/shutdown and turnaround

Incinerator curing

Activities not listed on Attachments A and B or not otherwise authorized

Date: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 19201 and PSDTX1232

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
2-HDPE	Downstream Pellet Handling	VOC	4.96	21.73
3-HDPE	Downstream Pellet Handling	VOC	3.41	13.61
3T501	3T-501 Hexane Tank	VOC	0.29	0.72
3T502	3T-502 Hexane Tank	VOC	0.35	0.72
3T503	3T-503 Hexane Tank	VOC	0.35	0.72
5T6010	Tank T-501	VOC	0.56	0.53
5T6020	Tank T-502	VOC	0.56	0.53
5T6030	Tank 2T-502	VOC	0.56	0.53
5T6040	Tank T-503	VOC	0.56	0.53
5T6050	Tank 2T-503	VOC	0.56	0.53
D301	HDPE Train A Dryer Vent (11)	VOC	44.00	11.80
2D-301	HDPE Train B Dryer Vent (11)	VOC	44.00	11.80
3D-301	HDPE Train C Dryer Vent (11)	VOC	44.00	11.80
F-302	Powder Silo Bag Filter	PM_{10}	0.10	0.42
2F-302	Powder Silo Bag Filter	PM_{10}	0.10	0.42
3F-302	Powder Silo Bag Filter	PM_{10}	0.16	0.62
F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
2F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01
3F401	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01
F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01
2F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01
3F408	Powder Feed Hopper Bag Filter	PM_{10}	0.01	0.01
3F708A	Elutriate Bag Filter (8)	PM_{10}	1.34	4.35
F-701	Blend Silo Bag Filter	PM_{10}	0.09	0.37
2F-701	Blend Silo Bag Filter	PM_{10}	0.09	0.37
3F-701A	Blending Silo Bag Filter	PM_{10}	0.35	1.55
3F-701B	Blending Silo Bag Filter	PM_{10}	0.35	1.55
F-708A	Hopper Car Bag Filter F-708A	PM_{10}	0.05	0.21
F-708B	Hopper Car Bag Filter F-708B	PM_{10}	0.05	0.21
S-705	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28
2S-705	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28
S-707	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28
2S-707	Packer Silo Cyclone Separator	PM_{10}	0.06	0.28
S-708A	Hopper Silo Cyclone Separator	PM_{10}	0.06	0.28
S-708B	Hopper Silo Cyclone Separator	PM_{10}	0.06	0.28
S-709A	Product Silos Cyclone Separator	PM_{10}	0.06	0.28

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
	S-709A			
S-709B	Product Silos Cyclone Separator S-709B	PM_{10}	0.06	0.28
S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10
2S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10
3S405	Recycle Pellet Cyclone (9)	PM_{10}	0.27	0.10
V102	Catalyst Dip Pot (10)	VOC	0.53	0.03
Z405	Additive Dust Collector	PM_{10}	0.02	0.08
2Z405	Additive Dust Collector	PM_{10}	0.02	0.08
Z410	Powder Vacuum Cleaner (9)	PM_{10}	0.01	0.01
PO-CT	Cooling Tower	VOC	1.32	5.79
PP2-CT	Cooling Tower	VOC	1.32	5.79
H923A	Thermal Incinerator (6)	CO	15.42	-
		CO MSS	75.00	18.70
		NO_x MSS	-	1.00
		NO_x	8.64	-
		PM_{10}	0.76	-
		SO_2	0.05	-
		SO_2 MSS (12)	0.10	0.10
		VOC	1.88	-
		VOC MSS (12)	-	0.20

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H923B	Thermal Incinerator (6)	CO	15.42	-
		CO MSS	75.00	18.70
		NO_x	8.64	-
		NO_x MSS	-	1.00
		PM_{10}	0.76	-
		SO_2	0.05	-
		SO_2 MSS (12)	0.10	0.10
		VOC	1.88	-
		VOC MSS (12)	-	0.20
H923A/H923B	Thermal Incinerators (Combined Annual Emissions from Incinerators H923A and H923B)	CO	-	55.74
		NO_x	-	31.23
		PM_{10}	-	2.75
		SO_2	-	0.17
		VOC	-	6.80
2F-302B	Powder Silo Bag Filter	PM_{10}	0.10	0.44
3F-302B	Powder Silo Bag Filter	PM_{10}	0.16	0.21
3F-708B	Railcar Bag Filter (8)	PM_{10}	0.52	1.60
3V305	Seal Dip Pot (10)	VOC	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1018	Olefins I Elevated Flare (7)	CO	10.70	-
		CO MSS	65.30	9.90
		NO_x	2.10	-
		NO_x MSS	9.00	1.50
		SO_2	0.01	-
		VOC	13.12	-
		VOC MSS	243.20	16.70
1067	Olefins II Elevated Flare (7)	CO	10.70	-
		CO MSS	65.30	9.90
		NO_x	2.10	-
		NO_x MSS	9.00	1.50
		SO_2	0.01	-
		VOC	13.12	-
		VOC MSS	243.20	16.70
Annual Emission Cap (7)		CO	-	14.06
		NO_x	-	2.76
		SO_2	-	0.01
		VOC	-	34.48
PE-FUG	Plant Process Fugitives (5)	PM_{10}	0.06	0.27
		VOC	25.31	110.87

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Maintenance, Startup, And Shutdown (MSS)				
D301 2D-301 3D-301	Dryer Vent MSS Activities	VOC	132.00	37.50
PE-MSS	MSS to Atmosphere	VOC	80.60	2.50
		PM	0.20	0.30

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) The emissions from the incinerator stacks are the total emissions related to disposal of waste gases from the high density polyethylene, linear low density polyethylene and polypropylene plants.
(7) The emissions contributed only from this permitted facility which is the HDPE I unit. The vents from the HDPE I unit to the Olefins I Elevated Flare (EPN 1018) and the Olefins II Elevated Flare (EPN 1067) are limited to the following scenarios:
A. All vents from the HDPE I unit can vent to EPN 1018 with no vents from the HDPE I unit venting at the same time to EPN 1067 for 5,256 hours per year.
B. All vents from the HDPE I unit can vent to EPN 1067 with no vents from the HDPE I unit venting at the same time to EPN 1018 for 5,256 hours per year.
(8) 7,500 hours per year of operation
(9) 730 hours per year of operation
(10) 100 hours per year of operation
(11) The combined total annual emissions from EPNs D301, 2D-301, and 3D-301 shall not exceed 11.8 tons per year.
(12) Total VOC emissions from EPNs 1018, 1067, H923A, and H923B shall not exceed 66 lb/hr during planned MSS events. Total SO_2 emissions from EPNs H923A and H923B shall not exceed 0.1 lb.hr during planned MSS events.

Date: November 30, 2012

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
Linear Low Density Polyethylene Plant
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 20″ Longitude –96° 32′ 50″

Permits: 20203 and PSDTX1224

Amendment Date : November 21, 2014

Expiration Date: September 29, 2024

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 20203 and PSDTX1224

Emissions Standards

1. This permit authorizes LLDPE production operations for a facility located at 201 Formosa Drive, Point Comfort, Calhoun County, Texas.

   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 limits on that table and other operating conditions specified in this permit.

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) 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 VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

3. Production of polyethylene at this facility is limited to 1,000 million pounds per year calculated on a rolling 12 month basis. The holder of this permit shall keep records of monthly and cumulative annual production rates on a rolling 12 month basis. The records shall be maintained for a rolling two year period and be made available to representatives of the TCEQ upon request. **(11/14)**

Federal Applicability

4. Modifications evaluated under the actuals-to-projected actuals (ATPA) applicability test. **(11/14)**

   A. The permit holder shall comply with the monitoring, recordkeeping and reporting requirements of 30 TAC §116.127 with respect to the facilities identified in the following paragraphs.

   B. The modification authorized by permit amendment (application received October 2, 2014), which included an increase in maximum permitted LLDPE production.

   The projected actual emissions for facilities where the ATPA applicability test has been employed are as follows:

FIN	EPN	Facility Name	Projected actual emission rate (tons per year [tpy])
S1-446	LL-001	Final Degasser	17.80 tpy VOC
F1-840	LL-003	Pelletizer #1	0.95 tpy VOC
F2-840	LL-004	Pelletizer #2	0.93 tpy VOC
S2-898	LL-017	Truck Silo #1	0.012 tpy $PM_{2.5}$

Total actual emissions from the referenced facilities shall be monitored and recorded in accordance with Title 30 of the Texas Administrative Code (30 TAC) §116.127(b).

If any projected actual emission rate is exceeded during any rolling 12-month period during the 60 months following the completion of the above referenced modification, and if total emissions from the referenced facilities exceed 30.75 tpy VOC or 0.40 tpy $PM_{2.5}$, the permit holder shall submit a report to the Division Director, TCEQ Air Permits Division, in accordance with 30 TAC §116.127(d).

5. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):

   A. Subpart A, General Provisions.

   B. Subpart Kb, Volatile Organic Liquid Storage Vessels.

   C. Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modificaiton Commenced after January 5, 1981, and on or before November 7, 2006.

   D. Subpart DDD, VOC Emissions from the Polymer Manufacturing Industry.

6. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:

   A. Subpart A, General Provisions.

   B. Subpart FFFF, Miscellaneous Organic Chemical Manufacturing.

7. If any condition of this permit is more stringent than the applicable regulations in Special Condition Nos. 5 and 6, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

Operational Standards

8. Particulate matter grain loading shall not exceed 0.01 grain per dry standard cubic foot of air from any baghouse or cyclone authorized under this permit. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. Environmental Protection Agency (EPA) Test Method 22.

   The vents covered by this permit shall not operate unless control devices and associated equipment are maintained in good working order and operating. Records shall be maintained of all inspections and maintenance performed.

The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouses and cyclones:

A. The differential pressure across each baghouse shall be continuously monitored and be recorded at least daily. Differential pressures shall be maintained within manufacturer's specifications for each baghouse and each cyclone. Manufacturer's specifications for the minimum and maximum differential pressures for each baghouse and each cyclone shall be conspicuously displayed near such baghouse or cyclone.

   Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications. Each monitoring device shall be inspected annually to verify good working order. All records of baghouse and cyclone pressure drop shall be dated for each day the baghouse or cyclone is operated, and the records shall be maintained on-site for a rolling 12-month period and made available for inspection to the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or a designated representative upon request.

B. When there are visible emissions from a baghouse or cyclone, the operation associated with the event shall be shut down as soon as practicable, the entire baghouse or cyclone shall be inspected, and the failed or damaged parts shall be repaired or replaced.

C. A spare parts inventory with an adequate number of replacement bags for each baghouse and each cyclone shall be maintained on-site at all times. All baghouses and cyclones shall undergo a preventative maintenance inspection on an annual basis.

D. The TCEQ Regional Director shall be notified as soon as possible of any baghouse or cyclone system malfunction that results in visible emissions.

9. Flares (EPNs 1018 and 1067) shall be designed and operated in accordance with the following requirements:

A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

   The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. 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.

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. This shall be ensured by the use of steam assist.

D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%.

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install continuous flow monitors satisfying this requirement.

E. The permit holder shall have 36 months from the date of the Olefins I&II MSS permit amendment issuance to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

F. Until such time as the flow monitors and calorimeters are installed to satisfy the requirements of paragraphs D–E, the holder of this permit shall install a continuous flow monitor on the LLDPE Plant main flare header venting the LLDPE Plant to the flare that provides a record of the LLDPE vent stream flow to the flare. The flow monitor sensor shall be installed in the vent stream such that the total vent stream from the LLDPE plant to the flare is measured. The flow monitor values shall be recorded and accumulated daily.

10. This permit authorizes emissions from the Flare (Emission Point Nos. [EPNs] 1018 and 1067) for normal process degassing procedures including, but not limited to the following activities:

Product grade transitions, normal processing material regeneration, loading/unloading, and other intermittent operations which cause temperature or pressure variations to the incinerator. The permit holder shall document each of these activities and estimate actual emissions associated with each.

11. The LLDPE Incinerator will consist of two incinerators sharing a Common Stack (EPN LI-01). One of the incinerators will serve as a backup. The incinerators shall operate with a destruction efficiency of 99.9 percent and an average residence time of at least 1.57 seconds. The firebox exit temperature will be maintained at no less than 1500° F while waste gas is being fed to the incinerator. The standby incinerator firebox exit

temperature shall be maintained at not less than 800° F. Each incinerator will be equipped with continuous temperature monitors.

12. The following requirements apply to capture systems for each flare designated as EPNs 1018 and 1067 and each incinerator system designated as EPNs LI-01.

    A. If used to control pollutants other than particulate, either:

        (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

        (2) Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

    B. The control device shall not have a bypass.

    or

    If there is a bypass for the control device, comply with either of the following requirements:

        (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

        (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

    A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

    C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Cooling Tower

13. 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 results of the VOC monitoring, cooling water flow rate, and maintenance activities on the cooling water system shall be recorded. The VOC monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly VOC emissions. The rolling 12 month cooling water emission rate shall be recorded on a monthly basis and be determined by summing the VOC emissions between VOC monitoring periods over the rolling 12 month period. The emissions between VOC monitoring periods shall be obtained by multiplying the total cooling water mass flow

between cooling water monitoring periods by the higher of the two VOC monitored results.

Fugitive Emission Monitoring

14. Piping, Valves, Connectors, Pumps, Agitators, 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. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68° F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) Piping and instrumentation diagram (PID);

(2) A written or electronic database or electronic file;

(3) Color coding;

(4) A form of weatherproof identification; or

(5) Designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (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. New and reworked buried connectors shall be welded.

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. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be 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 an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period:

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or 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. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall

be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking 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, compressor, and agitator 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, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, 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 within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds

the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

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 New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

M. Requirements in paragraphs B–E pertaining to new and reworked connections are meant apply to major significant changes in piping. Insignificant activities exempt from requirements B–E pertaining to new and reworked connections include, but are not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; and repair/replacement of small sections of piping. Additionally, the requirement for new and reworked buried connectors to be welded does not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

This paragraph M shall not be construed to authorize the replacement or modification of any component in compliance with requirements of paragraphs B–E with a component which is not in compliance with paragraphs B–E.

15. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 11, damaged or leaking pump, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained.

16. In addition to the weekly physical inspection required by Item E of Special Condition 14, all connectors in gas\vapor and light liquid service shall be monitored annually with an approved gas analyzer in accordance with Items F thru J of Special Condition 14. Alternative monitoring frequency schedules ("skip options") of Title 40 Code of Federal

Regulations Part 63, Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, may be used in lieu of the monitoring frequency required by this permit condition. Compliance with this condition does not assure compliance with requirements of applicable state or federal regulation and does not constitute approval of alternative standards for these regulations. (28CNTA)

Continuing Determination of Compliance

17. The permit holder 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 Catalyst Filling Vent No. 1 (EPN LL-005), the Powder Bin Vent No. 1 (EPN LL-008), and the Incinerator (EPN LI-01) during the production limit of 830MMlbs/year as specified in Special Condition No. 3 of this permit (version dated November 20, 2009). Testing shall be conducted within 120 days of issuance of the amended permit proposed in the application dated September 29, 2009. Requests for additional time to perform sampling shall be submitted to the TCEQ Corpus Christi Regional Office. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and the EPA Reference Methods. **(11/14)**

    Required testing was conducted February 26–27, 2010 in accordance with Special Condition 17, and the required report was submitted April 6, 2010, in accordance with Special Condition 18.D. **(11/14)**

18. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for 40 CFR Part 60 testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

    A. The TCEQ Corpus Christi Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

        (1) Proposed 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.

        (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

        (7) Procedure/parameters to be used to determine worst case emissions during the sampling period

        The TCEQ Corpus Christi Regional Office may request additional information.

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. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

B. Air contaminants emitted from the Catalyst Filling Vent No. 1 (EPN LL-005) to be tested for include (but are not limited to) VOC. Air contaminants emitted from the Powder Bin Vent No. 1 (EPN LL-008) to be tested for includes (but are not limited to) VOC. Air contaminants emitted from the Incinerator Stack (EPN LI-01) to be tested for include (but are not limited to) VOC, nitrogen oxides, and carbon monoxide.

C. Catalyst Filling Vent No. 1 shall be tested during the batch process of preparing TEA. The plant shall operate at maximum production rates during stack emission testing of the Powder Bin Vent No. 1 (EPN LL-008) and the Incinerator (EPN LI-01). Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack tests. These parameters are to be determined at the pretest meeting. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. 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. 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.

D. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" 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 each local air pollution control program.

E. The permit holder shall provide sampling facilities conducive to EPA Method 5 testing for particulate matter on the Incinerator (EPN LI-01) during the next planned unit shutdown.

Maintenance, Startup, and Shutdown (MSS)

19. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize and purge to control per Special Condition 20	1018, 1067, LI-01, LLDPE-TMP
All facilities*	Degas facilities to atmosphere after control per Special Condition 20	LLDPE-MNT
All facilities*	Fill and/or vent to control during startup	1018, 1067, LI-01, or LLDPE-TMP
All facilities*	Drain liquid to remove water	1018, 1067, LI-01, or LLDPE-TMP
Floating roof tanks	Degas to control, then atmosphere per Special Condition 23	1018, 1067, LI-01, LLDPE-TMP, or LLDPE-MNT
Floating roof tanks	Fill clean tank with landed roof	1018, 1067, LI-01, LLDPE-TMP, or LLDPE-MNT
Baghouses/bag filters, Cyclones	Repair, replace, maintain	1018, 1067, LI-01, LLDPE-TMP or LLDPE-MNT
Incinerator	Maintenance on incinerator	1018, 1067, LI-01, LLDPE-TMP, or LLDPE-MNT
All facilities	Uncontrolled hydroblasting following depressurization and purge to control	LLDPE-MNT
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	LLDPE-MNT
Treaters/converters using catalyst	Depressurize and degas catalyst facilities to control for regeneration	1018, 1067, LI-01, or LLDPE-TMP
Catalyst waste bins	Depressurize and purge catalyst facilities to control to remove waste	1018, 1067
Catalyst waste bins	Open to atmosphere to remove waste	LLDPE-MNT
Instruments/analyzers	Maintenance and calibrations	LLDPE-MNT
All facilities	Sampling and sight glass cleaning	LLDPE-MNT
Carbon canisters	Maintenance on carbon canisters	LLDPE-MNT

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and control devices meeting the requirements of Special Condition 22 and 26. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities

authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility

Emissions from activities listed on Attachment A may be considered to be equal to the potential to emit represented in the permit amendment application, PI-1 dated January 3, 2008, and updated in subsequent application submittals. The estimated emissions from these activities must be revalidated annually. This revalidation shall consist verifying the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

A. The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

B. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

C. the type of planned MSS activity and the reason for the planned activity;

D. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

E. the date and time of the MSS activity and its duration;

F. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

20. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements.

A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.

B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed

vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

E. After degassing in accordance with Paragraph D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.

(1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 21. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel

entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare or incinerator).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except as noted in Attachment A, all instances of venting directly to atmosphere per Paragraph F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities.

21. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

(2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured must be less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured must be at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000*mole fraction of the total air contaminants present in the gas stream that can be detected by the tube.

The mole fraction of the total air contaminants present in the gas stream that can be detected by the tube may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

(1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.

D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

(1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.

(2) The sample bag shall be connected directly to the sample valve.

(3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.

(4) The two valves shall then be closed to seal the sample in the bag.

(5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.

(6) This process is repeated to collect additional samples.

(7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

22. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

B. Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

(1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

(2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

(3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 21.

(4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.

23. This permit authorizes emissions for floating roof storage tanks during planned floating roof landings. Tank roofs may only be landed for tank inspection/maintenance. Tank roof landings include all operations when the tank floating roof is on its supporting legs. The following requirements apply to tank roof landings.

A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.

B. Tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

(1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.

(2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.

(3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 21.

(4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.

(5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.

C. The tank shall not be opened or ventilated without control, except as allowed below until one of the criteria in part D of this condition is satisfied.

(1) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.

(2) Access points shall be closed when not in use

D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.

(1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.

(2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:

(a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.

(b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

(c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 21.

(3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs.

F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:

(1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;

(2) the reason for the tank roof landing;

(3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:

(a) the roof was initially landed,

(b) all liquid was pumped from the tank to the extent practical,

(c) start and completion of controlled degassing, and total volumetric flow,

(d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,

(e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,

(f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and

(g) tank roof off supporting legs, floating on liquid;

(4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 — Storage of Organic Liquids" dated November 2006 and the permit application.

24. Bag filter maintenance and cyclone maintenance shall be performed in a manner to minimize particulate matter emissions and minimize down time.

25. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

26. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

(1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

(2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

(a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

(b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 21.

(4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 21 are also acceptable for this documentation

(3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.

D. The plant flare system (EPNs 1067 and 1018) or incinerator (EPN LI-01).

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 21.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

Date: November 21, 2014

Attachment A

Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NOx	CO	PM
Hydroblasting*	X			
Repair/replace filters/strainers	X	X	X	X
Repair/replace baghouses/bag filters	X	X	X	X
Repair of cyclones				X
Catalyst waste removal	X	X	X	
Instrument/analyzer calibration/repair, sight glass cleaning/repair, transmitter repair	X	X	X	X
Carbon can replacement*	X			
Sampling*	X			
Other Attachment A activities, as identified in the permit application, with emission rates less than 0.1 pound VOC*	X			

* - These activities are not subject to the requirements of Special Condition 19.

Dated: September 29, 2014

Attachment B

Routine Maintenance Activities

Repair/replacement that may be isolated so that the process volume to be emptied and degassed is less than 200 cubic feet such as:
Small equipment component repair/replacement
Column, reactor, or vessel repair/replacement
Piping degassing

Dated: September 29, 2014

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 19.
Floating roof tank landing and refill
Plant startup, shutdown, and turnaround
Incinerator degassing/repair/replacement
Activities not listed on Attachments A and B or not otherwise authorized

Date: September 29, 2014

Emission Sources - Maximum Allowable Emission Rates

Permit Number 20203 and PSDTX1224

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-001	Final Degasser No. 1	VOC	10.95	29.66
		PM	0.44	1.94
		PM_{10}	0.44	1.94
		$PM_{2.5}$	0.44	1.94
LL-003	Extruder Feed Bin No. 1	VOC	2.37	9.72
LL-004	Extruder Feed Bin No. 2	VOC	2.37	9.72
LL-005	Catalyst Filling Vent No. 1	VOC	9.65	0.43
LL-006	Catalyst Filling Vent No. 2	VOC	8.80	0.10
LL-007	Buffer Silo No. 1	VOC	2.28	6.48
		PM	0.10	0.46
		PM_{10}	0.10	0.46
		$PM_{2.5}$	0.10	0.46
LL-008	Powder Bin No. 1	VOC	1.20	5.28
		PM	0.10	0.46
		PM_{10}	0.10	0.46
		$PM_{2.5}$	0.10	0.46
LL-011	Blending Silo No. 1	PM	0.18	0.78
		PM_{10}	0.18	0.78
		$PM_{2.5}$	0.18	0.78

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-012	Blending Silo No. 2	PM	0.18	0.78
		PM_{10}	0.18	0.78
		$PM_{2.5}$	0.18	0.78
LL-013	Product Silo No. 1	PM	0.13	0.58
		PM_{10}	0.13	0.58
		$PM_{2.5}$	0.13	0.58
LL-014	Product Silo No. 2	PM	0.13	0.58
		PM_{10}	0.13	0.58
		$PM_{2.5}$	0.13	0.58
LL-015	Hopper Car Silo No. 1 and Hopper Car Loading No. 1	PM	0.18	0.79
		PM_{10}	0.18	0.79
		$PM_{2.5}$	0.18	0.79
LL-016	Hopper Car Silo No. 2 and Hopper Car Loading No. 2	PM	0.18	0.79
		PM_{10}	0.18	0.79
		$PM_{2.5}$	0.18	0.79
LL-017	Truck Silo No. 1	PM	0.26	1.16
		PM_{10}	0.26	1.16
		$PM_{2.5}$	0.26	1.16
LL-019	Auto-Packer Silo No. 1	PM	0.26	1.16
		PM_{10}	0.26	1.16
		$PM_{2.5}$	0.26	1.16
LL-023	Additive Mix Tanks Bag Filter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-025	Master Batch No. 1	PM	0.06	0.24
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
LL-026	Master Batch No. 2	PM	0.06	0.24
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
Process	Process Fugitives (5)	VOC	9.96	43.62
LI-01	Incinerator	VOC	1.24	5.43
		VOC MSS (7)	1303.70	14.93
		PM	0.24	1.06
		PM_{10}	0.24	1.06
		$PM_{2.5}$	0.24	1.06
		NO_x	8.40	36.80
		NO_x MSS (7)	79.30	1.04
		CO	8.98	39.34
		CO MSS (7)	573.00	7.53
		SO_2	0.04	0.18
1018	Olefins I Elevated Flare (6)	VOC	65.07	6.39
		VOC MSS (7)	1303.70	14.93
		NO_x	5.31	0.58
		NO_x MSS (7)	79.30	1.04
		CO	38.24	3.99
		CO MSS (7)	573.00	7.53

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1067	Olefins II Elevated Flare (6)	VOC	65.07	6.39
		VOC MSS (7)	1303.70	14.93
		NO_x	5.31	0.58
		NO_x MSS (7)	79.30	1.04
		CO	38.24	3.99
		CO MSS (7)	573.00	7.53
LL-CT	LLDPE Cooling Tower	VOC	1.77	7.72
		PM	0.42	1.85
		PM_{10}	0.33	1.44
		$PM_{2.5}$	0.01	0.01
LL-009	Weight Feeder Surge Hopper F1-850	PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	0.01	0.05
LL-010	Weight Feeder Surge Hopper F2-850	PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	0.01	0.05
LL-030	Train 1 Re-Run Filter S1-855	PM	0.27	1.07
		PM_{10}	0.27	1.07
		$PM_{2.5}$	0.27	1.07
LL-031	Train 2 Re-Run Filter S2-855	PM	0.27	1.07
		PM_{10}	0.27	1.07
		$PM_{2.5}$	0.27	1.07

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-032	Train 1 Masterbatch Hopper F1-830A/B	PM	0.01	0.03
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.03
LL-033	Train 2 Masterbatch Hopper F2-830A/B	PM	0.01	0.03
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.03
LL-034	Train 1 Q1-830 Feeder Filter S1-830	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
LL-035	Train 2 Q2-830 Feeder Filter S2-830	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
LL-036	Train 1 F1-810 Vent Filter S1-811	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-037	Train 2 F2-810 Vent Filter S2-811	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-038	Train 1 F1-812 Vent Filter S1-812	PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.02	0.07
LL-039	Train 2 F2-812 Vent Filter S2-812	PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.02	0.07

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-040	Train 1 F1-800 Vent Filter S1-800.1	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-041	Train 2 F2-800 Vent Filter S2-800.1	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-042	Train 1 F1-810 Feeder Filter Q1-810	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-043	Train 2 F2-810 Feeder Filter Q2-810	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-044	Train 1 F1-856 Feeder Filter Q1-856	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-045	Train 2 F2-856 Feeder Filter Q2-856	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-046	Train 1 X1-856 Feeder Filter C1-856	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06
LL-047	Train 2 X2-856 Feeder Filter C2-856	PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-048	F1-325 Waste Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-049	F2-325 Waste Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-050	S1-412 Waste Powder	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-051	S2-412 Waste Powder	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-052	S1-440 Sieve Clean-Out	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-053	S2-440 Sieve Clean-Out	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-054	F1-445 Refuse Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-055	F2-445 Refuse Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-056	F1-553 Refuse Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-057	F2-553 Refuse Hopper	VOC	0.01	0.01
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
LL-059	F2-800 Bag Filter	VOC	0.01	0.01
		PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.02	0.07
LL-060	F2-810 Bag Filter	VOC	0.01	0.01
		PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.02	0.07

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-061	C1-841 Pellet Dryer	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
LL-062	C2-841 Pellet Dryer	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
LL-063	S1-847 Bag Filter	PM	0.01	0.03
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.03
LL-064	S2-847 Bag Filter	PM	0.01	0.03
		PM_{10}	0.01	0.03
		$PM_{2.5}$	0.01	0.03
LL-065	C1-400 Compressor Lube Oil Container	VOC	0.45	1.52
LL-066	C2-400 Compressor Lube Oil Container	VOC	0.45	1.52
LL-067	FO-912 Hexene Storage Tank	VOC	0.53	0.81
LL-068	FO-913 Hexene Storage Tank	VOC	0.53	0.81
LL-069	Hopper Car Unloading Bag Filter	PM	0.03	0.09
		PM_{10}	0.03	0.09
		$PM_{2.5}$	0.03	0.09
LL-070	Elutriator Cyclone S1-897	PM	0.14	0.60
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.02	0.09

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL-071	Elutriator Cyclone S2-897	PM	0.14	0.60
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.02	0.09
Maintenance, Startup, and Shutdown (MSS)				
LLDPE-MNT	MSS to Atmosphere	VOC MSS	226.2	3.59
		PM MSS	1.70	0.04
		PM_{10} MSS	1.70	0.04
		$PM_{2.5}$ MSS	1.70	0.04
LLDPE-TMP	MSS from Temporary Sources	NO_x MSS (7)	79.30	1.04
		CO MSS (7)	573.00	7.53
		VOC MSS (7)	1303.70	14.93

Emission Sources - Maximum Allowable Emission Rates

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) The emissions contributed only from this permitted facility which is the Linear Low Density Polyethylene (LLDPE) unit. The vents from the LLDPE unit to the Olefins I Elevated Flare (EPN 1018) and the Olefins II Elevated Flare (EPN 1067) are limited to the following scenarios:
A. All vents from the LLDPE unit can vent to EPN 1018 with no vents from the LLDPE unit venting at the same time to EPN 1067.
B. All vents from the LLDPE unit can vent to EPN 1067 with no vents from the LLDPE unit venting at the same time to EPN 1018.
This exception does not exempt the holder of this permit from the requirements of 30 TAC §§ 101.201 and 101.211.
(7) TPY allowable emission rates for CO MSS, NO_x MSS, and VOC MSS reflect combined cap for flares LI-01, LLDPE-TMP, 1018 and 1067.

Date: November 21, 2014

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
High Density Polyethylene II Plant
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 20″ Longitude 96° 32′ 50″

Permit: 40157 and PSDTX1222

Revision Date : May 28, 2013

Renewal Date: October 20, 2019

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 40157 and PSDTX1222

Emission Standards

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 limits on that table and other operating requirements specified in the special conditions. **(08/09)**

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions if applicable, with the exemption of those listed below. **(08/09)**

   Relief Valves (PSV-2006, PSV-2007, PSV-2008, and PSV-2009)

Federal Applicability

3. This facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels and for Polypropylene, Polyethylene, Polystyrene, and Poly (Ethylene Terephthalate) Production in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A, Kb, DDD, and VV. **(08/09)**

4. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emissions Standards for Hazardous Air Pollutants for Source Categories promulgated for Miscellaneous Organic Air Pollutants 40 CFR Part 63, Subparts A and FFFF. **(08/09)**

Operational Standards

5. The polymer production shall be recorded daily during operation of this facility. The records shall include the production rate for the day, the polymer type or grade, and the quantities of any comonomers used. All records shall be dated for each day this facility is operated, and this record shall be made available to the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or his designated representative upon request.

6. Total volatile organic compounds (VOC) content of the polymer emitted to the atmosphere after the Pellet Dryer (Emission Point No. [EPN] 003) shall not exceed 40 pounds of VOC per million pounds (MM/lbs) of polymer.

7. The facility covered by this permit shall not operate unless all associated air pollution abatement equipment is maintained in good working order and operating during normal facility operations. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouses:

A. The baghouse pressure drop shall be recorded continuously for each baghouse during operation of this facility. All records of baghouse pressure drops shall be dated for each day this facility is operated, and this record shall be made available to the Executive Director of the TCEQ or his designated representative upon request.

B. When there are visible stack emissions from a baghouse, the process shall be shut down, and the entire baghouse shall be tested and inspected, and failed or damaged parts shall be repaired or replaced.

C. A spare parts inventory for each baghouse shall be maintained at the site of this facility.

D. The TCEQ Regional Director shall be notified as soon as possible of any baghouse system malfunction that results in visible emissions.

8. Flares (EPNs 1018 and 1067) shall be designed and operated in accordance with the following requirements: **(11/12)**

A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. 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.

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. This shall be ensured by the use of steam assist.

D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

The permit holder shall have 36 months from the date of the Olefins I and II permit amendment issuance to install continuous flow monitors satisfying this condition (8D).

E. The permit holder shall have 36 months from the date of the Olefins I&II MSS permit amendment issuance to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

F. Until such time as the flow monitors and calorimeters are installed to satisfy Condition 8D and 8E, the holder of this permit shall install continuous flow monitors on the High Density Polyethylene (HDPE) II plant main flare header venting the HDPE II plant to the flare that provide a record of the HDPE II vent stream flow to the flare. The average hourly values of the flows shall be recorded. Records of the hourly averages shall be maintained.

9. The following requirements apply to capture systems for the flare designated as EPN 1067. **(02/11)**

A. If used to control pollutants other than particulate, either:

(1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

(2) Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device shall not have a bypass.

or

If there is a bypass for the control device, comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

10. A leak in the cooling tower water shall be defined as 50 ppb or greater. The VOC associated with cooling tower water shall be monitored monthly using the El Paso Products Company method of analysis. This method is described in the TCEQ guidance

document entitled "Air Quality Permit Technical Guidance for Chemical Sources - Cooling Towers," dated May 1997. The holder of this permit may use an air stripping system equivalent to the El Paso Products Company method of analysis, provided that he previously obtains written approval from the TCEQ Office of Air, Air Permits Division.

The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of the monitoring and maintenance efforts shall be recorded and such records shall be maintained for a period of two years. The records shall be made available to the TCEQ Executive Director or his designated representative upon request. **(10/09)**

11. The Catalyst Activator Direct Heater (EPN H-601) shall only be fired with fuel gas containing less than 3.6 ppmv hydrogen sulfide (H_2S). The gas shall be sampled annually for H_2S. This requirement may also be met through information provided by the natural gas supplier.

Fugitive Emission Monitoring

12. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP **(11/12)**

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

A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) piping and instrumentation diagram (PID);

(2) a written or electronic database or electronic file;

(3) color coding;

(4) a form of weatherproof identification; or

(5) designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (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. New and reworked buried connectors shall be welded.

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. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be 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 an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or 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. If a relief valve is equipped with rupture disc, a pressure-sensing

device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking 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, compressor, and agitator 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, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, 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 within 15 days of the detection of the leak. A listing of all

components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

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 New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

M. With respect to Special Condition 12, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

13. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 12, damaged or leaking pump, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(11/12)**

Polymer Residual VOC Emission Control

14. Ongoing compliance with the emission limits for downstream of the dryer handling shall be determined for each line by calculation using weekly production rates and weekly sampling and testing of the polymer immediately downstream of the dryer (D) and at final product loading (P). Polymer production rates and monitoring records to be maintained at the plant site for two years and made available upon request shall include (but are not limited to):

    A. Date and time of sample;

    B. Actual plant production rate at the time of sample and weekly average production rate;

    C. Product number and melt index;

    D. Measured pounds of VOC per MMlbs of polymer after the dryer and just before the final product is shipped; and

    E. Downstream handling emissions shall be calculated by (D-P) x (weekly production). Calculations shall take into account any changes in product type during the week.

    Sampling shall begin no later than 60 days after initial start-up of this facility. Sampling and testing shall be performed with methods approved by the TCEQ Regional Office.

15. 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 following emission points: Pellet Dryer (EPN 003), Pellet Blending and Storage (EPN 004), Pellet Loadout Filter (EPN 005), and Extruder Feed Tank Vent (EPN 013).

    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 TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director or the TCEQ Compliance Support Division 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 Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals that must have EPA and TCEQ approval shall be submitted to the TCEQ Compliance Support Division.

B. Air contaminants emitted from the stacks to be tested include (but are not limited to) VOC and hexane.

C. Sampling shall occur within 60 days of achieving maximum production but no later than 180 days after the initial start-up of the facility, and 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 appropriate TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires EPA approval, and requests shall be submitted to the TCEQ Austin Compliance Support Division.

Polymer pellet sampling per Special Condition No. 11 shall also take place when performing the stack samples. These results shall be included in the test report and compared to those from the two stacks downstream of the dryer.

D. The plant shall operate at maximum production 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 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. Two 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 TCEQ Corpus Christi Regional Office.

One copy to EPA, Region 6, Dallas Office.

F. Stack sampling of all Vents (EPNs 003, 004, 005, and 013) shall be performed within 120 days if two consecutive polymer pellet samples analyzed per Special Condition No. 10 exceed the maximum pellet VOC concentration, that was obtained by sampling in accordance with Special Condition No. 10, while performing any stack sampling under Special Condition No. 11, by more than 20 percent. This sampling is

not required if stack sampling under this section (Special Condition No. 15F) has been satisfactorily performed within the last 12 months.

Maximum Available Control Technology (MACT) Review

16. The facilities represented in this permit were reviewed for MACT in accordance with 30 TAC Chapter 116, Subchapter C. Special Condition Nos. 2, 3, 5, 6, 7, 9, 10, 11 and 12 support the determination of compliance with the MACT requirements. If the EPA promulgates a MACT standard applicable to the facilities in this permit which were reviewed for MACT in accordance with Subchapter C, and no compliance date is established specifically for these facilities, then the facilities shall comply with the new standard no longer than eight years after its promulgation.

Maintenance, Startup, and Shutdown (MSS)

17. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize and purge to flare per Special Condition 15	1067
All facilities*	Degas facilities to atmosphere after flare per Special Condition 15	006MSS
All facilities*	Fill and/or vent to flare during startup	1067
All facilities*	Drain liquid to remove water	1067
Baghouses/bag filters	Repair, replace, maintain	006MSS
Reactors	Uncontrolled hydroblasting following depressurization and purge to flare	006MSS
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	006MSS
Treaters/converters using catalyst	Depressurize and degas catalyst facilities to flare for regeneration	1067
Catalyst waste bins	Depressurize and purge catalyst facilities to flare to remove waste	1067
Catalyst waste bins	Open to atmosphere to remove waste	006MSS
Instruments/analyzers	Maintenance and calibrations	006MSS

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and associated control devices. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility

Emissions from activities listed on Attachment A may be considered to be equal to the potential to emit represented in the permit amendment application, PI-1 dated January 3, 2008, and updated in subsequent application submittals. The estimated emissions from these activities must be revalidated annually. This revalidation shall consist verifying the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

B. the type of planned MSS activity and the reason for the planned activity;

C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

D. the date and time of the MSS activity and its duration;

E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

18. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements. Plugged reactors will be degassed and hydroblasted in accordance with Special Condition 19.

A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.

B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

E. After degassing in accordance with Special Condition 15.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.

(1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of ii below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 16. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no

air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except for Attachment A activities, all instances of venting directly to atmosphere per Special Condition 15.F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities. **(11/12)**

19. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

(2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000*mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

(1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.

D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

(1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.

(2) The sample bag shall be connected directly to the sample valve.

(3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.

(4) The two valves shall then be closed to seal the sample in the bag.

(5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.

(6) This process is repeated to collect additional samples.

(7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting. **(11/12)**

20. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

    A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

    B. Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

    C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

        (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

        (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

        (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 19.

        (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

    D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis. **(11/12)**

21. The reactor system shall be depressurized, liquids removed, and degassed per Special Condition 18.A, B, C, and D prior to opening the facility for hydroblasting. The reactor legs and vents shall be opened sequentially over a period of time as identified in the confidential portion of a letter dated January 26, 2009 submitted in response to a notice of deficiency. Trapped vapor that cannot be degassed because of the presence of polymer plugs may be vented directly to atmosphere during hydroblasting. **(11/12)**

22. Bag filter maintenance shall be performed in am manner to minimize particulate matter emissions and minimize down time. **(11/12)**

23. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**

24. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

    Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

    A. Carbon Adsorption System (CAS).

        (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

        (2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

            (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

            (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 16.

(4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration.

A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 16 are also acceptable for this documentation

(3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.

D. The plant flare system (EPN 1067).

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 16.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. **(11/12)**

25. The following requirements apply to capture systems for the elevated flare (EPN 1067) system.

A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The flare shall not have a bypass.

or

If there is a bypass for the flare, comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit.

C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above. **(11/12)**

26. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013

Permits 40157 and PSDTX1222

Attachment A

Inherently Low Emitting Activities

Activity	**Emissions**			
	VOC	**NOx**	**CO**	**PM**
Repair water boots	X	X	X	
Repair/replace filters/strainers	X	X	X	X
Repair/replace baghouses/bag filters	X	X	X	X
Catalyst waste removal	X	X	X	
Instrument/analyzer calibration/repair, sight glass cleaning/repair, transmitter repair	X	X	X	X
Attachment B activities with emission rates less than 0.1 pound VOC	X	X	X	X
Other Attachment A activities with emission rates less than 0.1 pound VOC	X	X	X	X

Dated: November 30, 2012

Permits 40157 and PSDTX1222

Attachment B

Routine Maintenance Activities

Vessel, compressor, pump repair/replacement

Fugitive component (valve, pipe, flange) degas/repair/replacement

Pressure storage vessel repair/replacement

Column, reactor, relief valve, and heat exchanger repair/replacement

Catalyst treatment

Dated: November 30, 2012

Permits 40157 and PSDTX1222

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 17.

Reactor hydroblasting

Plant startup shutdown, and turnaround

Activities not listed on Attachments A and B or not otherwise authorized

Date: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 40157 and PSDTX1222

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1	Flash Tank Cleanout Screen	VOC	2.30	0.14
2	Powder Storage Tank	PM	0.05	0.21
3	Pellet Dryer	VOC	0.66	2.90
004a 004b	Pellet Blending and Storage I (6) Pellet Blending and Storage II (6)	VOC	1.38	6.05
		PM	0.26	1.13
005a 005b 005c 005d	Pellet Loadout Filter I (7) Pellet Loadout Filter II (7) Pellet Loadout Filter III (7) Pellet Loadout Filter IV (7)	VOC	1.38	6.05
		PM	0.49	2.14
6	Process Fugitives (5)	VOC	15.34	67.19
11	Fluff Hopper Car Loading Filter	PM	0.04	0.15
12	Pellet Hopper Car Loading Filter	PM	0.01	0.01
13	Extruder Feed Tank Vent	VOC	0.27	1.18
		PM	0.01	0.04
14	Extruder Building Vacuum Filter	PM	0.01	0.04
16	HEPA Filter Vent Activator	CO	5.80	11.18
		PM	0.01	0.01
17	Quench Station Vent	PM	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
18	Raw Catalyst Charge Bldg. Filter	PM	0.01	0.01
19	Drum Unloading Enclosure Filter	PM	0.01	0.01
20	Catalyst Fugitives	PM	0.01	0.01
H-601	Catalyst Activator Direct Heater	VOC	0.09	0.30
		NO_x	0.97	3.32
		CO	1.09	4.78
		PM	0.12	0.42
		SO_2	0.01	0.03
IC4LOAD	Isobutane Unloading Line Vent	VOC	0.01	0.04
1067	Elevated Flare	VOC	4.55	19.91
		NO_x	0.31	1.37
		CO	1.59	6.96
	Elevated Flare MSS	VOC	699.00	7.17
		NO_x	35.00	0.56
		CO	247.00	3.64
PP2-CT	Cooling Tower	VOC	1.32	5.79
006MSS	Hydroblasting	VOC	963.90	4.30
	Other MSS	VOC	94.00	2.49
		PM	0.60	0.03

Emission Sources - Maximum Allowable Emission Rates

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) The EPNs 004a and 004b, Pellet Blending and Storage, are two identical vent stack systems. Maximum hourly and annual emissions are for both systems combined.
(7) The EPNs 005a, 005b, 005c, and 005d, Pellet Loadout Filter System, are two identical sets of dual vent stacks. Maximum hourly and annual emissions are for both sets combined.

Date: November 30, 2012

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation Texas
Authorizing the Construction and Operation of
Sitewide MSS Activities
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 00″ Longitude 096° 32′ 30″

Permit: 83763 and PSDTX1230

Issuance Date : November 30, 2012

Renewal Date: November 30, 2022

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

1. This permit authorizes emissions from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the MAERT and other requirements specified in the special conditions.

2. This permit authorizes all site wide maintenance activities including bulk painting and abrasive blasting of equipment and structures, the spot use of aerosols, solvents and solvent products, lubricating and cleaning agents applied throughout the site and in the maintenance shops, the cold solvent degreaser operations and the Inherently Low Emitting Activities at the site identified in Attachment A.

   Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

   The permit holder shall maintain records of the information below for the site wide maintenance products at the site. The following documentation is required for each product:

   A. Chemical name(s), composition, and chemical abstract registry number if available.

   B. Material Safety Data Sheet.

   C. Maximum concentration of the chemical(s) in the product in weight percent

   D. Maintenance product usage and the associated emissions shall be recorded each calendar quarter, with the rolling 12 month total emissions updated each quarter. Records must be available within 30 days of the end of each quarter.

3. Chemical constituents of new and reformulated site wide maintenance products are authorized as follows:

   A. Chemical constituents previously authorized for site wide maintenance use remain authorized provided that the annual allowed usage rates do not exceed the amounts documented in the site wide maintenance, startup and

shutdown (MSS) permit application and the emissions do not exceed the allowable emission rates on the MAERT.

B. Chemical constituents which are emitted and are subject to effects evaluation review and which were not previously authorized for site wide maintenance use may be authorized through the following procedure:

(1) The Effects Screening Level (ESL) for each new chemical constituent shall be obtained from the latest on-line edition of the TCEQ's ESL List. For chemicals not included in the ESL List, ESLs may be obtained directly from the TCEQ's Toxicology Division.

(2) Short-term [pounds per hour (lb/hr)] and annual [tons per year (TPY)] emissions and corresponding ground level toxicological impacts shall be estimated for all new chemical constituents in the maintenance product using the ESL impacts analysis procedure documented in the site wide maintenance, startup and shutdown (MSS) permit application.

(3) The new maintenance product chemical constituent is authorized for use in the amount shown by the ESL impacts analysis to not exceed two times their ESL and the emissions do not exceed the allowable emission rates on the MAERT.

C. The constituents of manually applied lubricants, pastes, resins, polymers and adhesives with vapor pressures below 0.002 psia at the application temperature with no expected potential emission are allowed and do not have to be evaluated or accounted in this permit. Note: The constituents of manually applied products have no expected potential emission if they are not spray applied and do not have a fine particulate consistency exposed to wind.

4. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

<u>Bulk Painting and Abrasive Blasting</u>

5. Bulk painting operations include spray painting, brush and roller painting, cleanup activities, and mixing of paints and solvents on significant equipment and structure painting. The surface coating operations shall comply with the following requirements:

A. High-volume, low-pressure spray equipment and/or airless spray equipment, or other equipment that is demonstrated to have the same or higher transfer efficiency, shall be used for all spraying of surface coatings.

This equipment shall be operated and maintained within the limits set forth by the manufacturer.

B. All paints and solvents shall be stored in closed containers when not in use.

C. All paint gun cleanup shall be performed by discharging the cleaning solvent into a container. The collected material shall be either recycled or properly removed from the plant site in accordance with all state and local regulations.

D. All unused paint, used solvents, and cleanup rags shall be stored in sealed containers until either recycled or properly removed from the plant site in accordance with all state and local regulations.

E. Paint and spray rate info for all spray equipment and bulk painting at the site shall be accounted for daily and must include:

(1) each coating and solvent used;

(2) the hours spray equipment was used; and

(3) the location spraying took place.

F. Bulk painting emissions shall be estimated and recorded and the rolling 12-month emissions updated quarterly. Records must be available within 30 day of the end of each quarter.

6. Outdoor abrasive blasting at the site shall meet the following requirements:

A. Blast media usage is limited to 1200 lbs/hr and may be coal slag, nickel slag copper slag, nut shells or industrial garnet or other similar low dust media provided that it does not contain:

(1) asbestos or greater than 1.0 weight percent crystalline silica; and

(2) the weight fraction of any metal in the blast media with a short term effects screening level (ESL) less than 50 micrograms per cubic meter as identified in the most recently published TCEQ ESL list shall not exceed the ESL metal/1000.

B. The MSDS for each media used shall be maintained on site.

C. Blasting media usage hours, location and rate shall be recorded daily.

D. Abrasive blasting emissions shall be estimated and recorded and the rolling 12 month total emissions updated quarterly. Records must be available within 30 day of the end of each quarter.

7. During painting and abrasive blasting no visible emissions shall leave the property.

Degreaser Requirements

8. The cold solvent cleaners shall meet the following requirements:

A. Use a solvent that has a vapor pressure less than 0.3 psia at 1000F, and is not heated.

B. Any solvent spray system shall produce a solid fluid stream (not a fine, atomized, or shower type spray) with a minimal operating pressure that is necessary to prevent splashing above the acceptable freeboard. The operating pressure shall not exceed 10 pound per square inch gauge.

C. The degreaser must maintain a freeboard that provides a ratio equal to or greater than 0.7, or a 4 inch water cover (solvent must be insoluble in and heavier than water). To determine the free board ratio, the freeboard height measurement is taken from the top of the degreaser to the top of the solvent level divided by the smallest width measurement at any height from the solvent level to the top of the degreaser.

D. Have a cover which must be kept closed whenever parts are not being handled in the cleaner.

E. Have an internal-cleaned parts drainage rack or facility, for enclosed draining under the cover and parts shall be drained for at least 15 seconds or until dripping ceases.

F. Porous or absorbent materials, such as cloth, leather, wood, or rope, shall not be degreased.

G. Leaks shall be repaired immediately, or the degreaser shall be shut down until repairs are completed.

H. Spills shall be cleaned up immediately. Towels, rags, or other absorbent materials used for cleanup shall be placed into sealed containers immediately after use and shall be kept in storage until properly removed from the site.

I. Degreaser tank cleaning shall be conducted in a manner so as to minimize fugitive emissions. Residue, sludge, or contaminated cleaning solution removed from the degreaser will be stored in covered containers until

removal from the site and recycled or disposed of in accordance with applicable regulations. Containers of solvent shall not be disposed of or transferred to another party such that the solvent can evaporate into the atmosphere.

J. A permanent and conspicuous label summarizing proper operating procedures to minimize emissions shall be posted on or near the degreaser.

K. Emission records for each degreaser shall be kept based on total solvent makeup, gross usage minus spent solvent disposal, and updated when the solvent is changed out.

9. With the exception of the MAERT emission limits, these permit conditions become effective 180 days after this permit application, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded.

Dated: November 30, 2012

Permits 83763 and PSDTX1230
Attachment A
Inherently Low Emitting Activities

Activity	**Emissions**
	VOC
Instrumentation/analyzer maintenance	X
Gas cylinder replacement	X
Open Container Sampling	X
Closed system sampling	X

Dated: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 83763 and PSDTX1230

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
SITE-MNT PAINT	Site-Wide Maintenance - Bulk Painting	VOC	21.12	7.3
		PM	6.09	2.1
		PM_{10}	1.87	0.03
		$PM_{2.5}$	0.19	0.003
		IOC-U	0.10	0.008
SITE-MNT SHOPS	Site-Wide Maintenance - Spot Usage	VOC	34.35	9.5
		PM	0.06	0.004
		PM_{10}	0.06	0.004
		$PM_{2.5}$	0.002	0.0001
		IOC-U	0.10	0.0012
		Exempt Solvents	3.5	1.7
SITE-MNT BLAST	Site-Wide Outdoor Abrasive Blasting	PM	3.43	0.20
		PM_{10}	0.41	0.02
		$PM_{2.5}$	0.06	0.01
SITE-ILE	Site-Wide Inherently Low Emitting Maintenance Activities	VOC	0.21	0.10
EP-4	EDC Unit Degreaser	VOC	0.14	0.60
EP-6	Ethylene Glycol Unit Degreaser	VOC	0.14	0.60
EP-7	Olefins I Solvent Degreaser	VOC	0.14	0.60

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EP-9	Olefins II Solvent Degreaser	VOC	0.14	0.60
EP-10	PO II Solvent Degreaser	VOC	0.14	0.60
LL-EP-8	LLDPE/PO I Solvent Degreaser	VOC	0.14	0.60

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
IOC-U - inorganic compounds (unspeciated)
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: November 30, 2012

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
PP II Petrochemical Manufacturing
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41′ 20″ Longitude 96° 32′ 50″

Permit: 91780 and PSDTX1240

Revision Date : May 28, 2013

Renewal Date: August 25, 2016

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 91780 and PSDTX1240

Emissions Standards

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 limits on that table and other operating conditions specified in this permit.

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

   Relief Valve PSV-3032

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency regulations on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction or Modification commenced after July 23, 1984, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, and VOC Emissions From the Polymer Manufacturing Industry in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A, Kb, VV, and DDD.

Operational Specifications

4. The facilities covered by this permit shall not operate unless all associated air pollution abatement equipment is maintained in good working order and operating during normal facility operations. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouses, fabric filters, and cyclones:

   A. Baghouse and fabric filter pressure drops shall be recorded continuously during operation of the facility. All pressure drop records shall be dated for each day the facility is operated, and these records shall be maintained on-site for a rolling 60-month period and made available for inspection by the Executive Director of the TCEQ or a designated representative upon request.

   B. When there are visible emissions from a baghouse, fabric filter, or cyclone, the operation associated with the event shall be shut down as soon as practicable and the entire baghouse, fabric filter system or cyclone shall be tested/inspected, and the failed or damaged parts shall be repaired or replaced.

   C. A spare parts inventory with an adequate number of replacement bags for each baghouse and an adequate number of replacement filters for each fabric filter shall

be maintained on site at all times. All baghouses, fabric filters, and cyclones shall undergo a preventative maintenance inspection on an annual basis.

D. The TCEQ Regional Director shall be notified as soon as possible of any baghouse, fabric filter, or cyclone system malfunction that results in visible emissions or necessitates repair.

5. Each flare shall operate with no less than 98 percent efficiency in disposing of the carbon compounds captured by the collection system from the Polypropylene II Unit.

6. Flares (EPN 1018 and 1067) shall be designed and operated in accordance with the following requirements:

A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. 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.

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. This shall be ensured by the use of steam assist.

D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%.

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install continuous flow monitors satisfying this condition (6D).

E. The permit holder shall have 36 months from the date of the Olefins I & II MSS permit amendment issuance to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

F. Until such time as the flow monitors and calorimeters are installed to satisfy Condition 6D and 6E, the holder of this permit shall install a continuous flow monitor on the Polypropylene II (PPII) Plant main flare header venting the PPII Plant to the flare that provides a record of the PP II vent stream flow to the flare. The flow monitor sensor shall be installed in the vent stream such that the total vent stream from the PPII plant to the flare is measured. The average hourly values of the PP II flow shall be recorded.

7. This permit authorizes product grade transition emissions from the Flares (EPN 1018 and EPN 1067). These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The performance of each product grade transition activity and the emissions associated with it shall be recorded and the rolling 12-month emissions shall be updated on a monthly basis. These records shall include at least the following information:

   A. The physical location at which emissions from the product grade transition activity occurred, including the emission point number, common name, and any other identifier for the point at which the emissions were released into the atmosphere;

   B. The type of planned product grade transition activity and the reason for the planned activity;

   C. The common name and the facility identification number of the facilities at which the product grade transition activity and emissions occurred;

   D. The date and time of the product grade transition activity and its duration;

   E. The estimated quantity of each air contaminant or mixture of air contaminants, emitted with the data and methods used to determine it.

8. Total VOC emitted to the atmosphere between the extruder and the point of final product loading shall not exceed 90 pounds per million pounds of polypropylene product on a rolling 12-month average.

9. Hexane shall be used as the solvent carrier in the Polypropylene II process.

10. Polypropylene II (which includes train 1 and train 2) total annual production of product is limited to 482,000 tons per 12 consecutive months. Records of production totals shall be maintained on a rolling 12 month basis.

Fugitive Emission Monitoring

11. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP

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

A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68EF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

   The exempted components may be identified by one or more of the following methods:

   (1) Piping and instrumentation diagram (PID);

   (2) A written or electronic database or electronic file;

   (3) Color coding;

   (4) A form of weatherproof identification; or

   (5) Designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (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. New and reworked buried connectors shall be welded.

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. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be 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 an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or 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. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking 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, compressor, and agitator 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, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, 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 within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

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 New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

M. With respect to Special Condition 11, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

12. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 11, damaged or leaking pump, compressor, and agitator 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. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained.

Cooling Towers

13. Cooling Tower Monitoring — Cooling towers shall be subject to the following conditions:

A. The holder of this permit shall execute weekly cooling tower water monitoring using the El Paso Products Company Method of Analysis. This method is described in the TCEQ guidance document entitled "Air Quality Permit Technical Guidance for Chemical Sources - Cooling Towers," dated May, 1997.

B. Instead of the monitoring method required in A of this condition, the holder of this permit may use an air stripping system equivalent to the El Paso Products Company Method of Analysis, provided that he previously obtains written approval from the TCEQ Office of Air, Air Permits Division.

C. The holder of this permit shall perform sampling and other testing as necessary to establish the lbs per hour of VOC being emitted into the atmosphere from the cooling towers associated with this permit. All sampling and testing methods shall be subject to approval of the TCEQ Executive Director prior to their implementation. The VOC concentration (ppmv) in the exhaust from the air stripping testing system or equivalent testing system and the corresponding pounds of strippable VOC/gallon of cooling water shall be reported. These will be used to determine the level (either ppmv or lb/VOC/gal) at which a leak into cooling water will be assumed in the

ongoing monitoring program. Within 30 days after completion of sampling, copies of the test report shall be submitted to the TCEQ Office of Air, Air Permits Division and the TCEQ Corpus Christi Regional Office.

D. The VOC associated with cooling tower water shall be monitored weekly with an approved air stripping system or equivalent. The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of the monitoring and maintenance efforts shall be recorded and such records shall be maintained for a period of two years. The records shall be made available to the TCEQ Executive Director or his designated representative upon request.

E. Instead of the weekly monitoring frequency specified in paragraphs A and D of this special condition, the cooling water can be monitored monthly if 12 consecutive months of data are provided to TCEQ showing no leaks into the cooling water as defined in paragraph C of this special condition. If, after the monthly monitoring frequency has been implemented, two leaks in 12 consecutive months are detected as defined in paragraph C of this special condition, the monitoring frequency will return to a weekly basis until such time that 12 consecutive months of data are provided to again show no leaks.

Ongoing Demonstration of Compliance

14. Ongoing compliance with Special Condition No. 8 and with the MAERT shall be determined for each line by calculation using weekly production rates and weekly sampling and testing of the polymer immediately downstream of the extruder (A) and immediately before the point of final product loading (B). The beverage can test or an equivalent method approved by the TCEQ Austin Compliance Support Division shall be used to determine VOC.

    Polymer production rates and product degassing monitoring records shall be maintained at the plant site for at least five years from the date they are made and made available upon request to TCEQ personnel. These records shall include (but are not limited to):

    A. Date and time of sampling.

    B. Actual plant production rate at the time of sampling and the weekly average production rate.

    C. Product number and melt index.

    D. Measured pounds of total VOC per million lbs of polymer after the extruder (A) and immediately prior to final product loading (B).

    E. Total VOC emitted to the atmosphere between points A and B during the operating week shall be calculated by (A B) multiplied by the weekly production rate. Calculations shall take into account emissions which are collected and routed to a control device and any changes in product type during the week.

15. The following requirements apply to capture systems for each flare designated as EPNs 1018 and 1067.

    A. If used to control pollutants other than particulate, either:

        (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

        (2) Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

    B. The control device shall not have a bypass.

        or

        If there is a bypass for the control device, comply with either of the following requirements:

        (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

        (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

        A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

    C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Maintenance, Startup, and Shutdown (MSS)

16. This permit authorizes air emissions from the planned MSS activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize and purge to control per Special Condition 17	1018, 1067, PP2-TEMP
All facilities*	Degas facilities to atmosphere after control per Special Condition 17	PP2-MAINT
All facilities*	Fill and/or vent to control during startup and shutdown	1018, 1067, PP2-TEMP
Vessels	Vent waste gas to control during maintenance	1018, 1067, PP2-TEMP
MTR (Hydrocarbon Recovery Unit)	Vent waste gas to flare during maintenance	1018, 1067
All	Attachment A activities	1018, 1067, PP2-TEMP, PP2-MAINT
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	PP2-MAINT

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and control devices meeting the requirements of Special Condition 19. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility.

Emissions from activities listed on Attachment A may be considered to be equal to the potential to emit represented in the permit amendment application, PI-1 dated January 3, 2008, and updated in subsequent application submittals. The estimated emissions from these activities must be revalidated annually. This revalidation shall consist of verifying the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

A. The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

B. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

C. the type of planned MSS activity and the reason for the planned activity;

D. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

E. the date and time of the MSS activity and its duration;

F. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

17. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements.

A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.

B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated

emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

E. After degassing in accordance with Special Condition 17.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.

(1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of ii below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 16. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except as noted in Attachment A, all instances of venting directly to atmosphere per Special Condition 17.F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities.

18. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

    A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

        (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

        (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

    B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

        (1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

        (2) The tube is used in accordance with the manufacturer's guidelines.

        (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

            measured contaminant concentration (ppmv) < release concentration.

            Where the release concentration is:

            10,000*mole fraction of the total air contaminants present that can be detected by the tube.

            The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

        Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

    C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

        (1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

        (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no

lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.

D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

(1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.

(2) The sample bag shall be connected directly to the sample valve.

(3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.

(4) The two valves shall then be closed to seal the sample in the bag.

(5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.

(6) This process is repeated to collect additional samples.

(7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

19. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

(1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

(2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

(3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 18.A or B.

(4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.

20. Vents must be directed to a flare operating in accordance with Special Condition 23 during maintenance on the membrane transfer reactor (MTR).

21. Bag filter maintenance shall be performed in a manner to minimize particulate matter emissions and minimize down time.

22. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

23. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified and authorized in this condition. The use of any other types of devices to control emissions from MSS activities must be authorized in accordance with 30 TAC Chapter 116.

A. Carbon Adsorption System (CAS).

(1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

(2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

(a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

(b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 18.A or B.

(4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the period specified in part (3) below. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance that may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 18.A are also acceptable for this documentation.

(3) The engine shall be operated and monitored as specified below.

(a) If the engine is operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller, documentation for each AFR controller that the manufacturer's or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation. The engine must have been stack tested within the past 12 months in accordance with part ii of this condition.

The test period may be extended to 24 months if the engine exhaust is sampled once an hour when waste gas is directed to the engine using a detector meeting the requirements of Special Condition 18.A. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system

downstream of the engine. The concentrations shall be recorded and the MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background.

(b) If an oxygen sensor-based AFR controller is not used, the engine exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the engine. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 18.A. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. The engine must have been stack tested within the past 24 months in accordance with part ii of this condition.

D. The plant flare system (EPNs 1067 and 1018).

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 18.A or B.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

24. The capture systems for the flares shall not have a bypass unless:

A. A flow indicator that records and verifies zero flow at least once every fifteen vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

B. Inspect the valves that prevent flow out the bypass once a month, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit. If any of the above inspections is not

satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above.

25. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit application, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded.

Dated: May 28, 2013

Permit 91780 and PSDTX1240

Attachment A

Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NO_x	CO	PM
Blowers	X	X	X	
Repair/replace baghouses/bag filters*	X			X
Catalyst charging*	X			
Instrument/analyzer calibration/repair, sight glass cleaning/repair*	X	X	X	
Water draining*	X			
Material conveying*	X			X
Open container,* routine quality,* and closed system sampling	X	X	X	X
Activities documented as having emissions <0.1 lb*	X			

* - These activities are not subject to the requirements of Special Condition 16.

Dated: November 30, 2012

Permit 91780 and PSDTX1240

Attachment B

Routine Maintenance Activities

Dryer vents

Heat exchangers, relief valves, filters/strainers, pumps, and compressors

Piping, tubing, and component degassing

Repair/replacement that may be isolated so that the process volume to be emptied and degassed is less than 200 cubic feet.

Dated: November 30, 2012

Permit 91780 and PSDTX1240

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 16.

Vessel and reactor repair and maintenance

Plant startup, shutdown, and turnaround

Maintenance on the MTR systems and vessels during plant operation

Activities not listed on Attachments A or B

Date: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 91780 and PSDTX1240

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1018/1067	Olefins I and II Flares Elevated Flares (6)	CO	14.31	18.03
		CO MSS	619.56	10.85
		NO_x	2.81	3.54
		NO_x MSS	85.79	1.50
		VOC	10.39	6.22
		VOC MSS	380.75	16.27
		SO_2	0.02	0.03
1018/1067	Olefins I and II Flares Elevated Flares (9)	CO	48.04	2.74
		NO_x	6.65	0.38
		VOC	68.40	3.87
D-407	Peroxide Drum	VOC	0.01	0.01
F-400	Vacuum Cleaner Bag Filter	PM	0.03	0.11
F-402	Masterbatch Vent Bag Filter	PM	0.02	0.09
		VOC	0.02	0.06
F-403	Off Pellet Vent Bag Filter	PM	0.49	1.95
F-987	Railcar Vacuum Cleaning System	PM	0.02	0.07
PP2-CT	Cooling Tower	VOC	1.32	5.77
PP2-FUG	Fugitives, PP-2 Unit (5)	VOC	6.70	29.23

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PP2-T1	Downstream Pellet Handling PP-2, Train No. 1 (7)	VOC	6.37	5.60
PP2-T2	Downstream Pellet Handling PP-2, Train No. 2 (8)	VOC	6.37	5.60
1F-404	Additive Hopper Vent Bag Filters	PM	0.02	0.02
1F-405	Vent Bag Filter, Train No. 1	PM	0.12	0.48
		VOC	0.74	3.23
1F-406B	Vent Hopper Sock	PM	0.01	0.04
1F-501	Blending Silos Bag Filter, Train No. 1	PM	0.49	1.95
1F-982	Elutriator Bag Filter, Train No. 1	PM	0.98	3.89
1F-985	Railcar Bag Filter Train No. 1	PM	0.49	1.95
1S-404	Dryer Train No. 1	PM	0.51	1.99
1S-405	Classifier	PM	0.04	0.18
2F-405	Vent Bag Filter, Train No. 2	PM	0.12	0.48
		VOC	0.74	3.23
2F-406B	Vent Hopper Sock	PM	0.01	0.04
2F-501	Blending Silos Bag Filter, Train No. 2	PM	0.49	1.95
2F-982	Elutriator Bag Filter, Train No. 2	PM	0.98	3.89
2F-985	Railcar Bag Filter Train No. 2	PM	0.49	1.95
2S-404	Dryer Train No. 2	PM	0.51	1.99
2S-405	Classifier	PM	0.04	0.18

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Maintenance, Startup, and Shutdown (MSS)				
PP2-MAINT	MSS to Atmosphere	VOC	99.12	2.85
		PM	3.93	0.23

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U - inorganic compounds (unspeciated)
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) PP II vents shall be rerouted to one flare or the other.
(7) Total VOC emissions from the following emissions points F-403, 1F-406B, 1F-501, 1F-982, 1F-985, 1S-404 and 1S-405.
(8) Total VOC emissions from the following emissions points F-403, 2F-406B, 2F-501, 2F-982, 2F-985, 2S-404 and 2S-405.
(9) Emissions associated with product grade transitions.

Date: November 30, 2012