

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

December 2, 2010

MR CARL E EDLUND PE
DIRECTOR MULTIMEDIA PLANNING AND PERMITTING DIVISION
US ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVE STE 1200
DALLAS TX 75202-5766

Re: Executive Director's Response to EPA Objection
Minor Revision
Permit Number: O2032
Union Carbide Corporation
L.P. Polyethylene and Catalyst Units
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781

Dear Mr. Edlund:

On November 25, 2009, the U.S. Environmental Protection Agency (EPA) Region 6 Office signed a letter identifying objections to the issuance of the proposed federal operating permit for the above-referenced site. In accordance with Title 30 Texas Administrative Code § 122.350 (30 TAC § 122.350), the Texas Commission on Environmental Quality (TCEQ) may not issue the permit until the objections are resolved. In addition, the letter identifies certain additional concerns. The TCEQ understands that the additional concerns are provided for information only and do not need to be resolved in order to issue the permit.

The TCEQ has completed the technical review of your objections and offers the enclosed responses to facilitate resolution of the objections. In addition, the attached responses to the objections describe the changes, if applicable, that have been made to the revised proposed permit and supporting statement of basis (SOB). The revised proposed permit and SOB are attached for your review.

Mr. Carl E. Edlund, P.E.
Page 2
December 2, 2010

Consistent with Title 30 TAC §122.350, please provide an indication of your acceptance or assessment of the responses and resolutions to the objections as soon as possible. After receipt of your acceptance to the responses and resolutions to the objections, TCEQ will issue the proposed permit. Thank you for your cooperation in this matter. Please contact Mr. Alfonzie "Al" Stepney, III, at (512) 239-1830 if you have any questions concerning this matter.

Sincerely,



Steve Hagle, P.E., Director
Air Permits Division
Office of Permitting and Registration
Texas Commission on Environmental Quality

SH/AS/dw

cc: Mr. Tony Motl, EHS Delivery Specialist, Union Carbide Corporation, Port Lavaca
Mr. Ted Goris, Seadrift Operations Responsible Care Leader, Union Carbide Corporation,
Port Lavaca
Mr. Brad Fedorchak, Vice President, Union Carbide Corporation
Air Section Manager, Region 14 - Corpus Christi

Enclosures: TCEQ Executive Director's Response to EPA Objection
Proposed Permit
Statement of Basis

Project Number: 13940

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

The Texas Commission on Environmental Quality (TCEQ) Executive Director (ED) provides this Response to EPA's Objection to the minor revision of the Federal Operating Permit (FOP) for Union Carbide Corporation, L.P. Polyethylene and Catalyst Units, Permit No. O2032, Calhoun County, Texas.

BACKGROUND

Procedural Background

The Texas Operating Permit Program requires that owners and operators of sites subject to 30 Tex. Admin. Code (TAC) Chapter 122 obtain a FOP that contains all applicable requirements to facilitate compliance and improve enforcement. The FOP does not authorize construction or modifications to facilities, and it does not authorize emission increases. To construct or modify a facility, the responsible party must have the appropriate new source review authorization. If the site is subject to 30 TAC Chapter 122, the owner or operator must submit a timely FOP application for the site and ultimately must obtain the FOP to operate. Union Carbide Corporation applied to the TCEQ for a minor revision of the FOP for the L.P. Polyethylene and Catalyst Units located in Seadrift, Calhoun County on June 30, 2009, and notice was published on October 13, 2009 on the TCEQ Website. The public comment period ended on November 12, 2009. During the concurrent EPA review period, TCEQ received an objection to the permit from EPA on November 25, 2009.

In accordance with state and federal rules, the permit minor revision may not be issued until TCEQ resolves EPA's objections.

Description of Site

Union Carbide Corporation owns and operates the L.P. Polyethylene and Catalyst Units, located at 7501 State Highway 185 North in Seadrift, Calhoun County, Texas 77983. A variety of organic chemical products are manufactured within the Seadrift facility. Most of these products, such as polyethylene, polypropylene, ethylene oxide, and ethylene glycol are used as raw material for manufacturing a wide variety of consumer goods.

The following responses follow the references used in EPA's objection letter.

EPA OBJECTION 1: EPA objected to incorporation by reference of PSDTX118M4, amended February 11, 2004. The *New Source Review Authorization References* table in the draft Title V permit PSDTX118M4, by reference. The EPA addressed incorporation by reference in *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program* dated March 5, 1996 (*White Paper 2*). As EPA explained in *White Paper 2*, incorporation by reference may be useful in many instances; though it is important to exercise care to balance the use of incorporation by reference with the obligation to issue permits that are clear and meaningful to all affected parties, including those who must comply with or enforce their conditions. *Id.* At 34-38 See, also, *In the Matter of Tesoro Refining and Marketing*, Petition No IX-2004-6 at 8 (March 15, 2005)(*Tesoro Order*). As EPA noted in the *Tesoro Order* EPA's expectations of

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 2

what requirements may be referenced and the necessary level of detail are guided by Sections 504(a) and (c) of the Act and corresponding provisions at 40 CFR §§ 70.6(a)(1) and (3). *Id.* Generally, EPA expects that Title V permits will explicitly state all emission limitations and operational requirements for all applicable emission units at a facility. *Id.* EPA notes that TCEQ's use of incorporation by reference for emissions limitations from minor NSR permits and permits by rule is acceptable. *See* 66 Fed. Reg. 63318, 63325 (Dec. 6, 2001); *see also, Public Citizen v. EPA*, 343 F.3d 449, at 460-61 (5th Cir. 2003) (upholding EPA's approval of TCEQ's use of incorporation by reference for emissions limitations from minor NSR permits and permits by rule). In approving Texas' limited use of incorporation by reference of emissions limitations from minor NSR permits and permits by rule, EPA balanced the streamlining benefits of incorporation by reference against the value of a more detailed Title V permit and found Texas' approach for minor NSR permits and permits by rule acceptable. *See Public Citizen*, 343 F.3d 449, at 460-61. EPA's decision approving this use of incorporation by reference in Texas' program was limited to and specific to minor NSR permits and permits by rule in Texas. The EPA noted the unique challenge Texas faces in integrating requirements from these permits into Title V permits. *See* 66 Fed. Reg. at 63,326; 60 Fed. Reg. at 30,039; 59 Fed. Reg. 44572 and 44574. The EPA has not approved TCEQ's use of incorporation by reference of emissions limitations for other requirements. *See In the Matter of Premcor Refining Group, Inc.*, Petition No. VI-2007-02 at 5 and *In the Matter of CITGO Refining and Chemicals Co.*, Petition No. VI-2007-01 at 11. Pursuant to 40 CFR § 70.8(c)(1), EPA objected to the issuance of the Title V permit because it: 1) incorporates by reference PSDTX118M4; and 2) fails to include emission limitations and standards as necessary to assure compliance with all applicable requirements. *See* 40 CFR § 70.6(a)(1).

TCEQ RESPONSE 1: In response to EPA's objection, the ED has revised FOP No. O2032 to include, in a new Appendix B of the permit, copies of NSR Permit Nos. 1567, 18773, 3639, 6141A, 6361, and PSDTX118M4 and their corresponding terms and conditions, and emission limitations. With regard to IBR of major NSR, the ED respectfully disagrees with EPA's interpretation of its approval of Texas's operating permit program on this issue. The ED recognizes that respective agency staff are actively involved in continuing, extensive discussions on how to resolve this issue; namely, how much detail of the underlying major NSR authorization should be reiterated in the face of the Title V permit. The federally approved operating permit program for Texas has allowed for applicable requirements to be incorporated by reference into the FOP since 1996. *See* Final Interim Approval, 61 Fed. Reg. 32693, June 25, 1996; Final Full Approval, 66 Fed. Reg. 63318, December 6, 2001; and Final Approval of Resolution of Deficiency, 70 Fed. Reg. 16134, March 30, 2005. Title 30 TAC §122.142 states that the operating permit shall contain the specific regulatory citations in each applicable requirement identifying the emission limitations and standards. Additionally, EPA discussed the use of incorporation by reference in the preamble to the final Part 70 rule, discussing the requirements of § 70.6, Permit Content, stating:

Section 70.6(a)(1)(i) requires that the permit reference the authority for each term and condition of the permit. Including in the permit legal citations to provisions of the Act is critical in

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 3

defining the scope of the permit shield, since the permit shield, if granted, extends to the provisions of the Act included in the permit. Including the legal citations in the permit will also ensure that the permittee, the permitting authority, EPA, and the public all have a common understanding of the applicable requirements included in the permit. *This requirement is satisfied by citation to the State regulations or statutes which make up the SIP or implement a delegated program. See 57 Fed. Reg. 32250, 32275 July 21, 1992, emphasis added.*

In comments on the proposed final interim approval of the operating permit program, in 1995, the commission (then-TNRCC) proposed to include a standardized permit provision that incorporated by reference all preconstruction authorizations, both major and minor, to resolve the EPA identified deficiency of Texas' failure to include minor NSR as an applicable requirement. In the June 25, 1996 Final Interim Approval, EPA directed, "the State must be quite clear in any standardized permit provision that all of its *major 'preconstruction authorizations* including permits, standard permits, flexible permit, special permits, or special exemptions' are incorporated by reference into the operating permit *as if fully set forth therein* and therefore enforceable under regulation XII (the Texas Operating Permit Regulation) as well as regulation VI (the Texas preconstruction permit regulation)." (61 Fed. Reg. at 32695, emphasis added.) Given this explicit direction in EPA's 1996 final interim approval of the Texas program, TCEQ understood that the standardized permit provision for preconstruction authorizations incorporated all NSR authorizations by reference, including major NSR

As a result of Texas' initial exclusion of minor NSR as an applicable requirement of the Texas Operating Permit program, and EPA's final interim approval of a program that provided for a phase-in of minor NSR requirements using incorporation by reference, EPA was sued by various environmental groups. See *Public Citizen, Inc. v. U.S. E.P.A.*, 343 F.3d 449 (5th Cir. 2003). The petitioner's brief raised several issues, including the use of incorporation by reference of minor NSR, because the exclusion of minor NSR as an applicable requirement was a program deficiency identified by EPA. The petitioner's brief acknowledges that Texas' Operating Permit program incorporates all preconstruction authorizations by reference, through use of a table entitled "Preconstruction Authorization References". The Petitioner's brief includes an example of this table, which clearly contains sections for Prevention of Significant Deterioration (PSD), nonattainment (NA), 30 TAC Chapter 116 Permits, Special Permits and Other Authorizations, and Permits by Rule under 30 TAC Chapter 106. See Brief of Petitioners, p. 30. The brief goes on to discuss the sample permit, Permit No. O-00108, which documents "six different minor NSR authorizations and one PSD permit" requiring one to look at each of the underlying permits in addition to the Title V permit. The Department of Justice (DOJ), in its reply brief for EPA, responded to this allegation of improper use of IBR in the context of the specific allegation - whether "EPA reasonably determined that Texas corrected the interim deficiency related to minor new source review", answering unequivocally "yes". "Nothing in the statute or regulations prohibits incorporation of applicable requirements by reference. The Title V and Part 70 provisions addressing the content of Title V permits specify what Title V permits 'shall

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 4

include,' but do not speak to how the enumerated items must be included." See, Brief of Respondents, pp. 25-26. The Court did not distinguish between minor and major NSR when concluding that IBR is permissible under both the CAA and Part 70.

Thus, it is the ED's position that incorporation by reference of both major and minor NSR permits is acceptable and was fully approved by EPA. However, given EPA's differing opinion, as reflected in the Premcor and CITGO orders, this objection, and the June 10, 2010 letter from EPA Region VI regarding this issue, the ED has revised FOP No. O2032 to include, in a new Appendix B of the permit, copies of NSR Permit Nos. 1537, 18773, 3639, 6141A, 6361, and PSDTX118M4 and their corresponding terms and conditions, and emission limitations, which was initially suggested by EPA as adequate to resolve this objection. Inclusion of the major NSR permits as an appendix should address EPA's objection and ensure that the Title V permit is clear and meaningful to all affected parties. The ED will continue efforts with EPA on how to resolve IBR of major NSR on a broader, programmatic basis.

EPA OBJECTION 2: The *New Source Review (NSR) Authorization References* table in the draft Title V permit incorporates by reference Permit No. 18773 and 6141A. Available information indicates that Union Carbide Corporation forwarded a Form PI-E to TCEQ (Notification of Changes to Qualified Facilities). Based upon TCEQ's review of the information, TCEQ had no objection to the proposed changes. These changes affect Permit Nos. 18773, 6141A, and PSDTX118M4, under the Texas Qualified Facilities Program. This program authorizes facilities to become "qualified" to net out of NSR SIP Permitting requirements under 30 TAC § 116.118 (pre-change qualification). To date EPA has not approved the Texas Qualified Facilities Program revisions into the Texas SIP, pursuant to Section 110 of the federal Clean Air Act (CAA), 42 U.S.C. § 7410. Therefore, pursuant to 40 CFR § 70.8(c)(1), EPA must object to the issuance of this Title V permit because physical or operational changes made under the Qualified Facility rule cannot be determined to be in compliance with the applicable requirements of the Texas SIP. The failure to have submitted information necessary to make this determination constitutes an additional basis for this objection, pursuant to 40 CFR § 70.8(c)(3)(ii). In response to this objection, TCEQ must revise the draft Title V permit to include a condition that specifically requires the source to prepare and submit to TCEQ a written analysis of any future change / modification to ensure that minor and/or major new source review requirements under the federally-approved Texas SIP have not been triggered.

TCEQ RESPONSE 2: As a preliminary matter, the resolution of EPA concerns regarding qualified facility changes is a common objective for both TCEQ and the EPA. The EPA concerns discussed below regarding the use of the Title V permitting process to challenge qualified facility changes on a case-by-case basis does not diminish the importance of reaching an expeditious resolution to this NSR issue. The ED recognizes that the Qualified Facility rules, located in 30 TAC Chapter 116, §§ 116.116(e), 116.117 and 116.118 and submitted to EPA initially in 1996 and after re-adoption in 1998, have not been approved into the Texas SIP, and were specifically disapproved by EPA effective May 14, 2010. See 75 Fed. Reg. 19468

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 5

(April 14, 2010).¹ The commission proposed rule changes to address concerns noted by EPA regarding the approvability of the Qualified Facilities program. See 35 Tex. Reg. 2978 (April 16, 2010). The commission adopted these rules on September 15, 2010 and is submitting them to EPA for approval. See 35 Tex. Reg. 8944 (October 1, 2010). However, the Texas federal operating permit (FOP) program is EPA-approved. TCEQ reviews applications and issues FOPs according to EPA-approved program rules found in 30 Texas Administrative Code (TAC), Chapter 122. The Texas Operating Permit Program was granted full approval on December 6, 2001 (66 FR 63318), and subsequent rule changes were approved on March 30, 2005 (70 FR 161634). The application procedures, found in 30 TAC § 122.132(a) require an applicant to provide any information required by the ED to determine applicability of, or to codify any "applicable requirement." In order for the ED to issue an FOP, the permit must contain all applicable requirements for each emission unit (30 TAC § 122.142). "Applicable requirement" is specifically defined in 30 TAC § 122.10(2)(h) to include all requirements of 30 TAC Chapter 116 and any term and condition of any preconstruction permit. As a Chapter 116 authorization mechanism, Qualified Facility changes are applicable requirements, and shall be included in applications and Texas issued FOPs, in compliance with Texas' approved program. According to the EPA review procedures in 30 TAC § 122.350(c), EPA may only object to issuance of any proposed permit which is not in compliance with the applicable requirements or requirements of Chapter 122. Therefore, this objection is not valid under the program EPA has approved in Texas because the applicant provided information as to the applicable Chapter 116 requirements, including Qualified Facility changes, and the ED has included these requirements in the draft FOP. EPA objections to individual permits issued under an EPA approved operating permit program are not appropriate for concerns that relate to approved program elements.

EPA's objection notes that the Qualified Facility rules allow facilities to become "qualified" to net out of NSR SIP Permitting requirements under 30 TAC § 116.118 (pre-change qualification). However, any change made at a qualified facility must comply with PSD and nonattainment NSR, [§ 116.117(a)(4)], must be reported annually to the commission, [§ 116.117(b)], and may be incorporated into the minor NSR permit at amendment or renewal [§ 116.117(c)]. The Qualified Facilities rules in Chapter 116 provide that changes may be made to existing facilities without triggering the statutory definition of modification of existing facility found in Texas Clean Air Act (TCAA), Texas Health and Safety Code (THSC), § 382.003(9) if either of the following conditions are met: the facility has received a preconstruction permit or permit amendment no earlier than 120 months before the change will occur, or regardless of whether the facility has received a preconstruction permit or permit amendment, uses control technology that

¹ The TCEQ has filed a Petition for Review of EPA's final action with the U.S. Court of Appeals for the 5th Circuit. As noted in the TCEQ's April 16, 2010 proposed rulemaking, "[t]he commission has always administered the qualified facility program as a minor NSR program and has not allowed its applicability for changes requiring major NSR. This is consistent with the requirements of the enabling statute in THSC, § 382.0512 which states that 'nothing in this section shall be construed to limit the application of otherwise enforceable state or federal requirements, nor shall this section be construed to limit the commission's powers of enforcement under this chapter.' The program does not, and has not, superseded or negated federal requirements." See 35 Tex. Reg. 2979, April 16, 2010.

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 6

is at least as effective as the BACT that the commission required or would have required for a facility of the same class or type as a condition of issuing a permit or permit amendment 120 months before the change will occur. Facilities that meet these requirements are designated as "qualified facilities." The rules do not allow construction of a new facility, nor can the change result in a net increase in allowable emissions of any air contaminant, or allow the emissions of an air contaminant category that did not previously exist at the facility undergoing the change. The use of the terminology in the phrase "net increase in allowable emissions of any air contaminant" in §116.116(e), Changes to Qualified Facilities, should not be confused with federal terminology, where "net increase" has specific meaning as it relates to federal (major) NSR applicability involving comparison of actual emissions. The qualified facility program compares allowable emissions at one facility to allowable emissions of the same type at another facility at a single site. Prior to making this comparison, the owner or operator must determine if a project requires federal nonattainment (NA) or prevention of significant deterioration (PSD) review. This is accomplished by comparing a facility's baseline actual emission rate to the planned emission rate resulting from the change using either proposed actual emissions or the facility's potential to emit (PTE), to a significance level for the pollutant involved. If the projected emissions increase equals or exceeds the significance level, the facility owner or operator must compute the result of all emissions increases and decreases at the facility according to the definition of contemporaneous period as defined in § 116.12, Nonattainment and Prevention of Significant Deterioration Review Definitions, to determine the net emission increase. If this net increase equals or exceeds a major modification threshold, then federal major NSR is triggered, and the proposed change cannot be authorized using a qualified facility claim. The federal major NSR permitting program contemplates increases in both actual and allowable emissions through the approval of new permits. The qualified facilities program explicitly excludes the inclusion of new facilities or any increases in allowable emissions. Such changes must be accomplished through the use of another approved permitting program. The qualified facilities program is designed to allow minor changes at individual facilities within a single site by trading allowable emissions between facilities. A qualified facilities change results in no change to total allowable emissions that are authorized at a single site. Additionally, any change that moves emissions closer to a site boundary is carefully evaluated to ensure no adverse effects.

The ED disagrees with the allegation that the failure of the applicant to have submitted information necessary to make a determination of whether they were in compliance with the SIP constitutes an additional basis for this objection, pursuant to 40 CFR § 70.8(c)(3)(ii). Section 70.8(c)(3)(ii) is premised on the *permitting authority* not "submitting any information necessary [for EPA] to review adequately the proposed permit." The ED has provided all information requested by EPA, when asked, including NSR permits and other supporting information. Additionally, the Qualified Facility rules, and subsequent authorizations, which may be incorporated into SIP approved minor NSR permits at amendment or renewal, pursuant to 30 TAC § 116.117(c) clearly do not allow sources to utilize the Qualified Facility authorization mechanism to circumvent major NSR permitting requirements. Specifically, 30 TAC Chapter 116 requires that all new major sources or major modifications be authorized through nonattainment or PSD permitting under Subchapter B, Divisions 5 and 6, and reiterates

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 7

that documentation must be kept for changes at Qualified Facilities that demonstrates that the change meets the requirements of Subchapter B, Divisions 5 and 6. The commission has made this position clear since proposing and adopting rules to implement the legislative changes resulting in the flexibility available to qualified facilities. See the adoption of the qualified facility rules, 21 Tex Reg. 1569, February 27, 1996; TNRCC Guidance Document "Modification of Existing Facilities Under Senate Bill 1126" dated April 1996, RG-223; and comments submitted by the TCEQ regarding EPA's proposed disapproval of the qualified facility rules, Docket ID No. EPA-R06-OAR-2005-TX-0025. EPA's delay in acting on the Qualified Facility rules, the approval of the state's federal operating permit program and confusion regarding whether the approved federal operating permit program provided federal enforceability for Qualified Facility changes, resulted in a very long period of detrimental reliance on this permit mechanism by regulated entities and TCEQ.

It is not appropriate, necessary or legally required under either 40 CFR Part 70 or the EPA approved federal operating permit program in Texas to require a condition in the operating permit to require a source to prepare and submit a written analysis of any future change/modification to ensure that minor and/or major NSR requirements under the SIP have not been triggered. The federally approved SIP already requires this analysis as part of any future NSR review. See 30 TAC Chapter 116, Subchapter B, Divisions 5 and 6. Minor NSR applicability requirements are adequately specified in the permit and commission rules governing NSR permits; thus, the applicant is currently subject to the requirements to demonstrate, upon any future change, when minor or major NSR requirements will apply. Again, with regard to qualified facilities, the TCEQ will continue its dialogue with EPA to achieve the goal of a SIP-approved minor NSR program that includes the flexibility provided for qualified facilities by the Texas Legislature.

EPA OBJECTION 3: EPA objected to the issuance of the Title V permit since recordkeeping requirements of NSR Permit Numbers 18773, 1567, 3639, 6361, and 8442 were not in compliance with the requirements of 40 CFR § 70.6(a)(3)(ii)(B). Under the *General Terms and Conditions* provision of the draft Title V permit, reference is made to 30 TAC § 122.144 of the Texas FOP program which requires records be kept for five years; however, Special Condition 15 of Qualified Facility permit Number 18773 (altered July 13, 2009) only requires records be kept for three years. Also, Special Conditions 19 and 20 of Permit Number 1567 (altered July 18, 2008), Special Condition 2 of Permit Number 3639 (amended and renewed May 16, 2006), and Special Condition 11 of Permit 6361 (amended and renewed November 23, 2005) only requires records to be kept for two years. The EPA states these conditions are inconsistent with the five-year recordkeeping requirements of 40 CFR § 70.6(a)(3)(ii)(B) and cannot be carried forward into the Title V permit. EPA also objected to the issuance of the Title V permit since the recordkeeping requirements of Qualified Facility Permit 8442 are not in compliance with 70.6(a)(3)(ii)(B).

TCEQ RESPONSE 3: The TCEQ requires five-year recordkeeping for all FOPs. Pursuant to 30 TAC § 122.144(1), all records of required monitoring data and other permit support information must be kept for a period of five years from the date of the monitoring report,

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 8

sample, or application unless a longer data retention period is specified in an applicable requirement. This is consistent with the recordkeeping requirements of 40 CFR § 70.6(a)(3)(ii)(B). The requirements of 30 TAC § 122.144(1) have been and will continue to be incorporated for all FOPs through the general terms and conditions of the FOP, which specifically require "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), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions)." These requirements were (and still are) also reiterated on the cover page of the FOP.

As all terms and conditions of preconstruction authorizations issued under 30 TAC Chapter 106, Permits by Rule, and 30 TAC Chapter 116, NSR are applicable requirements and enforceable under the FOP, the five-year record retention requirement of 30 TAC § 122.144(1) supersedes any less stringent data retention schedule that may be specified in a particular permit by rule or NSR permit. To further clarify the five-year recordkeeping retention schedule for the FOP, the following text will be added to the General Terms and Conditions of the FOP.

"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 NSR Authorization attachment."

EPA OBJECTION 4: EPA objected to the *Special Terms and Conditions* provisions of the draft Title V permit, Condition 3, requiring stationary vents with certain flow rates to comply with identified provisions of 30 TAC Chapter 111 (EPA-approved rules in Texas' SIP) without identification of the specific stationary vents that are subject to those requirements. As such, EPA objected to this condition as failing to meet the requirement of 40 CFR § 70.6(a)(1), since the condition lacks the specificity to ensure the compliance with the applicable requirements associated with those unidentified emission units. In addition, EPA noted that the Statement of Basis document for the draft Title V permit does not provide the legal and factual basis for Condition 3, as required by 40 CFR § 70.7(a)(5). Pursuant to 40 CFR § 70.8(c)(1), EPA objected to the issuance of the Title V permit since Condition 3 was not in compliance with the requirements of 40 CFR § 70.8(c)(1) and 70.7(a)(5). In response to this objection, TCEQ must revise Condition 3 of the draft Title V permit to list specific stationary vents that subject to the specified requirements of 30 TAC Chapter 111 and provide an explanation in the Statement of Basis for the legal and factual basis for Condition 3.

TCEQ RESPONSE 4: The EPA has previously supported the practice of not listing emission units in the permit that only have site-wide or "generic" requirements. See *White Paper for Streamlined Development of Part 70 Permit Applications*, July 10, 1995. The ED documented in the draft FOP that the Chapter 111 visible emission requirements for stationary vents were site-wide requirements - applying uniformly to the units or activities at the site. Because the

EXECUTIVE DIRECTOR'S RESPONSE TO EPA OBJECTION

Permit Number O2032

Page 9

applicant indicated in its application that only the Chapter 111 site-wide requirements apply to these stationary vents and other sources, the applicant is not required to list these smaller units individually in the unit summary, and therefore, these emission units did not appear in the applicable requirements summary table in the draft FOP.

With regard to stationary vents, there are three basic opacity requirements in 30 TAC § 111.111 that may apply, depending upon specific applicability criteria. Stationary vents constructed on or before January 31, 1972 must meet the requirements of 30 TAC § 111.111(a)(1)(A), which states that opacity shall not exceed 30% averaged over a six-minute period. Stationary vents constructed after January 31, 1972 must meet the requirements of 30 TAC § 111.111(a)(1)(B), which states that opacity shall not exceed 20% averaged over a six-minute period. Lastly, stationary vents where a total flow rate is greater than or equal to 100,000 actual cubic feet per minute (acfm) may not exceed 15% opacity averaged over a six minute period, unless that source has an installed optical instrument capable of measuring opacity that meets specified requirements, specified in 30 TAC § 111.111(a)(1)(C). Subsection 111.111(b) merely states that any of the emission units subject to section 111.111 (for this permit area, this would include all stationary vents and gas flares) shall not include contributions from uncombined water in determining compliance with this section.

However, the ED does agree that the FOP could be revised to more clearly group stationary vents according to which opacity limit applies. The site does not have any vents constructed prior to January 31, 1972, therefore, no vents are subject to the 30% opacity requirement of 30 TAC § 111.111(a)(1)(A). All other vents at the site are subject to 20% opacity, as noted in the revised Special Condition 3, which is a site-wide term and condition, as allowed in the *White Paper for Streamlined Development of Part 70 Permit Applications*, July 10, 1995.

A determination of the legal and factual basis for Condition 3 was added to the Statement of Basis document for the draft Title V permit and is enclosed.

ADDITIONAL CONCERNS: TCEQ acknowledges the additional concerns EPA has with the L.P. Polyethylene and Catalyst Units FOP and will address these issues as appropriate.

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Union Carbide Corporation

AUTHORIZING THE OPERATION OF

L.P. Polyethylene and Catalyst Units
Industrial Organic Chemicals

LOCATED AT

Calhoun County, Texas

LATITUDE 28° 30' 54" LONGITUDE 096° 46' 18"

Regulated Entity Number: RN102181526

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. Operation 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.: O2032 Issuance Date: March 15, 2005

For The Commission

TABLE OF CONTENTS

Section	Page
GENERAL TERMS AND CONDITIONS	1
SPECIAL TERMS AND CONDITIONS	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting.....	1
Additional Monitoring Requirements	10
New Source Review Authorization Requirements	10
Compliance Requirements	11
Risk Management Plan	12
Protection of Stratospheric Ozone	12
Permit Location.....	12
Permit Shield (30 TAC § 122.148).....	13
ATTACHMENTS	14
Applicable Requirements Summary	15
Additional Monitoring Requirements	34
Permit Shield	38
New Source Review Authorization References	42
APPENDIX A	50
Acronym List	51
APPENDIX B	52
Permits Numbers 1567 and PSDTX118M4.....	53
Permit Numbers 18773 and PSDTX118M4	70
Permit Numbers 3639 and PSDTX118M4	82
Permit Numbers 6141A and PSDTX118M4	90
Permit Numbers 6361A and PSDTX118M4	110

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.
 - E. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) The General Provisions of 30 TAC § 101.372
 - (ii) Discrete Emission Reduction Credit Generation and Certification under 30 TAC § 101.373
 - (iii) Mobile Discrete Emission Reduction Credit Generation and Certification under 30 TAC § 101.374
 - (iv) Discrete Emission Credit Banking and Trading under 30 TAC § 101.378
 - (v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Rules):
- A. Definitions of 30 TAC § 101.1, insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Circumvention under 30 TAC § 101.3
 - C. Sampling under 30 TAC § 101.8, if such action has been requested by the TCEQ
 - D. Sampling Ports under 30 TAC § 101.9, if such action has been requested by the TCEQ
 - E. Emissions Inventory Requirements of 30 TAC § 101.10
 - F. Emission Event Reporting and Recordkeeping Requirements of 30 TAC § 101.201
 - G. Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements of 30 TAC § 101.211

- H. Operational Requirements of 30 TAC § 101.221
 - I. Demonstrations under 30 TAC § 101.222
 - J. Actions to Reduce Excessive Emissions under 30 TAC § 101.223
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, 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 do not emit visible emissions such as vents that emit only VOC or vents that provide passive ventilation, such as plumbing vents; or vents that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) and Compliance Assurance Monitoring, as specified in the attached "Applicable Requirements Summary" and "Additional Monitoring Requirements."
 - 1. An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - 2. For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than three 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) 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. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)

(iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), 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:

1. An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.

2. Records of all observations shall be maintained.

3. Visible emissions observations of air emission sources or enclosed facilities 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 air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. 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.

4. 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)(7) and (a)(7)(A).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) 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. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)

(iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), 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:

1. An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.

2. Records of all observations shall be maintained.

3. Visible emissions observations of sources 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 sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. 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.

4. 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)(8) and (a)(8)(A).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) 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.

D. 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.

- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- F. 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. Permit holder shall comply with the following 30 TAC Chapter 115, Subchapter C requirements:
 - A. For the low vapor pressure VOC unloading operations specified in Division 1: "Loading and Unloading of Volatile Organic Compounds," the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 115.217(b)(2) (relating to Exemptions for Transfer of VOC with a true vapor pressure less than 1.5 psia)
 - (ii) Title 30 TAC § 115.212(b)(2) (relating to Control Requirements)
 - (iii) Title 30 TAC § 115.214(b)(1)(A)(i) and (B) (relating to Inspection Requirements)
 - (iv) Title 30 TAC § 115.215(4) (relating to Approved Test Methods)
 - (v) Title 30 TAC § 115.216(2) and (3)(B) (relating to Monitoring and Recordkeeping Requirements)
 - B. For the VOC unloading operations specified in Division 1: "Loading and Unloading of Volatile Organic Compounds," the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 115.212(b)(2), (3)(B) - (D) (relating to Control Requirements)

- (ii) Title 30 TAC § 115.212(b)(3)(A)(i) or (ii) (relating to Control Requirements)
 - (iii) Title 30 TAC § 115.214(b)(1)(A)(i) - (iii), (B), (C) (relating to Inspection Requirements)
 - (iv) Title 30 TAC § 115.215(1) - (5), (8) - (10) (relating to Approved Test Methods)
 - (v) Title 30 TAC § 115.216(1) - (3) (relating to Monitoring and Recordkeeping Requirements)
6. 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 § 60.9 (relating to Availability of Information)
 - D. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - E. Title 40 CFR § 60.12 (relating to Circumvention)
 - F. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - G. Title 40 CFR § 60.14 (relating to Modification)
 - H. Title 40 CFR § 60.15 (relating to Reconstruction)
 - I. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
7. 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 for Waiver of Compliance)

- 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 § 61.16 (relating to Availability of Information)
 - J. Title 40 CFR § 61.19 (relating to Circumvention)
8. For facilities where total annual benzene quantity from waste is less than 1 megagram 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 § 61.355(a)(5)(i), (ii) (relating to Calculation Procedures)
 - B. Title 40 CFR § 61.356(a) (relating to Recordkeeping)
 - C. Title 40 CFR § 61.356(b), (b)(1) (relating to Recordkeeping)
 - D. Title 40 CFR § 61.357(a), (b) (relating to Reporting Requirements)
9. 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

10. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Additional Monitoring Requirements" 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 owner or operator 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.

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.

Compliance Requirements

13. 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.
14. Use of Discrete Emission Credits to Comply with Applicable Requirements:
- A. Unless other wise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

- (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC §§ 101.372(h) and 122

Risk Management Plan

15. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the owner or operator shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The owner or operator 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

16. 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 shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs or refrigerant removal are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

17. 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)

18. 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 Summary15

Applicable Requirements Summary21

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
GRP-VNT1	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1007, 1009, 1043, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1127, 1143D, 1152A, 1152B, 1161, 230, 248, 351, 436, 441, 468, 469, 470, 483, 484, 485, 488, 489, 490, 491, 492, 493, 494, 495, 496, 707, 771, A-227, A-233	N/A	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
GRP-VNT2	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1044, 1045, 1046, 1047, 1048, 1052, 1053, 191, 192, 193, 194, 196, 197, 198, 199, 201, 202, 203, 204, 205, 206, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399,	N/A	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
		400, 479, 500, 501, 504, 505, 506, 507, 508, 509, 591, 594, 720, 721, 722, 723, 724, 772			
VENT1100	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VENT1100	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF- BATCH	40 CFR Part 63, Subpart FFFF	STREAM GROUP BATCH = Stream is a batch process vent stream determined to be Group1.
VENT1100	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF- STREAM	40 CFR Part 63, Subpart FFFF	STREAM GROUP CPV = Continuous vent stream is a Group 1 stream or is a combined vent stream containing a Group 1 continuous process vent stream and not containing a Group 1 batch process vent stream.
VENT246	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VENT246	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
VENT705	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	R5121	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
VENT705	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
1100	FLARES	N/A	R1111	30 TAC Chapter 111,	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
				Visible Emissions	
1100	FLARES	N/A	63A- AIRASST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Air assisted
1100	FLARES	N/A	63A- NOASST	40 CFR Part 63, Subpart A	FLARE ASSIST TYPE = Non-assisted, FLARE EXIT VELOCITY = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
246	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
705	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
705	FLARES	N/A	60A-1	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = AIR- ASSISTED
705	FLARES	N/A	60A-2	40 CFR Part 60, Subpart A	FLARE ASSIST TYPE = NON- ASSISTED
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing attributes.
PRECLOAD	LOADING/ UNLOADING OPERATIONS	N/A	R5211	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
1100	MISCELLANEOUS UNITS	N/A	63FFFF- BATCH	40 CFR Part 63, Subpart FFFF	STREAM GROUP BATCH = Stream is a batch process vent stream determined to be Group 1.
1100	MISCELLANEOUS UNITS	N/A	63FFFF- STREAM	40 CFR Part 63, Subpart FFFF	STREAM GROUP CPV = Continuous vent stream is a Group 1 stream or is a combined vent stream containing a Group 1 continuous process vent stream and not containing a Group 1 batch process vent stream.
246	MISCELLANEOUS	N/A	63FFFF	40 CFR Part 63, Subpart	No changing requirements.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	UNITS			FFFF	
705	MISCELLANEOUS UNITS	N/A	63FFFF	40 CFR Part 63, Subpart FFFF	No changing requirements.
PROFINSHG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%
PROFINSHG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	WEIGHT PERCENT TOC = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10%
PROMATRCV	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS
PROMATRCV	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS
PROMATRVG1	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS
PROMATRVG1	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS
PROMATRVG2	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS
PROMATRVG2	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS, 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%
PROREACTG3	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-3	40 CFR Part 60, Subpart DDD	PROCESS EMISSIONS = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS, 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%
PRORMC22-2	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PRORMHEXA	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PROSTOREG3	POLYMER	N/A	N/A	40 CFR Part 60, Subpart	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	MANUFACTURING PROCESSES			DDD	
530	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK2	STORAGE TANKS/ VESSELS	C-3520	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK3	STORAGE TANKS/VESSELS	C-3084, C-3086, C-3091, C-3092	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK4	STORAGE TANKS/ VESSELS	LP1RCIC5TK, LP1RIC51DT, LP1RRC5TK, LP1RRC6TK	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
GRP-TK5	STORAGE TANKS/ VESSELS	LP1RC4BULT, LP1RC6BULT	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
LP1RRICATK	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
LP1RTFT2TK	STORAGE TANKS/ VESSELS	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
GRP-VNT1	EP	N/A	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
GRP-VNT2	EP	N/A	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
GRP-VNT2	EP	N/A	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) [G]§ 115.122(a)(4)	A vent gas stream having a combined weight of the VOC or classes of compounds specified in §115.121(c)(1)(B) - (C) of this title equal to or less than 100 pounds (45.4 kg) in any continuous 24-hour period are exempt from the requirements of §115.121(c)(1).	§ 115.126 § 115.126(3)(B) § 115.126(4)	§ 115.126 § 115.126(3)(B) § 115.126(4)	None
VENT1100	EP	N/A	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B) § 60.18	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)	§ 115.126 § 115.126(2)	None
VENT1100	EU	63FFFF-BATCH	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2460(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
VENT1100	EU	63FFFF-	112(B)	40 CFR Part 63, Subpart	§ 63.2455(a)	The permit holder shall	The permit holder shall	The permit holder shall	The permit holder shall

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
		STREAM	HAPS	FFFF	The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
VENT246	EP	N/A	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B) § 60.18	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)	§ 115.126 § 115.126(2)	None
VENT246	EU	63FFFF-STREAM	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
VENT705	EP	N/A	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(c)(1) § 115.122(c)(1) § 115.122(c)(1)(B) § 60.18	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)	§ 115.126 § 115.126(2)	None
VENT705	EU	63FFFF-STREAM	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
1100	EU	R1111	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	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
						emissions as provided in §101.11(a).			
1100	CD	63A-AIRASST	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)(8)	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)	None	None
1100	CD	63A-NOASST	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
246	EU	R1111	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
705	EU	R1111	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
705	CD	60A-1	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
705	CD	60A-2	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None
LPPEFUG	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)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	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)
LPPEFUG	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)	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)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
					§ 60.562-2(e)				
LPPEFUG	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)
LPPEFUG	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)
LPPEFUG	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)
LPPEFUG	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 pumps in heavy-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)
LPPEFUG	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 valves in heavy-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)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
LPPEFUG	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)
LPPEFUG	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 flanges or other connectors.	[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)
LPPEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
LPPEFUG	EU	63FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFF	§ 63.2480(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
PRECLOAD	EU	R5211	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(b)(1) § 115.212(b)(1)(A) § 115.212(b)(3)(A) § 115.212(b)(3)(A)(i) § 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.212(b)(3)(E) § 115.214(b)(1)(B) § 60.18	In Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis and Victoria Counties, vapors caused by the loading of VOC with a TVP of 1.5 psia or greater must be controlled by one of the following.	§ 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(A)(ii) § 115.214(b)(1)(A)(iii) § 115.215(1) § 115.215(10) [G]§ 115.215(2) [G]§ 115.215(3)	§ 115.216 § 115.216(1) § 115.216(1)(B) § 115.216(2) [G]§ 115.216(3)(A) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
							§ 115.215(4) § 115.215(5) § 115.215(8) § 115.215(9) § 115.216 § 115.216(1) § 115.216(1)(B)		
1100	EU	63FFFF-BATCH	HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2460(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
1100	EU	63FFFF-STREAM	HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
246	EU	63FFFF	HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
705	EU	63FFFF	HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
PROFINSHG3	PRO	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
					§ 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	(a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	§ 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROFINSHG3	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)
PROMATRCV	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	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.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRCV	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
PROMATRVG1	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	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.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG1	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) [G]§ 60.565(d)(1) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG2	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	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.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROMATRVG2	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) [G]§ 60.565(d)(1) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
							[G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)		§ 60.565(l)
PROREACTG3	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	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.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PROREACTG3	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)
PROREACTG3	PRO	60DDD-3	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PRORMC22-2	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j)

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
						modification/reconstruction/replacement, the vent stream is exempted.	§ 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
PRORMHEXA	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e)	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.	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j)	§ 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l)
530	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK2	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK3	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
GRP-TK4	EU	R5112	VOC	30 TAC Chapter 115,	§ 115.112(c)(1)	Tanks shall not store VOC,	** See Periodic	None	None

Applicable Requirements Summary

Unit/Group/Process		SOP Index No.	Pollutant	Emission Limitation/Standard or Equipment Specification		Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ID No.	Type			Name	Citation				
				Storage of VOCs		other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	Monitoring Summary		
GRP-TK5	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
LP1RRICATK	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
LP1RTFT2TK	EU	R5112	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None

ADDITIONAL MONITORING REQUIREMENTS

Periodic Monitoring Summary34

Periodic Monitoring Summary

UNIT/GROUP/PROCESS INFORMATION	
ID Nos.: GRP-TK2, GRP-TK3, GRP-TK4, GRP-TK5 & LP1RRICATK	Applicable Form: OP-UA03
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: N/A	
Deviation Limit: Absence of flare pilot flame	
<p>Periodic Monitoring Text:</p> <p>Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any 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. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p>	

Periodic Monitoring Summary

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 530 & LP1RTFT2TK	Applicable Form: OP-UA03
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: N/A	
Deviation Limit: Fill-pipe must be repaired (if necessary) prior to filling the tank	
Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	

Periodic Monitoring Summary

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 530 & LP1RTFT2TK	Applicable Form: OP-UA03
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Liquid Level	
Minimum Frequency: Once per day*	
Averaging Period: N/A	
Deviation Limit: Fill-pipe must be submerged at all times	
<p>Periodic Monitoring Text:</p> <p>Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.</p>	

PERMIT SHIELD

Permit Shield38

Permit Shield

The TCEQ Executive Director 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.	Unit Type	Group/Inclusive Units		
246	FLARES	N/A	40 CFR Part 60, Subpart A	Flare not subject to 40 CFR 60.18
246	FLARES	N/A	40 CFR Part 63, Subpart A	Flare is not used to comply with any 40 CFR 63 regulations.
705	FLARES	N/A	40 CFR Part 63, Subpart A	Flare is not used to comply with any 40 CFR 63 regulations.
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	40 CFR Part 61, Subpart J	Fugitive sources are not intended to operate in benzene service.
LPPEFUG	FUGITIVE EMISSION UNITS	N/A	40 CFR Part 61, Subpart V	Fugitive sources are not intended to operate in VHAP service.
PROCAT	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Facility not involved in the manufacture of polypropylene, polyethylene, polystyrene or poly(ethylene terephthalate).
PROFINSHG1	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PROFINSHG2	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PROLP1R	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PROREACTG1	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.

Permit Shield

The TCEQ Executive Director 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.	Unit Type	Group/Inclusive Units		
PROREACTG2	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PRORMC21-1	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PRORMC4	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PRORMC5	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PRORMHEXE	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PROSTOREG1	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
PROSTOREG2	POLYMER MANUFACTURING PROCESSES	N/A	40 CFR Part 60, Subpart DDD	Process section was constructed before 9/30/87 with no modification or reconstruction after 9/30/87.
530	STORAGE TANKS/VESSELS	N/A	40 CFR Part 60, Subpart Ka	Tank does not store petroleum liquids.
GRP-TK1	STORAGE TANKS/VESSELS	1154, 3572, 3672, C-3082, C-3090, C-3095, C-3581, C-7473, D-7452	40 CFR Part 60, Subpart Kb	Tank design capacity is less than 40 m ³ (10,600 gallons).

Permit Shield

Unit/Group/Process			Regulation	Basis of Determination
ID No.	Unit Type	Group/Inclusive Units		
GRP-TK2	STORAGE TANKS/VESSELS	C-3520	40 CFR Part 60, Subpart Kb	Tank design capacity is less than 40 m3 (10,600 gallons).
GRP-TK3	STORAGE TANKS/VESSELS	C-3084, C-3086, C-3091, C-3092	40 CFR Part 60, Subpart Kb	Tank design capacity is less than 40 m3 (10,600 gallons).
GRP-TK4	STORAGE TANKS/VESSELS	LP1RCIC5TK, LP1RIC51DT, LP1RRC5TK, LP1RRC6TK	40 CFR Part 60, Subpart K	Tank design capacity is less than 151.414 liters (40,000 gallons).
GRP-TK5	STORAGE TANKS/VESSELS	LP1RC4BULT, LP1RC6BULT	40 CFR Part 60, Subpart Ka	Tank does not store petroleum liquids.
LP1RTFT2TK	STORAGE TANKS/VESSELS	N/A	40 CFR Part 60, Subpart K	Tank design capacity is less than 151,414 liters (40,000 gallons).
LP1RTMATK	STORAGE TANKS/VESSELS	N/A	30 TAC Chapter 115, Storage of VOCs	Tank stores less than 1,000 gallons
LP1RTMATK	STORAGE TANKS/VESSELS	N/A	40 CFR Part 60, Subpart Kb	Tank design capacity is less than 40 m3 (10,600 gallons).

NEW SOURCE REVIEW AUTHORIZATION REFERENCES

New Source Review Authorization References42

New Source Review Authorization References by Emission Unit.....43

New Source Review Authorization References

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

PSD Permits	NA Permits
PSD Permit No.: PSDTX118M4	NA Permit No.: none
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.: 1567 (11/16/2005)	Authorization No.: 18773 (07/13/2009)
Authorization No.: 3639 (05/15/2006)	Authorization No.: 46922 (02/22/2001)
Authorization No.: 56757 (10/28/2003)	Authorization No.: 6141A (11/17/2008)
Authorization No.: 6361 (11/23/2005)	Authorization No.: blank
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 034	Version No./Date: 08/11/1989
Number: 082	Version No./Date: 04/05/1995
Number: 106	Version No./Date: 05/04/1994
Number: 106.261	Version No./Date: 03/14/1997
Number: 106.261	Version No./Date: 12/24/1998
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 03/14/1997
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 09/04/2000
Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum	
Permit No.: None	Permit No.: None

New Source Review Authorization References by Emission 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
1007	CATALYST BIN 31 LOADING	1567
1009	CAT. CONTAINER LOADING: Y352	1567
1043	G17 SAMPLE PUGER	3639
1044	SOUTH ETHYLENE SIEVE VENT	1567
1045	WEST ETHYLENE SIEVE VENT	1567
1046	ISOPENTANE BEDS	1567
1047	BUTENE BEDS	1567
1048	HEXENE BEDS	1567
1052	#1 GRANULAR MAKE BAGHOUSE	6141A
1053	#2 GRANULAR MAKE BAGHOUSE	6141A
1079	CATALYST WASH POT	3639
1080	CATALYST WASH POT	3639
1081	CATALYST WASH POT	1567
1082	CATALYST WASH POT	1567
1083	CATALYST WASH POT	1567
1084	CATALYST WASH POT	1567
1085	CATALYST WASH POT	1567
1086	CATALYST WASH POT	6141A
1100	EPR FLARE	6361, PSDTX118M4
1127	G-2 BLENDER BLOW TANK FILTER	1567
1143D	CONTAINER LOADING FILTER	6361
1152A	PRODUCT CONTAINER VENT	1567
1152B	PRODUCT CONTAINER VENT	1567

New Source Review Authorization References by Emission 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
1154	MINERAL OIL TANK	1567
1161	SILICA DEHYDRATOR	106.262 03/14/1997
191	UNIT MAKE BIN 841	3639
192	UNIT MAKE BIN 842	3639
193	UNIT MAKE BIN 843	3639
194	UNIT MAKE BIN 844	3639
196	UNIT MAKE BIN 846	3639
197	UNIT MAKE BIN 847	3639
198	UNIT MAKE BIN 848	3639
199	UNIT MAKE BIN 851	3639
201	UNIT MAKE BIN 853	3639
202	UNIT MAKE BIN 854	3639
203	UNIT MAKE BIN 855	3639
204	UNIT MAKE BIN 856	3639
205	UNIT MAKE BIN 857	3639
206	UNIT MAKE BIN 858	3639
230	G-5 BLENDER BLOW TANK FILTER	6361
234	BLOCK 25 SILO 101 BAGHOUSE	1567
235	BLOCK 25 SILO 102 BAGHOUSE	1567
236	BLOCK 25 SILO 103 BAGHOUSE	1567
237	BLOCK 25 SILO 104 BAGHOUSE	1567
238	BLOCK 25 SILO 105 BAGHOUSE	1567
239	BLOCK 25 SILO 106 BAGHOUSE	1567

New Source Review Authorization References by Emission 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
240	BLOCK 25 SILO 107 BAGHOUSE	1567
241	BLOCK 25 SILO 201 BAGHOUSE	1567
242	BLOCK 25 SILO 202 BAGHOUSE	1567
243	BLOCK 25 SILO 203 BAGHOUSE	1567
244	BLOCK 25 204 BAGHOUSE	1567
246	LARGE FLARE	1567, 18773, 3639, 6141A, 6361
248	G5 SEAL OIL SYSTEM VENT	1567
351	G1750 SEAL OIL SYSTEM VENT	3639
3572	OIL SLURRY TANK	1567
3672	OIL SLURRY TANK	1567
387	SILO 401 BAGHOUSE	1567
388	SILO 402 BAGHOUSE	1567
389	SILO 403 BAGHOUSE	1567
390	SILO 404 BAGHOUSE	1567
391	SILO 405 BAGHOUSE	1567
392	SILO 406 BAGHOUSE	1567
393	SILO 301 BAGHOUSE	1567
394	SILO 302 BAGHOUSE	1567
395	SILO 303 BAGHOUSE	1567
396	SILO 304 BAGHOUSE	1567
397	SILO 305 BAGHOUSE	1567
398	SILO 306 BAGHOUSE	1567
399	BLOCK 25 SILO 205 BAGHOUSE	1567

New Source Review Authorization References by Emission 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
400	BLOCK 25 SILO 206 BAGHOUSE	1567
441	G1750 CAT. FEEDER VENT	3639
468	CATALYST BIN 22 FILTER	6361
469	CATALYST BIN 23 FILTER	6361
470	CATALYST BIN 24 FILTER	6361
479	#2 ACTIVATOR FILTER	6141A
483	G-3 BLENDER BLOW TANK FILTER	6141A
484	CATALYST BIN 25 FILTER	6141A
485	CATALYST BIN 26 FILTER	6141A
488	NORTH CATALYST BLOW TANK	6141A
489	CENTER CATALYST BLOW TANK	6141A
490	SOUTH CATALYST BLOW TANK	6141A
491	G1 CATALYST FEEDER FILTER	6141A
492	G1 CATALYST FEEDER FILTER	6141A
493	G2 CATALYST FEEDER FILTER	6141A
494	G2 CATALYST FEEDER FILTER	6141A
495	G1 SEAL OIL SYSTEM VENT	6141A
496	G2 SEAL OIL SYSTEM VENT	6141A
500	#1 FLUID BED COOLER FILTER	6141A
501	#2 FLUID BED COOLER FILTER	6141A
504	RESIN BIN 101	6141A
505	RESIN BIN 102	6141A
506	RESIN BIN 103	6141A, PSDTX118M4

New Source Review Authorization References by Emission 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
507	RESIN BIN 201	6141A
508	RESIN BIN 202	6141A
509	RESIN BIN 203	6141A
530	THF TANK	1567
591	P1 FEED HOPPER BAGHOUSE	6141A
594	PELLET DRYER VENT	6141A
705	SMALL FLARE	1567, 18773, 3639, 6141A, 6361
707	G3 SEAL OIL SYSTEM VENT	18773
720	P3 MIX/FEED HOPPER BAGHS.	18773
721	P3 PELLET DRYER	18773
722	RESIN BIN 301	18773
723	RESIN BIN 302	18773
724	RESIN BIN 303	18773
771	CATALYST BLOW TANK	6141A
772	NO 3 ACTIVATOR FILTER	6361
A-227	#1 ACTIVATOR FILTER	6361
A-233	G-5 CATALYST FEEDER VENT	1567
C-3082	SPENT MCB TANK	6361
C-3084	SPENT ISOPENTANE TANK	6361
C-3086	WASTE TANK	6361
C-3090	MCB-TANK	6361
C-3091	ISOPENTANE TANK	6361
C-3092	ETHANOL TANK	6361

New Source Review Authorization References by Emission 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
C-3095	OCTANOL TANK	6361
C-3520	THF SOLVENT TANK	1567
LP1RC4BULT	BUTENE STORAGE BULLET	1567
LP1RC6BULT	HEXENE TANK	1567
LP1RCIC5TK	CRUDE ISOPENTANE TANK	082 04/05/1995
LP1RIC51DT	ISOPENTANE DUMP TANK #1	1567
LP1RRC5TK	REFINED ISOPENTANE TANK	082 04/05/1995
LP1RRC6TK	RINED HEXENE TANK #2	1567
LP1RRICATK	HEXANE TANK	18773
LP1RTFT2TK	CO-CATALYST TANK #2	6361
LP1RTMATK	CO-CATALYST TANK #1	6141A
LPPEFUG	APPLICATION AREA FUGITIVES	1567, 18773, 3639, 6141A, 6361
PRECLOAD	PRECURSOR WASTE LOADING	6361
PROCAT	CATALYST FACILITIES	1567, 18773, 6141A, 6361
PROFINSHG1	FINISHING SECTION: LP-2 G1	6141A
PROFINSHG2	FINISHING SECTION: LP-2 G2	6141A
PROFINSHG3	FINISHING SECTION: LP-2 G3	18773
PROLP1R	LP-1 REACTION FACILITIES	1567, 3639
PROMATRCV	RECOVERY SECTION: LP-2 G1/G2	6141A
PROMATRVG1	RECOVERY SECTION: LP-2 G1	6141A
PROMATRVG2	RECOVERY SECTION: LP-2 G2	6141A
PROREACTG1	REACTION SECTION: LP-2 G1	6141A
PROREACTG2	REACTION SECTION: LP-2 G2	6141A

New Source Review Authorization References by Emission 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
PROREACTG3	REACTION SECTION: LP-2 G3	18773
PRORMC21-1	LP1ETHYLENE PREP. SECT. NO. 1	1567
PRORMC22-2	LP2 ETHYLENE PREP. SECT. NO. 2 AT LP-2	18773
PRORMC4	PREPARATION SECTION: BUTENE	1567, 6141A
PRORMC5	PREPARATION SECTION: ISOPENTANE	1567
PRORMHEXA	PREPARATION SECTION: HEXANE	18773
PRORMHEXE	PREPARATION SECTION: HEXENE	1567
PROSTOREG1	STORAGE SECTION: LP-2 G1	6141A
PROSTOREG2	STORAGE SECTION: LP-2 G2	6141A
PROSTOREG3	STORAGE SECTION: LP-2 G3	18773
VENT1100	VENT HEADER FOR FLARE 1100	6141A, PSDTX118M4
VENT246	VENT HEADER FOR FLARE 246	1567, 18337, 3639, 6141A, 6361
VENT705	VENT HEADER FOR FLARE 705	1567, 18773, 6141A

APPENDIX A

Acronym List.....51

Acronym List

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

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
EIP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G	Houston/Galveston (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO _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
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

APPENDIX B

Permit Numbers 1567 and PSDTX118M4.....53

Permit Numbers 18773 and PSDTX118M4.....70

Permit Numbers 3639 and PSDTX118M4.....82

Permit Numbers 6141A and PSDTX118M4.....90

Permit Numbers 6361 and PSDTX118M4.....110

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 16, 2005

Mrs. Ronda Woods
Environmental, Health, and Safety Delivery Leader
Union Carbide Corporation
P.O. Box 186
Port Lavaca, Texas 77979

Re: Permit Amendment
Permit Number: 1567
Low Pressure Polyethylene and Catalyst Facility
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781
Account Number: CB-0028-T

RECEIVED
JUN 09 2006
TCEQ
CENTRAL FILE ROOM

Dear Mrs. Woods:

This is in response to your letter dated July 5, 2005, and your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) concerning the proposed amendment to Permit Number 1567. We understand that you propose to update representations due to recent emissions testing and to add flare maintenance emissions. Also, this will acknowledge that your application for the above-referenced amendment is technically complete as of October 24, 2005.

As indicated in Title 30 Texas Administrative Code (30 TAC) § 116.116(b), and based on our review, Permit Number 1567 is hereby amended. This information will be incorporated into the existing permit file. Enclosed are revised special conditions pages and a maximum allowable emission rates table to replace those currently attached to your permit.

Upon request, the Texas Commission on Environmental Quality (TCEQ) Executive Director may grant extensions as allowed in 30 TAC § 116.120(b).

Please reference the TCEQ air account number, regulated entity reference number (RN), and customer reference number (CN) included in this document in all future correspondence. Before the Central Registry program began, the TCEQ assigned air account numbers. In the Central Registry computer application, the RN is a unique number assigned to the facility (if portable) or site (if permanent), and the CN is a unique number assigned to the company or corporation and applies to all facilities and sites owned or operated by the company or corporation.

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: www.tceq.state.tx.us

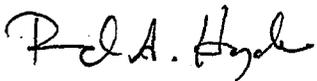
Printed on recycled paper using soy-based ink

Mrs. Ronda Woods
Page 2
November 16, 2005

Re: Permit Number: 1567

Thank you for your cooperation and interest in air pollution control. If you need further information or have any questions, please contact Ms. Kendra Nelson at (512) 239-3737 or write to the Texas Commission on Environmental Quality, Office of Permitting, Remediation, and Registration, Air Permits Division (MC-163), P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,



For Glenn Shankle, Executive Director
Texas Commission on Environmental Quality

GS/KEN/ssl

Enclosures

cc: Mr. John Weitz, Environmental, Health, and Safety Delivery Specialist, Union Carbide
Corporation, Port Lavaca
Air Section Manager, Region 14 - Corpus Christi



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AIR QUALITY PERMIT - GENERAL CONDITIONS



AND PERTINENT RULES EFFECTIVE FOR PERMITS ISSUED
OR AMENDED ON OR AFTER AUGUST 16, 1994

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 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% 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 to the Office of Permitting, Remediation, and Registration 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)]
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 § 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 are 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 be appealed pursuant to 30 TAC § 50.139.
12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
13. 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(e)]
14. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. 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.

(Rev: July 24, 2003)

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

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 conditions specified in this permit. (2/04)
2. There shall be no visible emissions during normal operation from the baghouses associated with this permit.
3. This permit authorizes emissions from the Flare (Emission Point No. [EPN] 246 for maintenance, start-up, and shutdown of the G-5 reactor for instances including (but not limited to) inventory control, product transitions, periodic maintenance activities, and periodic shutdowns. These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table (MAERT). Any maintenance, start-up, and shutdown activities not in the above list are not authorized by this permit. (11/05)

FLARE UPGRADE

4. A. The December 6, 1993 renewal of and amendment to this permit required the permit holder to conduct a study assessing the ability of the Poly Flare (EPN A-246) to meet the requirements of Title 40 Code of Federal Regulations (40 CFR) § 60.18. The final result of the study was submitted to the Texas Commission on Environmental Quality (TCEQ) in a report dated October 14, 1994, in which certain actions were proposed to ensure that the minimum waste gas heating value requirement of 40 CFR § 60.18 would be met. The holder of this permit shall implement those proposed actions according to the timetable contained in the report. The designation for the Poly Flare (EPN A-246) has been changed to Large Flare (EPN 246).
- B. The Large Flare (EPN 246) shall be exempt from the maximum tip velocity requirement in Special Condition No. 8. Tip velocity shall not exceed 400 feet per second (ft/sec) for more than three hours per year; and duration of operation of this flare with tip velocity in excess of 400 ft/sec shall be recorded and maintained per Special Condition No. 20. (11/00)

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 2

PRODUCTION RATES AND THROUGHPUT REQUIREMENTS

5. The facilities covered by this permit are limited to the production rates and throughput limits summarized in a "business confidential" letter to the TCEQ dated July 6, 2000. Copies of this letter are available at the TCEQ Corpus Christi Regional Office and the TCEQ Austin Office.
(11/00)

OPERATIONAL PARAMETERS

6. All air pollution abatement and collection equipment for the facility covered by this permit shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed, as necessary, so that the equipment efficiency can be adequately maintained. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouse:
 - A. The exterior of baghouses and all connecting duct work shall be inspected quarterly by facility personnel for physical defects such as holes or cracks that may cause leaks and excess emissions or losses in particulate matter removal efficiency.
 - B. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate TCEQ Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.
7. Particulate dust collected from the baghouse shall be disposed of in such a manner to prevent it from becoming airborne.
8. Except as provided for in the special conditions of this permit, flares shall be designed and operated in accordance with the following requirements:

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 3

- A. The combined assist natural gas and waste stream to the flare shall meet the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions. Compliance with this condition shall be demonstrated by monitoring required in section D below. Flare testing per 40 CFR § 60.18(f) may be requested by the TCEQ Regional Office to demonstrate compliance with this condition.
- B. The flare shall be operated with a flame present at all times and have a constant pilot flame. The pilot flame shall be monitored by a thermocouple or an infrared monitor and pilot flame monitoring.
- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.
- D. To ensure compliance with 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream flow composition (total volatile organic compounds [VOC] or Btu content) and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. Records of the hourly average heating value shall be maintained for a period of two years and shall be made available to the Executive Director of the TCEQ upon request.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ± 5.0 percent, temperature monitor shall be ± 2.0 percent at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg;

Calibration of the analyzer shall follow the procedures and requirements of § 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in § 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in § 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with § 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR § 60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 4

Compliance with analyzer calibration procedures shall go into effect April 1, 2005.

If calorimeter used, the calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in Btu per standard cubic foot of the gas.

The monitors and analyzers shall operate as required by this section at least 95 percent 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. (1/05) PSD

9. The Flare (EPN 705) shall operate with no less than 99.5 percent efficiency in disposing of the carbon compounds captured by the collection system. The Flare (EPN 246) shall operate with no less than 99 percent efficiency for C2 and C3 compounds and 98 percent efficiency for all other compounds in disposing of carbon compounds captured by the collection system. (6/98)
10. 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 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.

Storage tank vents, cooling tower exhaust, and process fugitive emissions are excluded from this requirement. Any other exception to this condition requires prior review and approval by the TCEQ Executive Director, and such exceptions may be subject to strict monitoring requirements. (2/04)

11. The following safety relief valves at the UCAT-J facility are exempted from the control requirements outlined in Special Condition No. 10:

PSV's 3550-101 and 3650-101 (Spray Dryer Inlets)
PSV's 3551-101 and 3651-101 (Cyclone Outlets)
PSV's 3553-100 and 3653-100 (Scrubber Outlets)
PSV's 3555-101 and 3655-101 (Recycle Gas Heaters)
PSV's 3581-100 (Refrigeration Hold Tank) (3/99)

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 5

12. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter. (1/05) (PSD)
13. The Catalyst Bins associated with EPNs 1007 and 1009 shall be limited to the total throughput of 900,000 pounds per year (lbs/yr) per bin based on a 12-month rolling average. (4/04)
14. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28M
 - A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch (psi), absolute at 100°F or at maximum process operating temperature if less than 100°F or (2) to piping and valves two inches nominal size and smaller or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
 - B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute, American Petroleum Institute, American Society of Mechanical Engineers, or equivalent codes.
 - C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
 - D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115, shall be identified in a list to be made available upon request.
 - E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 6

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

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

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

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

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, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

SPECIAL CONDITIONS

Permit Numbers 1567 and PSD-TX-118M4

Page 7

- I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations. (11/00)

- K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

SAMPLING REQUIREMENTS

- 15. A. The residual hydrocarbon content of the resin which is transferred to silos will be measured quarterly by the sealed can-gas chromatographic test for the "worst-case" resin (resin containing the most entrained hydrocarbons before being purged). The operating unit shall have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.
- B. The residual hydrocarbon content of the resin which is transferred to silos shall not exceed the following levels in by weight (ppmw):

<u>Compound</u>	<u>ppmw</u>
ethylene	23
butanes	30
butenes	20
hexanes	122
hexenes	168
isopentane	67

SPECIAL CONDITIONS
Permit Numbers 1567 and PSD-TX-118M4
Page 8

These levels represent the highest residual content of these compounds contained in the resin which may be transferred to silos from the G-5, G-2, G-3, and G-1750 Reactors.
(10/04)

RECORDKEEPING

16. Pursuant to Special Condition No. 6, records shall be kept on-site detailing the date of each inspection, name of the inspector, and any repair and maintenance work performed.
17. The holder of this permit shall keep records of the quantity of polyethylene handled on an annual basis. In cases where more than one storage silo has been grouped together in this permit, only a record of the quantity of polyethylene handled in the group of silos is necessary.
18. The holder of this permit shall maintain records of the sealed can-gas chromatographic test of the worst-case resin containing the most entrained hydrocarbons before being purged. The holder shall also have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.
19. This condition applies to EPNs 1007 and 1009. A record of A and B must be maintained. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request. (4/04)
 - A. Catalyst throughput in lbs/yr for EPNs 1007 and 1009.
 - B. Logs of replacement or repair of filters used for particulate emission control.
20. Records required by these special conditions shall be retained at the plant site for at least two years following the date the data is obtained and shall be made available to representatives of the TCEQ upon request.

Dated November 16, 2005

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 1567 and PSD-TX-118M4

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. 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 *	
			lb/hr	TPY**
233	G5 Catalyst Feed Vent	PM	0.01	0.01
		VOC	0.33	1.45
245	Y-System Baghouse Vent	PM	0.10	0.19
246	Large Flare	VOC	210.30	65.79
		NO _x	29.75	18.26
		CO (PSD)	151.57	93.06
		SO ₂	0.40	0.50
246	Large Flare (Start-Up, Shutdown, and Maintenance)	VOC	507.88	4.38
		NO _x	46.31	0.40
		CO	235.99	2.06
248	G5 Gas Compressor Seal Oil Vent	VOC	0.27	1.16
249	Analyzer Vents	VOC	0.32	1.37
401, 402, 404, and 615	X-1, X-2, X-5, and X-6 Transfer Systems	PM	0.29	0.79 (7)
403	X-3 Transfer System	PM	0.10	0.19
409	Blending Bins Baghouse	PM	7.20	2.70
540	Master Batch System Vent	PM	0.02	0.01
1005	G-5 Product Purge Bin Rotary Feeder Vent	PM	0.02	0.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1029	Resin Seed Bed Vent (8)	PM	8.13	0.13

SILOS

234 H	Silo 101 Baghouse			
235 H	Silo 102 Baghouse			
236 H	Silo 103 Baghouse			
237 H	Silo 104 Baghouse			
238 H	Silo 105 Baghouse			
239 H	Silo 106 Baghouse			
240 H	Silo 107 Baghouse			
241 H	Silo 201 Baghouse			
242 H	Silo 202 Baghouse			
243 H	Silo 203 Baghouse			
244 H	Silo 204 Baghouse			
399 H	Silo 205 Baghouse			
400 H	Silo 206 Baghouse			
387 H	Silo 401 Baghouse			
388 H	Silo 402 Baghouse			
389 H	Silo 403 Baghouse			
390 H	Silo 404 Baghouse			
391 H	Silo 405 Baghouse			
392 H	Silo 406 Baghouse			
393 H	Silo 301 Baghouse			
394 H	Silo 302 Baghouse			
395 H	Silo 303 Baghouse			
396 H	Silo 304 Baghouse			
397 H	Silo 305 Baghouse			
398 H	Silo 306 Baghouse			
	Total Silos	PM	0.21 (6)	0.79 (7)
		VOC	7.03 (6)	11.46 (7)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1081	Block 12 North Catalyst Wash Pot	VOC	5.87	0.85
1082	Block 12 Middle Catalyst Wash Pot	VOC	5.87	0.85
1083	Block 12 South Catalyst Wash Pot	VOC	5.87	0.85
1084	Block 25 Precursor Wash Pot	VOC	5.87	1.45
1085	Block 25 G-2/G-4 Blender Wash Pot	VOC	5.87	1.45

BLENDING BINS

405	North Blending Bin			
406	South Blending Bin			
Total EPNs 405 and 406		PM	0.90 (6)	0.49 (7)
766-3	Feed Stream Fugitives (4)	VOC	8.57	37.58
766-7	Reactor Fugitives (4)	VOC	5.77	25.28

CATALYST EXPANSION/ISOPENTANE RECOVERY

1125	No. 4 Activator Vent Filter	PM	0.01	0.02
1126	No. 4 Activator Blow Tank Vent Filter	PM	0.01	0.01
1127	G2 Blender Blow Tank Vent Filter	PM VOC	0.01 0.11	0.01 0.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1128	G4 Blender Blow Tank Vent Filter	PM	0.01	0.01
		VOC	0.11	0.54
1129	Catalyst Expansion Area Fugitives (4) (9)	VOC	1.16	5.09
705	Small Flare (10)	VOC	17.47	5.06
		NO _x	8.17	3.02
		CO (PSD)	12.52	4.63
530	THF Tank Vent	VOC	22.06	0.53
535	Bin 7117 Vent Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.50	0.61
535L	Bin 7117 Cylinder Loading Filter	PM	0.01	0.01
		Chromium Metal	0.01	0.01
		VOC	0.20	0.24
1044	South Ethylene Sieve Vent	VOC	6.00	
1045	West Ethylene Sieve Vent	VOC	6.00	
Total EPNs 1044 and 1045		VOC	1.62	
1046	Isopentane Sieves Combined Vent	VOC	6.0	0.94
1047	Butene Sieves Combined Vent	VOC	6.0	3.95
1048	Hexene Sieves Combined Vent	VOC	6.0	0.75

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1007	Catalyst Bin 31 Loading	PM	0.02	0.09
		VOC	0.71	3.09
1009	Catalyst Cylinder Loading	PM	0.01	0.01
		VOC	0.02	0.07
<u>UCAT-J FACILITY</u>				
705	Small Flare (10)	VOC	2.39	0.79
		NO _x	1.13	0.38
		CO	1.72	0.57
1150	Silica Charge Pot Filter	PM	0.01	0.02
1151	Magnesium Chloride Charge Pot Filter	PM	0.01	0.01
1152A	Product Cylinder Vent	VOC	0.01	0.01
1152B	Product Cylinder Vent	VOC	0.01	0.01
1154	Mineral Oil Tank Vent	VOC	0.01	.01
1155	Fugitives (4)	Inorganic	0.01	0.02
		VOC	0.52	2.24
1156A	Fugitives (4)-Silica Truck No. 1	PM	0.01	0.01
1156B	Fugitives (4)-Silica Truck No. 2	PM	0.01	0.01
1158A	THF Filters	VOC	0.07	0.01
1158B	THF Filters	VOC	0.07	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1159A	THF Filters	VOC	0.07	0.01
1159B	THF Filters	VOC	0.07	0.01

- (1) Emission point identification - either specific equipment designation or emission point number from a plot-plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM₁₀
 PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 NO_x - total oxides of nitrogen
 CO - carbon monoxide
 SO₂ - sulfur dioxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) [reserved]
- (6) Maximum hourly emission rate from any one emission point listed within a group.
- (7) Maximum total annual emission rates for the group of listed emission points.
- (8) This EPN is associated with reactor start-up only.
- (9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
- (10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J Facility and catalyst expansion/isopentane recovery.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day _____ Days/week _____ Weeks/year _____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 16, 2005

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



Dave. L

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

July 13, 2009

MR TONY MOTL
EHS DELIVERY SPECIALIST
UNION CARBIDE CORPORATION
PO BOX 186
PORT LAVACA TX 77979-0186

Re: Permit Alteration
Permit Numbers: 18773 and PSDTX118M4
UCC Seadrift Operations
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781
Account Number: CB-0028-T

RECEIVED
JUL 16 2009
TCEQ
CENTRAL FILE ROOM

Dear Mr. Motl:

This is in response to your letter received June 23, 2009, requesting alteration of the conditions and maximum allowable emission rates table (MAERT) of the above-referenced permit. We understand you want to alter Permit Numbers 18773 and PSDTX118M4 to remove any sections that pertain to Ethylene Propylene Rubber Plant.

As indicated in Title 30 Texas Administrative Code § 116.116(c) [30 TAC § 116.116(c)], and based on our review, Permit Numbers 18773 and PSDTX118M4 are altered. Enclosed are the altered permit conditions and MAERT to replace those currently attached to your permit. Please attach these to your permit.

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC §§ 25.4 and 25.6.

For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following Web site:

http://www.tceq.state.tx.us/compliance/compliance_support/qa/env_lab_accreditation.html

Mr. Tony Motl
Page 2
July 13, 2009

Re: Permit Numbers 18773 and PSDTX118M4

For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by e-mail at labprgms@tceq.state.tx.us.

Your cooperation in this matter is appreciated. If you need further information or have any questions, please contact Mr. David Lefebvre at (512) 239-0774 or write to the Texas Commission on Environmental Quality, Office of Permitting and Registration, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Sincerely,



Steve Hagle, P.E., Acting Director
Air Permits Division
Office of Permitting and Registration
Texas Commission on Environmental Quality

SH/DL/bg

Enclosures

cc: Chief, New Source Review, Section (6PD-R), Environmental Protection Agency, Region 6,
Dallas
Air Section Manager, Region 14 - Corpus Christi

Project Number: 148430

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A PERMIT IS HEREBY ISSUED TO
Union Carbide Corporation
AUTHORIZING THE CONTINUED OPERATION OF
Polyolefins and Organic Chemical Manufacturing Plant
LOCATED AT
Seadrift, Calhoun County, Texas
LATITUDE 28° 30' 54" LONGITUDE 096° 46' 18"

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 date of issuance, discontinues construction for more than 18 consecutive months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant a onetime 18-month extension of the date to begin construction. [30 TAC § 116.120]
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)(B)]
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 to the Office of Permitting, Remediation, and Registration 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)(c)]
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)(D)]
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)(E)]
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)(F)]
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)(G)]
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 §§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)(H)]
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 are 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)(I)]
11. This permit may be appealed pursuant to 30 TAC § 50.139.
12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
13. 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)]
14. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. 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.

PERMIT 18773 and PSD-TX-118M4

Margaret Hoffman

Executive Director

SPECIAL CONDITIONS

Permit Numbers 18773 and PSDTX118M4

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. (11/05)
2. The polyethylene facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60, Subpart A and DDD (40 CFR Part 60, Subparts A and DDD) on Standards of Performance for New Stationary Sources promulgated for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry and for VOC emissions from the Polymer Manufacturing Industry.

BAGHOUSES AND FILTERS

3. There shall be no visible emissions during normal operations from baghouses or filters. All filters shall be maintained in good condition at all times and changed as necessary. A spare-parts filter inventory shall be maintained on site. Records shall be maintained of all inspections and maintenance performed. (11/05)
4. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.
5. All hooding, duct, and collection systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.
6. Particulate matter grain loading shall not exceed 0.01 grains per dscf of air from any vent with the exception of filters on Emission Point Nos. (EPNs) 716FF, 717FF, and 1239 - 1242, which will achieve a 99.9 percent removal efficiency. (4/04)

FUGITIVES

7. Piping, Valves, Flanges, Pumps, and Compressors in VOC Service

The following requirements apply to the above-referenced equipment:

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch, absolute (psia) at 100°F or at maximum process operating temperature if less than 100°F, (2) to piping and valves two inches nominal size and smaller, (3) where the operating pressure is at least five kilopascals (0.725 pounds per square inch [psi]) below ambient pressure, or (4) the EPR Area Fugitives (EPN FUGS). Equipment excluded from this condition shall be identified in a list to be made available upon request.
- 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.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115) shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance. Flanges shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

SPECIAL CONDITIONS

Permit Numbers 18773 and PSDTX118M4

Page 3

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

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

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

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, flanges, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping liquids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

SPECIAL CONDITIONS

Permit Numbers 18773 and PSDTX118M4

Page 4

- I. The results of the required fugitive monitoring and maintenance program shall be made available to the TCEQ Executive Director, or a designated representative, upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken for all components. Records of flange inspections are not required unless a leak is detected.
- J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable NESHAPS, 40 CFR Part 61, may be used in lieu of Items F through I of this condition.
- K. Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternative standards for these regulations.
- L. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

OPERATIONAL LIMITATIONS - POLYETHYLENE FACILITY

- 8. 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 the 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. (09/02)

PSV-2001-61	PSV-2105-60	PSV-3001-60	PSV-4101-60	PSV-5009-60
PSV-2001-62A	PSV-2109-60	PSV-3003-60	PSV-4103-60	PSV-9004-60
PSV-2001-62B	PSV-2112-60	PSV-4001-60	PSV-4106-60	PS-53081-30
PSV-2002-60	PSV-2113-606	PSV-4001-67	PSV-4108-60	PSV-641-33

- 9. Safety valves that discharge to the atmosphere only as a result of fire or failure of utilities are exempt from Special Condition No. 10 provided that each valve is equipped with a

SPECIAL CONDITIONS

Permit Numbers 18773 and PSD-TX-118M4

Page 5

rupture disc upstream. A pressure gauge shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next scheduled process shutdown. (9/02)

10. The production of linear low-density and high-density polyethylene from the polyethylene facility for any 12-month period shall not exceed 621 million pounds. Monthly production records shall be maintained at the plant site for a period of three years and shall be made available for inspection by the Executive Director of the TCEQ or TCEQ representative.
11. Except as provided for in the special conditions of this permit, flares shall be designed and operated in accordance with 40 CFR § 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter. The flare gas analyzer and flow monitor shall be in service no less than 95 percent of the operating time as determined on a 12-month rolling basis. The holder of this permit shall continue to comply with the provisions of 40 CFR § 60.18 during the flare gas analyzer or flow monitor downtime.

To ensure compliance with the provisions of 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream composition (total VOC or British thermal units [Btu] content) and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. Records of the hourly average heating value shall be maintained for a period of two years and shall be made available to the Executive Director of the TCEQ upon request. (4/04)

12. The Large Flare (EPN No. 246) shall be exempt from the maximum tip velocity requirement in Special Condition No. 13.

SPECIAL CONDITIONS

Permit Numbers 18773 and PSD-TX-118M4

Page 6

13. The Small Flare (EPN No. 705) shall operate with no less than 99.5 percent efficiency in disposing of the carbon compounds contained in waste gases captured by the collection system. (10/01)
14. The valves located on the low-pressure flare header which cannot be monitored without elevating the monitoring personnel more than six feet above a support surface shall be monitored once per year for fugitive emissions using EPA Method 21. These valves are exempt from the quarterly fugitive monitoring requirements of Special Condition No. 8.

RECORDKEEPING REQUIREMENTS

15. Records as required in the special conditions of this permit shall be kept on-site for a minimum of three years and shall be made available to representatives of the TCEQ or any local programs having jurisdiction upon request.

Dated July 13, 2009

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 18773 and PSDTX118M4

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. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit. (4/08)

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
<u>Polyethylene Facility:</u>				
700	Rxn and Ethylene Purification Fugitives (4)	VOC	6.04	25.56
704	Analyzer Vent	VOC	0.22	0.96
705	Small Flare	CO	52.86	70.31
		NO _x	17.08	22.71
		VOC	48.34	62.49
707	Cycle Gas Compressor Seal and Lube Oil Vent	VOC	0.11	0.48
708	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01
		VOC	0.57	0.17
709	Catalyst Transfer Tank Vent Filter	PM	0.01	0.01
		VOC	0.57	0.17
710	G-3 Reactor Sed Bed Vent	Polyethylene Dust	8.13	0.20
712	Catalyst Vent Filter	PM	0.04	0.01
		VOC	0.006	0.003
715	Pneumatic Conveyor Vent Filter	PM	0.01	0.01
716-717	Additive Bin Vent Filters	PM	0.02	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
716FF	P3 Pelleter Preblender Receiver	Additive Dust	0.13	0.08
717FF	P3 Pelleter Antiox Receiver	Additive Dust	0.13	0.08
718	Trim Receiver Vent Filter	PM	0.03	0.03
720	Pelleting System Dust Collector	PM	0.01	0.01
721	Pelleter Dryer Exhaust	PM	0.95	3.11
720, 722-724	Storage and Blend Bin Vent Filters and Pelleting System Dust Collector	PM VOC	0.10 6.44	0.31 18.53
725	Pellet Loading Vent Filter	PM	0.10	0.31
246	Large Flare	CO NO _x VOC	22.69 4.45 48.78	2.10 0.41 5.22
246	Large Flare Start-Up, Shutdown, and Maintenance	CO NO _x VOC	280.63 55.07 610.00	3.65 0.72 7.93
1239	Additive Hopper	PM ₁₀	0.04	0.05
1240	Additive Hopper	PM ₁₀	0.04	0.05
1241	Additive Hopper	PM ₁₀	0.04	0.05
1242	Additive Hopper	PM ₁₀	0.04	0.05

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
<u>Olefins II Facility</u>				
SD89	Fugitives - Product Ethylene (4)	VOC	5.81	25.31

- (1) Emission point identification - either specific equipment designation or emission point number from a 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
CO - carbon monoxide
NO_x - total oxides of nitrogen
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated July 13, 2009

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 15, 2006

Mr. Gerald Killian
Environmental, Health, and Safety Delivery Leader
Union Carbide Corporation
P.O. Box 186
Port Lavaca, Texas 77979-0186

Re: Permit Amendment and Renewal
Permit Numbers: 3639 and PSD-TX-118M4
Low Pressure Polyethylene G-1750 Plant
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781
Account Number: CB-0028-T

Dear Mr. Killian:

This is in response to your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) and Form PI-1R (General Application for Air Permit Renewals) concerning the proposed amendment and renewal of Permit Numbers 3639 and PSD-TX-118M4. We understand that you propose to update representations to permit application.

This will acknowledge that your application for the above-referenced amendment and renewal is technically complete as of March 23, 2006. In accordance with Title 30 Texas Administrative Code § 116.116(b) [30 TAC § 116.116(b)], and based on our review, Permit Numbers 3639 and PSD-TX-118M4 are hereby amended in accordance with your proposal. This information will be incorporated into the existing permit file. In addition, Permit by Rule Registration Number 71276 has now be incorporated into Permit Number 3639 and will now be voided.

Also, in accordance with 30 TAC § 116.314(a), and based on our review, your permit is hereby renewed. Enclosed is a permit for your facility. Also enclosed are new conditions and a maximum allowable emission rates table. We will appreciate you carefully reviewing the conditions of the permit and assuring that all requirements are consistently met.

This permit will be in effect for ten years from the date of approval (Commission's final decision). If this permit is appealed and the permittee does not commence any action authorized by this permit during judicial review, the term will not begin until judicial review is concluded.

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: www.tceq.state.tx.us

printed on recycled paper using soy-based ink.

Mr. Gerald Killian
Page 2

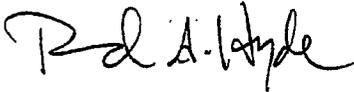
Re: Permit Numbers: 3639 and PSD-TX-118M4

May 15, 2006

Thank you for your cooperation in sending us the information necessary to evaluate your operations and for your commitment to air pollution control. If you have any questions, please contact Mr. David Reyna at (512) 239-6051 or write to Texas Commission on Environmental Quality, Office of Permitting, Remediation, and Registration, Air Permits Division (MC-163), P.O. Box 13087, Austin, Texas 78711-3087.

This action is authorized on behalf of the Texas Commission on Environmental Quality Executive Director.

Sincerely,



Richard A. Hyde, P.E., Director
Air Permits Division
Office of Permitting, Remediation, and Registration
Texas Commission on Environmental Quality

RAH/DR/ssl

Enclosures

cc: Mr. John Weitz, Environmental, Health, and Safety Delivery Specialist, Union Carbide Corporation, Port Lavaca
Air Section Manager, Region 14 - Corpus Christi
Mr. David Neleigh, Chief, New Source Review, Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 116523

SPECIAL CONDITIONS

Permit Numbers 3639 and PSD-TX-118M4

EMISSION LIMITATIONS AND OPERATING CONDITIONS

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. (4/04)
2. The annual production of polyethylene from the G-1750 Reactor and the throughput of polyethylene products in the Unit Make Bins (Emission Point Nos. [EPNs] 191 to 206) shall not exceed the amounts specified in the confidential letter dated August 7, 1995. Monthly production records shall be maintained at the plant site on at least a two-year retention basis and shall be made available upon request to Texas Commission on Environmental Quality (TCEQ) personnel.
3. There shall be no visible emissions during normal operation from filtered vents (i.e., baghouses, sintered metal filters) associated with this permit. When there are visible stack emissions from a filtered vent or leaks from a filtered vent for a period that exceeds five minutes in any two-hour period, the TCEQ Regional Office shall be notified within three days. The process controlled by the filtered vent shall be shut down immediately or rerouted to another control device until failed or damaged parts have been repaired or replaced. The filtered vent shall not resume operations until it is in good working order.
4. No more than 12,500 pounds of type A catalyst and 12,500 pounds of type G catalysts shall be deactivated per year based on a 12-month rolling average in the Catalyst Wash Pots (EPNs 1079 and 1080). (4/04)

FLARE

5. Flares shall be designed and operated in accordance with the following requirements: (05/06)
 - A. The Large Flare (EPN 246) shall be designed and operated in accordance with Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18), including specifications of minimum heating value of the waste gas and pilot flame monitoring. The large flare shall be exempt from the maximum exit velocity requirement. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

SPECIAL CONDITIONS

Permit Numbers 3639 and PSD-TX-118M4

Page 2

- B. The flare 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. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.
- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

FUGITIVE MONITORING PROGRAM

6. Piping, Valves, Connectors, Pumps, and Compressors in Volatile Organic Compounds (VOC) Service - 28VHP(05/06)

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

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) to piping and valves two inches nominal size and smaller or (3) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
- 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.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance.

SPECIAL CONDITIONS

Permit Numbers 3639 and PSD-TX-118M4

Page 3

Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

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

An approved gas analyzer shall conform to requirements listed in Title 40 Code of Federal Regulations § 60.485(a) - (b) [40 CFR § 60.485(a) - (b)].

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 and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

SPECIAL CONDITIONS

Permit Numbers 3639 and PSD-TX-118M4

Page 4

- I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
 - J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
 - K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
 - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable 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.
7. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E of Special Condition No. 6 at all other times

MAINTENANCE ACTIVITIES

8. This permit authorizes emission from the Poly Flare (EPN 246) for the following maintenance, start-up, and shutdown activities.
 - G1750 reactor start-up, shutdown, and maintenance activities
 - Process line flushing
 - G1750 reactor seed bed charges

These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance start-up and shutdown activities from EPN 246 not in the above list are not authorized by this permit.

Dated May 15, 2006

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 3639 and PSD-TX-118M4

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. 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 *	
			lb/hr	TPY **
246	Large Flare	VOC	79.53	87.95
		NO _x	6.93	8.72
		CO	35.34	44.44
246	Large Flare Startup, Shutdown, and Maintenance	VOC	107.89	1.22
		NO _x	11.10	0.12
		CO	56.57	0.58
441	Mark IV Catalyst Feeder Vent	PM	0.04	0.02
		VOC	0.02	0.03
347	Unit Analyzer Vents	VOC	0.11	0.46
351	Compressor Seal Oil Degassing Reservoir	VOC	0.2	0.86
766-5	Fugitives (4) (5)	VOC	4.5	19.72
191 to 206	Unit Make Bins	PM	0.13	0.35
		VOC	9.90	34.35
1043	Sample Purger	VOC	0.14	0.41
1079	Catalyst Wash Pot No. 1	VOC	5.87	0.85
1080	Catalyst Wash Pot No. 2	VOC	5.87	0.85
1162	Portable Mineral Oil Pot Vent	VOC	0.10	0.01
1178	Seed Bed Vent	PM	3.33	0.26
1223	Cycle Gas Line Fugitives (4) (5)	VOC	0.01	0.06

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
CO - carbon monoxide
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) 1.52 tpy of VOC emissions are authorized via Permit by Rule (PBR) Registration Numbers 32964, 31855, and 42305. These PBRs have not been voided.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day____ Days/week____ Weeks/year____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated May 15, 2006

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 17, 2008

MS HEATHER BARNES
ENVIRONMENTAL HEALTH AND SAFETY DELIVERY LEADER
UNION CARBIDE CORPORATION
PO BOX 186
PORT LAVACA TX 77979-0186

Re: Permit Renewal
Permit Number: 6141A
No. 2 Low Pressure Polyethylene Plants
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781
Account Number: CB-0028-T

Dear Ms. Barnes:

This is in response to your application Form PI-1R (General Application for Air Permit Renewals) concerning the proposed renewal of Permit Number 6141A.

As indicated in Title 30 Texas Administrative Code § 116.314(a) (30 TAC § 166.314(a), and based on our review, your permit is hereby renewed. Since you certified there were no changes to your existing permit, it is renewed as written and will be in effect for ten years from the date of approval (Commission's final decision). Please attach this letter to your permit. We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met.

Also, you are reminded that acceptance of this permit constitutes acknowledgment and agreement that you will comply with all rules, regulations, and orders of the commission issued in conformity with the Texas Clean Air Act and the conditions precedent to the granting of the permit. If more than one state 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.

Ms. Heather Barnes
Page 2
November 17, 2008

Re: Permit Number 6141A

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC §§ 25.4 and 25.6.

For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following website:

http://www.tceq.state.tx.us/compliance/compliance_support/qa/env_lab_accreditation.html

For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by e-mail at labprgms@tceq.state.tx.us.

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the Texas Commission on Environmental Quality (TCEQ) Executive Director's approval of the application. Any motion must explain why the commission should review the TCEQ Executive Director's action. According to 30 TAC § 50.139, an action by the TCEQ Executive Director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 11 copies of a motion must be filed with the Chief Clerk in person or by mail. The Chief Clerk's mailing address is Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. On the same day the motion is transmitted to the Chief Clerk, please provide copies to Mr. Robert Martinez, Director, Environmental Law Division, MC-173, and Mr. Blas J. Coy, Jr., Public Interest Counsel, MC-103, both at the same TCEQ address above. If a motion is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the TCEQ Executive Director's approval. According to Texas Health and Safety Code § 382.032, a person affected by the TCEQ Executive Director's approval must file a petition appealing the TCEQ Executive Director's approval in Travis County district court within 30 days after the effective date of the approval. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

Ms. Heather Barnes

Page 3

November 17, 2008

Re: Permit Number 6141A

Thank you for your cooperation in sending us the information necessary to evaluate your operations and for your commitment to air pollution control. If you need further information or have any questions, please contact Mr. Rick Goertz at (512) 239-5606 or write to the Texas Commission on Environmental Quality, Office of Permitting, Remediation, and Registration, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Sincerely,

Richard A. Hyde, P.E., Director
Air Permits Division
Office of Permitting, Remediation, and Registration
Texas Commission on Environmental Quality

RAH/RG/pg

cc: Air Section Manager, Region 14 - Corpus Christi

Project Number: 140534

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M4

EMISSION LIMITATIONS AND CONDITIONS OF OPERATION

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. (12/05)
2. No visible emissions shall be allowed from any source permitted to emit particulate matter from this facility; any source found to be emitting any visible emissions shall be considered to be in violation of this condition and shall not be operated until the source in question can be operated with no visible emissions.
3. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.
4. Safety relief valves (1) equipped with an upstream rupture disc and that only discharge to the atmosphere as a result of fire or failure of utilities or (2) that are monitored by the fugitive emission program specified by this permit (28M) are exempt from Special Condition No. 6. (See "Business Confidential" submittal of May 3, 1996, Fugitive Emission Calculation section and letter to TCEQ dated July 21, 2003, for count of relief valves exempted by [2].)

Relief devices exempted from Special Condition No. 6 by (2) shall be monitored by leak-checking at least quarterly using the procedures outlined in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Method 21. Any valves found to be leaking in excess of 500 parts per million (ppm) above background shall be replaced or repaired within 15 days unless a unit shutdown is required. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after the pressure release unless the repair is technically infeasible without a process unit shutdown. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 2

5. Waste gas emitted from the G-1 and G-2 Purge Bins shall be routed to the Small Flare (Emission Point No. [EPN] 705) at least 95 percent of the total operating time. The waste gas may be routed to the vent recovery system for monomer recovery and reuse, or vented directly to the flare with no monomer recovery. The number of hours in a calendar year that the waste gas can be diverted to the Large Flare (EPN 246) from either the G-1 or G-2 Purge Bin vents, shall not exceed 5 percent of the total operating time.

For purposes of determining compliance with this permit condition, the total operating time is defined as the sum of the operating hours in a given calendar year for the G-1 and G-2 Purge Bins.

6. 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. (4/04)
7. This permit authorizes emissions from the Large Flare (EPN 246), the Seed Bed Vents (EPNs 497 and 521), and the Catalyst Wash Pot (EPN 1086) for the following maintenance, start-up, and shutdown activities:

Seed bed transfer into the reaction system
Catalyst deactivation in the catalyst wash pot
G-1 and G-2 reactor purges

These emissions are subject to the maximum allowable emission rates indicated on the MAERT. Any maintenance, start-up, and shutdown activities not in the above list are not authorized by this permit. (4/04)

8. Reactor 1 Seed Bed (EPN 497) shall not vent to the atmosphere for more than 32 hours per year based on a 12-month rolling average. Reactor 2 Seed Bed (EPN 521) shall not vent to the atmosphere for more than 32 hours per year based on a 12-month rolling average. (4/04)
9. No more than 12,500 pounds of catalyst shall be deactivated in the Catalyst Wash Pot (EPN 1086) per year based on a 12-month rolling average. (4/04)

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 3

THROUGHPUT LIMITS

10. Throughput limits for the permitted facility are defined in terms of polyethylene production from each reactor, pounds per year (lbs/yr). Specific limits are disclosed in the "Business Confidential" section of the applicant's submittal dated May 3, 1996.

FEDERAL APPLICABILITY REQUIREMENTS

11. 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 (C-7402 Butene Storage Tank), Polymer Manufacturing (Material Recovery Section and Transfer System), and Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (Material Recovery Section) in 40 CFR Part 60, Subparts A, Kb, and DDD.

12. With the noted exception for EPN 246, Flares (EPNs 705 and 246) 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 stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. 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. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements. Note: EPN 246 is exempt from the maximum exit velocity requirements of 40 CFR § 60.18.

- B. The flare 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. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications
- C. The flare 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 to the flare. (12/05)

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 4

FUGITIVE EMISSIONS MONITORING

13. Piping, Valves, Flanges, Pumps, and Compressors in VOC Service - 28M

- A. These conditions shall not apply (1) where the VOC have an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch, absolute (psia) at 100°F or at maximum process operating temperature if less than 100°F, (2) to tubing size lines (flexible lines equal to or less than 0.5 inch in diameter) and equipment or to non-piping type fittings (swedgelock or ferrule fittings), or (3) where the operating pressure is at least 5 kilopascals (0.725 pound per square inch [psi]) below ambient pressure.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), 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.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Flanges shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.
- 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

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 5

a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

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

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

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, flanges, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 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. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

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

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 6

- J. Fugitive emission monitoring required by an applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternative standards for these regulations.

- K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

14. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28VHP (EPN 1148)

Except as may be provided for in the special conditions of this permit, the following requirements apply to the Ethylene Heating System (EPN 1148):

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) to piping and valves two inches nominal size and smaller or (3) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 7

operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

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

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

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 8

- I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
- J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

SAMPLING AND TESTING

- 15. Required sampling and testing shall be conducted in accordance with the procedures specified in Special Condition No. 17. All fugitive emission testing shall be conducted in accordance with the procedures set out in 40 CFR Part 60, Appendix A, Method 21. Testing required by this condition shall be conducted at least once per quarter.
 - A. Where multiple identical sources may reasonably be expected to have similar emission rates of similar composition, sampling or testing requirements may be fulfilled by sampling or testing a limited number of sources. The permittee shall apply in writing for approval of this alternative. The application shall include information as needed to verify the similarity of the sources.
 - B. Where feasible, emission sampling or testing shall be conducted when the facility is operating at the design maximum production or transfer rate. In order to fulfill sampling

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 9

or testing requirements when the maximum production or transfer rate cannot be achieved, testing shall be conducted at the highest attainable production rate. Additional testing may be required by the permitting authority at such time when higher production or design rates are achieved.

DEMONSTRATION OF COMPLIANCE

16. The permit holder shall grant to TCEQ and EPA confirmed representatives:
 - A. Entry to the premises upon which permitted facilities or other facilities under the permit holder's control is located, or for which any records are required to be kept under the terms and conditions of this permit;
 - B. Access and reproduction rights, at reasonable times, to any records required to be kept under the terms and conditions of this permit or the Act;
 - C. Opportunity to conduct at reasonable times an inspection of (1) any monitoring equipment or monitoring method required by this permit or (2) operations and maintenance activity at the permitted facility; and
 - D. Opportunity to sample at reasonable times any emissions of pollutants.

17. The methods for demonstration of compliance are as summarized (previously "Attachment 2" of Permit Number PSD-TX-118M3):
 - A. Except for the sources excluded by this condition, all other permitted sources of VOC shall be subject to compliance demonstration by Sealed CanGas Chromatograph (GC) Method, Leak Detection and Repair (LDAR), or unit material balances and calculations, as appropriate. The sources excluded from these demonstration techniques are EPNs 495, 496, and 523.
 - B. Subject to the Sealed Can-GC Method (to be conducted quarterly), EPNs 500, 504, 505, 506, 591, 594, and 1052 may be tested as a combined source (Combined Allowables Entry No. 1); EPNs 501, 507, 508, 509, and 1053, may also be tested as a combined source. The Sealed Can-GC Method is outlined in the "Business Confidential" pages of applicant's submittal dated May 3, 1996.

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 10

18. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter.

To ensure compliance with the provisions of 40 CFR § 60.18, the holder of this permit shall operate a continuous analyzer and flow monitor that provides a record of the vent stream composition (total VOC or British thermal unit content) and flow rate to the Small Flare (EPN 705). The analyzer sample point and flow monitor shall be located in the vent stream such that the total vent stream to the flare is analyzed and measured. Hourly average values of the composition and flow rate shall be recorded. For the purpose of determining compliance with the net heating value requirements contained in 40 CFR § 60.18, a three-hour rolling average of the net heating value shall be determined. Records of the hourly average heating value and three-hour rolling average heating value shall be maintained for a period of two years and shall be made available to representatives of the TCEQ and/or EPA upon request. (PSD)

RECORDKEEPING AND REPORTING

19. The facility record shall be comprised of the following:
- A. Polyethylene production from each reactor, lbs/yr (calendar year basis).
 - B. All records required by Special Condition No. 13 (28M LDAR).
 - C. Sum of Operating Time, G-1 and G-2 Purge Bins, hours per year.
 - D. Results of any sampling or testing conducted pursuant to any requirement of this permit.
 - E. Findings of any inspection conducted as authorized by Special Condition No. 16.

These and any other required records shall be established and maintained such that the ability to demonstrate compliance with all authorized short-term and annual emission limits is ensured. These records shall be maintained at the permitted facility for a period of two years after the date they were made. These and all other records required by any previous condition of this permit shall be made available to the TCEQ Executive Director or his representative upon request.

SPECIAL CONDITIONS

Permit Numbers 6141A and PSD-TX-118M3

Page 11

20. All correspondence required by this permit shall be submitted to the TCEQ and EPA. The required compliance correspondence (on a quarterly basis) shall include:
- A. Summary reports in accordance with the VOC protocol specified in Special Condition No. 19. These reports shall contain the following information:
 - EPN 246 (Large Flare) - Tons of VOC emitted per quarter
 - EPN 705 (Small Flare) - Tons of VOC emitted per quarter
 - Combined Entry No. 1 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.
 - Combined Entry No. 2 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.
 - B. Summary reports to indicate periods when either the flare gas analyzer or flow monitor is either out of service or malfunctioning to preclude collection of acceptable data. These periods shall not necessarily indicate departures from compliance with the requirements of this permit.

MAINTENANCE CONDITIONS

21. Emissions of 1-hexene from the Large Flare (EPN 246) due to planned start-up, shutdown, and maintenance activities associated with the G-1, G-2, and G-3 Reactor (Permit Number 18773) are limited to 135 lbs/hr during any one hour period. (4/04)

Dated December 13, 2005

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6141A and PSD-TX-118M3

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. 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 *	
			lb/hr	TPY**
246	Large Flare	NO _x	24.11	3.68
		CO (PSD)	122.87	18.71
		VOC (5)	215.40	37.14
		Al ₂ O ₃	2.28	0.10
246	Large Flare Start-Up, Shutdown, and Maintenance	NO _x	70.84	1.30
		CO	360.93	6.62
		VOC	792.88	14.59
479	No. 2 Silica Activator	Silica/Catalyst Dust	0.01	0.01
480	No. 2 Silica Activator Blow Tank	Silica/Catalyst Dust	0.01	0.01
481	Silica Bin 6	Silica Dust	0.01	
482	Silica Bin 7	Silica Dust	0.01	0.01
(Annual Emission Covers Emission Point Nos. [EPNs] 481 and 482 above)				
483	G-3 Blender Blow Tank	Catalyst Dust	0.01	0.01
		VOC	0.58	0.14
484	Catalyst Bin 25	Catalyst Dust	0.01	
		VOC	0.04	0.01
485	Catalyst Bin 26	Catalyst Dust	0.01	
		VOC	0.04	0.01

EMISSION SOURCE - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
486	Catalyst Bin 27	Catalyst Dust	0.01	
487	Catalyst Bin 28	Catalyst Dust	0.01	0.01
(Annual Emission Covers EPNs 484-487 above)				
488	Middle Catalyst Blow Tank	Catalyst Dust	0.02	
		VOC	0.59	0.15
489	North Catalyst Blow Tank	Catalyst Dust	0.02	
		VOC	2.78	0.52
490	South Catalyst Blow Tank	Catalyst Dust	0.02	
		VOC	0.59	0.15
771	Catalyst Blow Tank	Catalyst Dust	0.02	0.02
		VOC	0.59	0.15
(Annual Emission Covers EPNs 488-90 and 771 above)				
491	G-1 North Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
492	G-1 South Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
493	G-2 North Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
494	G-2 South Catalyst Feeder	Catalyst Dust	0.01	0.01
		VOC	0.82	1.78
495	G-1 Seal System Vent	VOC	0.20	0.88
496	G-2 Seal System Vent	VOC	0.20	0.88

EMISSION SOURCE - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
500	G-1 Fluid Bed Cooler	Polyethylene VOC (See Combined Entry No. 1)	0.1	0.03
501	G-2 Fluid Bed Cooler	Polyethylene VOC (See Combined Entry No. 2)	0.10	0.39
***** (Combined Allowables - Entry No. 1)*****				
500	G-1 Fluid Bed Cooler	VOC	14.48	15.72
504	Resin Bin 101			
505	Resin Bin 102			
506	Resin Bin 103			
591	P-1 Feed Hopper			
594	Pellet Dryer Vent			
1052	No. 1 Make Baghouse			
***** (Combined Allowables - Entry No. 2)*****				
501	G-2 Fluid Bed Cooler	VOC	12.14	10.16
507	Resin Bin 201			
508	Resin Bin 202			
509	Resin Bin 203			
1053	No. 2 Make Baghouse			
502	No. 1 Trim Vent	Polyethylene	0.10	0.01
503	No. 2 Trim Vent	Polyethylene	0.10	0.04
504	Resin Bin No. 101	Polyethylene VOC (See Combined Entry No. 1)	See EPN 506	
505	Resin Bin No. 102	Polyethylene VOC (See Combined Entry No. 1)	See EPN 506	

EMISSION SOURCE - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
506	Resin Bin No. 103	Polyethylene VOC (See Combined Entry No. 1)	0.10	0.32
(Hourly and Annual Particulate Emissions Cover EPNs 504 - 506 above)				
507	Resin Bin No. 201	Polyethylene VOC (See Combined Entry No. 2)	See EPN 509	
508	Resin Bin No. 202	Polyethylene VOC (See Combined Entry No. 2)	See EPN 509	
509	Resin Bin No. 203	Polyethylene VOC (See Combined Entry No. 2)	0.1	0.41
(Hourly and Annual Particulate Emissions Cover EPNs 507-509 above)				
510	No. 1 Transfer Conveyor Separator	Polyethylene	0.15	
511	No. 2 Transfer Conveyor Separator	Polyethylene	0.15	
768	Dedicated Transfer System	Polyethylene	0.15	0.73
(Annual Emission Covers EPNs 510, 511, and 768 above)				
512	No. 1 Loading Conveyor Separator	Polyethylene	0.15	
513	No. 2 Loading Conveyor Separator	Polyethylene	0.15	0.48
(Annual Emission Covers EPNs 512 and 513 above)				
514	Loading Additive Transfer System	Additive Dust Talc	0.01 0.13	0.01 0.01

EMISSION SOURCE - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
515	No. 1 Loading Additive Hopper	Additive/Talc Dust	0.01	
516	No. 2 Loading Additive Hopper	Additive/Talc Dust	0.01	0.04
(Annual Emission Covers EPNs 515 and 516 above)				
521	G-2 Seed Bed Vent	Polyethylene Dust	4.38	0.07
522	Unit Fugitives Block 26 (4) (5)	VOC	11.74	49.17
523	Analyzer Vents	VOC	0.21	0.89
524	Pelleted Master Batch Baghouse	Polyethylene/Additive	0.02	0.01
525	Granular Master Batch Baghouse	Polyethylene/Additive	0.04	0.01
590	P1 Trim Bin Filter	Polyethylene	0.10	0.03
591	P1 Feed Hopper Filter	Polyethylene/Additive VOC (See Combined Entry No. 1)	0.01	0.05
592	P1 Additive (Granular) Filter	Additive Dust	0.01	0.01
592FF	P1 Feeder Filter B	Additive Dust	0.13	0.05
593	P1 Additive (Pelleted) Filter	Additive Dust	0.01	0.01
593FF	P1 Feeder Filter A	Additive Dust	0.13	0.05
594	P1 Pellet Dryer Exhaust	Polyethylene VOC (See Combined Entry No. 1)	0.5	1.2
595	P1 Elutriator Filter	Polyethylene Dust	0.05	0.12

EMISSION SOURCE - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1090	G-1 Purge Bin Analyzer	VOC	0.01	0.01
1148	Ethylene Heating System Fugitives (4)	VOC	0.99	4.32

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.
- (3) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1.
Al₂O₃ - aluminum oxide
SO₂ - sulfur dioxide
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) 0.2 ton per year of VOC are authorized through Permit by Rule (PBR) 43990. The PBR has not been voided.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day ___ Days/week ___ Weeks/year ___ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated December 13, 2005

RLP

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 23, 2005

Mr. Gerald Killian
Environmental, Health, and Safety Delivery Leader
Union Carbide Corporation
P.O. Box 186
Port Lavaca, Texas 77979

RECEIVED

MAR 14 2006

TCEQ
CENTRAL FILE ROOM

Re: Permit Amendment and Renewal
Permit Numbers: 6361 and PSD-TX-118M4
Chemicals and Plastics Manufacturing Facility
Seadrift, Calhoun County
Regulated Entity Number: RN102181526
Customer Reference Number: CN601688781
Account Number: CB-0028-T

Dear Mr. Killian:

This is in response to your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) and Form PI-1R (General Application for Air Permit Renewals) concerning the proposed amendment and renewal of Permit Number 6361. We understand that you propose to update representations made in prior permit applications with respect to the composition of various waste gas streams from existing emission sources.

This will acknowledge that your application for the above-referenced amendment and renewal is technically complete as of November 17, 2005. In accordance with Title 30 Texas Administrative Code (30 TAC) § 116.116(b), and based on our review, Permit Number 6361 is hereby amended in accordance with your proposal. This information will be incorporated into the existing permit file.

Also, in accordance with 30 TAC § 116.314(a), and based on our review, your permit is hereby renewed. Enclosed is a permit for your facility. Also enclosed are new conditions and a maximum allowable emission rates table. We will appreciate you carefully reviewing the conditions of the permit and assuring that all requirements are consistently met.

This permit will be in effect for ten years from the date of approval (Commission's final decision). If this permit is appealed and the permittee does not commence any action authorized by this permit during judicial review, the term will not begin until judicial review is concluded.

Mr. Gerald Killian
Page 2
November 23, 2005

Re: Permit Numbers: 6361 and PSD-TX-118M4

Please reference the Texas Commission on Environmental Quality (TCEQ) air account number, regulated entity reference number (RN), and customer reference number (CN) included in this document in all future correspondence. Before the Central Registry program began, the TCEQ assigned air account numbers. In the Central Registry computer application, the RN is a unique number assigned to the facility (if portable) or site (if permanent), and the CN is a unique number assigned to the company or corporation and applies to all facilities and sites owned or operated by the company or corporation.

Thank you for your cooperation in sending us the information necessary to evaluate your operations and for your commitment to air pollution control. If you have any questions, please contact Ms. Robin Patrick at (512) 239-4786 or write to Texas Commission on Environmental Quality, Office of Permitting, Remediation, and Registration, Air Permits Division (MC-163), P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,



for Glenn Shankle, Executive Director
Texas Commission on Environmental Quality

GS/RLP/bis

Enclosures

cc: Air Section Manager, Region 14 - Corpus Christi

Project Numbers: 116563 and 111082

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



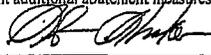
AIR QUALITY PERMIT
A PERMIT IS HEREBY ISSUED TO
Union Carbide Corporation
AUTHORIZING THE CONTINUED OPERATION OF
Chemicals and Plastics Manufacturing Facility
LOCATED AT Seadrift, Calhoun County, Texas
LATITUDE 20° 30' 38" LONGITUDE 096° 46' 25"



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 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% 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 to the Office of Permitting, Remediation, and Registration 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)]
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 § 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 are 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 be appealed pursuant to 30 TAC § 50.139.
12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
13. 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(e)]
14. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. 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.

PERMIT 6361

Date: November 23, 2005



 Glenn Shankle
 Executive Director
 Texas Commission on Environmental Quality

SPECIAL CONDITIONS

Permit Numbers 6361 and PSD-TX-118M4

MAXIMUM ALLOWABLE EMISSION RATES

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.

OPERATING PARAMETERS

2. The catalyst bins associated with Emission Point Nos. (EPNs) 1008, 1010, and 467 through 470 are limited to the following throughput limits based on a 12-month rolling average:

EPN 467	200,000 pounds per year (lbs/yr)
EPN 468	180,000 lbs/yr
EPN 469	300,000 lbs/yr
EPN 470	300,000 lbs/yr
EPN 1008	600,000 lbs/yr
EPN 101	600,000 lbs/yr

3. A. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum.
B. Annual throughput of the Liquid Catalyst (isopentane) Storage Tank (EPN 436) shall not exceed 338,000 gallons per year on a 12-month rolling basis.
4. All tanks in the 1998 Polyolefins Catalyst Precursor Project shall be pressurized (≥ 5 pounds per square inch [psi] gauge), and have a capacity of less than 10,000 gallons. Tanks shall vent to a flare meeting the requirements contained in Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18).

The tanks that are included in the 1998 Polyolefins Catalyst Precursor Project are: Ethanol (C-3092), Isopentane (C-3091), Monochlorobenzene (C-3090), Aliphatic Alcohol (C-3095), Waste Storage Tank (C-3086), Spent Monochlorobenzene (C-3082) and Spent Isopentane (C-3084).

5. The EPR Flare (EPN 1100) and the Large Poly Flare (EPN 246) shall both be designed and operated in accordance with 40 CFR § 60.18 including specifications

of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. If necessary to insure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

6. The catalyst precursor particulate matter emission sources (EPNs 1143, 1145, and 1146) shall be filtered prior to atmospheric discharge. Particulate matter exiting from these filters shall be at or below the concentration of 0.01 grain/dry standard cubic feet.
7. Catalyst precursor shall be loaded into containers and transported off-site for further processing unless the owner/operator obtains additional authorization by standard exemption or other permit action.
8. This permit authorizes emissions from the Seal Pot (EPN 436) and from the ME Drumline Washer (EPN 1130) for the following maintenance, start-up, and shutdown activities:
 - Small process line flushes due to start-up, shutdown, and maintenance activities. Process line flushes that are routed to the Seal Pot (EPN 436) may only occur three hours per year.
 - ME Drumline Washing which is limited to 730 batches per year.

These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance, start-up, and shutdown activities not in the above list are not authorized by this permit.

FUGITIVE MONITORING PROGRAM

9. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28M
 - A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch absolute (psia) at 100°F or at maximum process operating temperature if less than 100°F or (2) for vent lines to the flare or to flexible tubing lines equal to or less than 0.5 inch in diameter, or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
 - 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

SPECIAL CONDITIONS
Permit Numbers 6361 and PSD-TX-118M4
Page 3

valves such that fugitive emission monitoring is rendered impractical.

- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 1150), shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

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

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

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing

SPECIAL CONDITIONS
Permit Numbers 6361 and PSD-TX-118M4
Page 4

to vent control systems kept in good working order.
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, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 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. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the Texas Commission on Environmental Quality (TCEQ) Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
- I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations.

- K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

SPECIAL CONDITIONS
Permit Numbers 6361 and PSD-TX-118M4
Page 5

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

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment associated with the G-Mix Blender Fugitives (EPN 766-3A):

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

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

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.
- I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or a

SPECIAL CONDITIONS

Permit Numbers 6361 and PSD-TX-118M4

Page 7

designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

- J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- K. Alternative monitoring frequency schedules of 30 TAC § 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

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

RECORDKEEPING

- 11. A record of A through D must be maintained for EPNs 436, 1008, 1010, and 467 through 470 to demonstrate compliance with Special Condition No. 1. A record of item E must be maintained for EPNs 1100, and 1140 through 1146 to demonstrate compliance with Special Condition No. 1. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request.
 - A. Catalyst throughput in lb/yr.
 - B. Logs of replacement or repair of filters used for particulate emission control.
 - C. The liquid catalyst (isopentane) tank filling date and volume filled.
 - D. The liquid catalyst (isopentane) annual throughput in gallons.
 - E. Catalyst precursor throughput in lb/yr.

SPECIAL CONDITIONS
Permit Numbers 6361 and PSD-TX-118M4
Page 8

- F. The dates and duration of all process line flushes to the seal pot that occur during maintenance activities.

Dated November 23, 2005

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 6361 and PSD-TX-118M4

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. 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 *	
			lb/hr	TPY**
436	Liquid Catalyst Storage Tank Routine Operations	VOC (5)	114.64	3.53
436	Liquid Catalyst Storage Tank Maintenance, Start-Up, and Shutdown Activities	VOC (5)	1.32	0.01
436F	Fugitives from Liquid Catalyst Tank (4)	VOC (5)	0.49	2.14
467	Catalyst Bin 21	Catalyst Dust (6)	0.12	0.01
468	Catalyst Bin 22	Catalyst Dust (6) VOC	0.12 0.04	0.01 0.14
469	Catalyst Bin 23	Catalyst Dust (6) VOC	0.24 0.04	0.02 0.14
470	Catalyst Bin 24	Catalyst Dust (6) VOC	0.24 0.04	0.02 0.14
1008	Catalyst Bin 32 Loading	Catalyst Dust (6)	0.34	0.05
1010	Catalyst Cylinder Loading	Catalyst Dust (6)	0.14	0.03

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1100	EPR Unit Flare	VOC, other	42.33	6.43
		Toluene	0.01	0.01
		Chlorobenzene	3.17	0.60
		Titanium Tetrachloride	0.01	0.01
		Aliphatic Alcohol or Glycol Ethers	0.01	0.01
		n-Hexanol	0.09	0.01
		o-Cresol	0.01	0.01
		NO _x	8.11	1.22
		CO	69.54	10.47
		HCl	51.48	9.68
		SO ₂	0.13	0.02
1140	Fugitives (4) (7)	VOC, other	1.67	7.23
		Toluene	0.01	0.01
		Chlorobenzene	0.86	3.72
		o-Cresol	0.11	0.45
		Titanium Tetrachloride	0.10	0.42
		Aliphatic Alcohol or Glycol Ethers	0.18	0.77
		HCl	0.01	0.04
		Ethylene Glycol	0.03	0.12
1143	Cylinder Loading Filter	PM ₁₀	0.01	0.01
		Isopentane	0.08	0.02
		Chlorobenzene	0.02	0.01
1144	Truck Loading Fugitives (4)	VOC, other	1.93	0.05
		Toluene	0.01	0.01
		Chlorobenzene	0.04	0.01
		o-Cresol	0.01	0.01
		Titanium Tetrachloride	0.01	0.01
		Aliphatic Alcohol or Glycol Ethers	0.01	0.01
1145	Additive Dump Hopper Filter	PM ₁₀	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1146	Additive Receiver Filter	PM ₁₀	0.01	0.05
226	Silica Preheater	Catalyst Dust (6)	0.10	0.02
227	No. 1 Activator	Catalyst Dust (6)	0.01	0.01
		VOC	7.23	0.99
		Ammonia	0.30	0.04
228	No. 1 Activator Blow tank	Catalyst Dust (6)	0.04	0.01
229	Filter Bins 1 through 5	Catalyst Dust (6)	0.14	0.06
230	G-5 Blender Blow Tank	Catalyst Dust (6)	0.12	0.02
		VOC	0.02	0.07
231	Filter Bins 11 through 15	Catalyst Dust (6)	0.09	0.01
232	Filter Bins 16 Through 20	Catalyst Dust (6)	0.13	0.02
		VOC	0.10	0.02
766-3A	G-Mix Fugitives (4)	VOC	1.00	0.57
703	Catalyst Preparation Fugitives (4)	Catalyst Dust (6)	0.03	0.14
772	No. 3 Activator	Catalyst Dust (6)	0.03	0.01
		VOC	15.80	2.38
773	No. 3 Activator Blow Tank	Catalyst Dust (6)	0.02	0.01
246	Large Poly Flare	VOC	38.22	31.75
		NO _x	2.63	2.12
		CO	13.41	10.81
		Ammonia	0.02	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
1161	Silica Dehydrator	PM	0.01	0.02
		VOC	0.33	0.10
1130	ME Drum Liner Washing	VOC	2.67	1.98
1055	Silica 958 Bin Filter	Silicon Dioxide Dust	0.01	0.01
533	Catalyst Loading Filter	Silicon Dioxide Dust	0.01	0.01

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan
- (2) Specific point source names. 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. Speciated VOC as indicated.
- NO_x - oxides of nitrogen.
- CO - carbon monoxide
- SO₂ - sulfur dioxide
- HCl - hydrogen chloride
- PM - particulate matter suspended in the atmosphere including PM₁₀.
- PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) VOC as Isopentane.
- (6) Catalyst dust is particulate matter less than 10 microns which contains as much as 100 weight percent amorphous silica and not more than 0.45 weight percent hexavalent chromium.
- (7) 0.24 ton per year (tpy) VOC, 0.46 tpy chlorobenzene, and 0.07 tpy o-Cresol are authorized through Permits by Rule Registration Numbers 42461, 43990, 51164, and 49720. These permits by rule have not been voided.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Permit Numbers 6361 and PSD-TX-118M4
Page 5

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Hrs/day _____ Days/week _____ Weeks/year _____ or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 23, 2005

Statement of Basis of the Federal Operating Permit

Union Carbide Corporation

Site/Area Name: L.P. Polyethylene & Catalyst Units

Physical location: 7501 State Hwy 185 N

Nearest City: Seadrift

County: Calhoun

Permit Number: O2032

Project Type: Minor Revision

Standard Industrial Classification (SIC) Code: 2869

SIC Name: Industrial Organic Chemicals,

This Statement of Basis sets forth the legal and factual basis for the draft changes to the permit conditions resulting from the minor revision project in accordance with 30 TAC §122.201(a)(4). The applicant has submitted an application for a minor permit revision per §§ 122.215-217. This document may include the following information:

- A description of the facility/area process description;
- A description of the revision project;
- A basis for applying permit shields;
- A list of the federal regulatory applicability determinations;
- A table listing the determination of applicable requirements;
- A list of the New Source Review Requirements;
- The rationale for periodic monitoring methods selected;
- The rationale for compliance assurance methods selected;
- A compliance status; and
- A list of available unit attribute forms.

Prepared on: September 25, 2009

Revised on: June 25, 2010

OPERATING PERMIT BASIS OF DETERMINATION

DESCRIPTION OF REVISION PROJECT

The applicant submitted an OP-2 Revision Application requesting the incorporation of a flare, Unit ID 1100, along with an OP-SUMR, a OP-UA7 listing unit attributes for 30 TAC Chapter 111, Visible Emissions and 40 CFR Part 63, Subpart A, and properly signed OP-CRO1 to certify the submission.

During the course of the application review the applicant amended the revision request to include the header that feeds the flare, VENT1100, and include MACT FFFF requirements for the header.

The flare is being transferred from another permit area at this site, O2034, since this permit area has been demolished. The applicant has requested to void permit O2034 once the transfers into permit O2032 are complete.

The applicant also mentioned that he believed that MACT requirements were also applicable to flares, 246, 705, and 1100 so it was decided to add high level requirements under MACT FFFF for them as well.

Changes made as a result of the EPA objections

EPA Objected to issuance of the draft permit on November 25, 2009.

1. Objection to the incorporation by reference of PSDTX118M4;
Response: copies of the NSR permits associated with affected PSD permit, PSDTX118M4, were attached to the draft FOP as an Attachment B.
2. Objection to the incorporation of Qualified Facility permits 18773 and 6141A into the Title V permit;
Response: no changes were made to the draft permit but explanation was provided in the Response to the Objection.
3. Objection to General Recordkeeping Provision;
Response: clarification language was added to the General Terms and Conditions.
4. Objection to Special Permit Condition 3.
Response: the applicant confirmed there were no stationary vents that were subject to Special Condition 3.A, so the term was deleted. The subsequent Special Conditions were renumbered.

PERMIT AREA PROCESS DESCRIPTION

The Low Pressure Polyethylene (LPPE) facility consists of five (5) process lines: G1, G2, G3 (collectively called LP-2); and G1750 and G5000 (collectively called LP-1). New Source Performance Standard DDD (NSPS DDD) is the primary regulation governing polyethylene (PE) production, which breaks down the process into five process sections:

- 1) Raw Material Preparation;
- 2) Polymerization Reaction;
- 3) Material Recovery;
- 4) Product Finishing; and
- 5) Product Storage

Catalyst Manufacturing facilities operate along with the LPPE facility. Three key catalyst production lines produce a variety of catalysts for use in the LPPE facility, in other polymer production facilities at Seadrift, and for sale off-site.

Additional FOPs at the Seadrift site: O1613, O2025, O2026, O2027, O2028, O2029, O2030, O2031, O2034, O2035

MAJOR SOURCE POLLUTANTS

The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, PM, NOX, HAPS, CO
------------------	------------------------

The permit contains terms and conditions that specify the area-wide applicable requirements and a table of applicable requirements for specific emission units in the application area. The Special Terms and Conditions contain both generic and site-wide requirements. The generic requirements are general monitoring, recordkeeping, reporting requirements that do not apply to specific sources. Site-wide requirements apply uniformly to a group of emission sources such as source-wide opacity limits. These requirements are streamlined into the Special Terms and Condition for brevity. The streamlining of broadly applicable requirements was developed in accordance with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995. Applicable requirements that do not apply uniformly (i.e. are specific to each emission source) appear in the FOP's Applicable Requirement Summary table.

The "application area" consists of the emission units and that portion of the site included in the application and this permit. When there is only one area for the site, then the application information and permit will include the site.

READING THE STATE OF TEXAS'S FEDERAL OPERATING PERMIT

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as "applicable requirements") that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to

operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
 - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
 - Additional Monitoring Requirements
 - New Source Review Authorization Requirements
 - Compliance Requirements
 - Protection of Stratosphere Ozone
 - Permit Location
 - Permit Shield (30 TAC § 122.148)
- Attachments
 - Applicable Requirements Summary
 - Unit Summary
 - Applicable Requirements Summary
 - Additional Monitoring Requirements
 - Permit Shield
 - New Source Review Authorization References
 - Compliance Plan
 - Alternate Work Requirements
- Appendix A
 - Acronym list
- Appendix B
 - Copies of major NSR authorizations applicable to the units covered by this permit have been included in the Appendix, to ensure that all interested persons can access those authorizations.

General Terms and Conditions

The General Terms and Conditions are boiler plate type paragraphs, meaning that they appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. A recently added second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 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. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. As an example, the TCEQ has designated specific requirements of 30 TAC Chapter 111, such as the opacity limits for stationary vents, as site-wide requirements. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the "index number," detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception-Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied

for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Appendix B

Copies of major NSR authorizations applicable to the units covered by this permit have been included in the Appendix, to ensure that all interested persons can access those authorizations.

SPECIAL TERMS AND CONDITIONS

The permit contains terms and conditions that specify the area-wide applicable requirements and a table of applicable requirements for specific emission units in the application area. The Special Terms and Conditions contain both generic and site-wide requirements. The generic requirements are general monitoring, recordkeeping, and reporting requirements that do not apply to specific sources. Site-wide requirements apply uniformly to a group of emission sources such as source-wide opacity limits. These requirements are streamlined into the Special Terms and Conditions for brevity. The streamlining of broadly applicable requirements was developed in accordance with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995. Applicable requirements that do not apply uniformly (i.e. are specific to each emission source) appear in the FOP's Applicable Requirement Summary table.

Sources subject to 30 TAC Chapter 111, Subchapter A, Division 1: Visible Emissions

Title 30 Administrative Code (30 TAC) § 111.111(a) requires that, "no person may cause, suffer, allow, or permit visible emissions from any source, except as follows" Paragraphs 30 TAC § 111.111(a)(1)-(8) specify specific opacity or visible emissions limits for certain types of sources such as stationary vents, structures, and other sources. Visible emissions are defined as particulate or gaseous matter that can be detected by the human eye. Contributions from uncombined water (i.e. steam) are not included in determining compliance with the visible emissions requirements as stated in 30 TAC § 111.111(b).

Requirements for stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) are covered in the permit's Special Terms and Conditions. Stationary vents are limited, over a six-minute average, either to 30% opacity or 20% opacity if constructed after January 31, 1972 as required by 30 TAC § 111.111(a)(1)(A) or § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into

this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

The site does not have any vents constructed prior to January 31, 1972, therefore, no vents are subject to the 30% opacity requirement of 30 TAC § 111.111(a)(1)(A). All other vents at the site are subject to 20% opacity, as noted in the revised Special Condition 3, which is a site-wide term and condition, as allowed in the *White Paper for Streamlined Development of Part 70 Permit Applications*, July 10, 1995. The condition was revised to state the following:

“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, 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:”

Periodic monitoring is specified in the Special Terms and Conditions for sources subject to 30 TAC Chapter 111 to verify compliance with the appropriate opacity limit. The emission sources specified in the permit's Special Terms and Conditions are not capable or expected to produce visible emissions during normal operation. These sources may include, but are not limited to, passive ventilation vents, vents from natural gas-fired combustion sources, and vents that emit VOCs. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC §§ 111.111(a)(1)(A)-(B), (a)(7)(A) and (a)(8)(A). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Vents from emission sources that are anticipated to emit visible emissions during normal operations (such as coal fired boilers), based on the nature of the emission unit or having a flowrate of 100,000 acfm or greater subject to 30 TAC § 111.111(a)(1)(C), are required to be monitored more frequently than once every calendar quarter and are not covered under the permit's Special Terms and Conditions. These vents will be identified in the Applicable Requirements Summary and the Periodic Monitoring or CAM Summaries as appropriate.

Additional FOPs: O1613, O2025, O2026, O2027, O2028, O2029, O2030, O2031, O2034, O2035

FEDERAL REGULATORY APPLICABILITY DETERMINATIONS

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	Yes
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	No
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	Yes
CAIR (Clean Air Interstate Rule)	No

INSIGNIFICANT ACTIVITIES

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OPREQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.

9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

DETERMINATION OF REVISED APPLICABLE REQUIREMENTS

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at http://www.tceq.state.tx.us/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in

the column entitled “Basis of Determination.” Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at http://www.tceq.state.tx.us/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column “Changes and Exceptions to RRT.” If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word “None” will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled “Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected.”

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled “Basis for Applying Permit Shields” specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

DETERMINATION OF APPLICABLE REQUIREMENTS

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
1100	40 CFR Part 63, Subpart FFFF	63FFFF-BATCH	UNIT TYPE = CONTROL DEVICE	No DSS for this type of unit. A custom requirements determination was created.
1100	40 CFR Part 63, Subpart FFFF	63FFFF-STREAM	UNIT TYPE = CONTROL DEVICE	No DSS for this type of unit. A custom requirements determination was created.
246	40 CFR Part 63, Subpart FFFF	63FFFF	UNIT TYPE = CONTROL DEVICE	No DSS for this type of unit. A custom requirements determination was created.
705	40 CFR Part 63, Subpart FFFF	63FFFF	UNIT TYPE = CONTROL DEVICE	No DSS for this type of unit. A custom requirements determination was created.
530	30 TAC Chapter 115, Storage of VOCs	R5112	<p>ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized</p> <p>30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe</p> <p>30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate</p> <p>TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia</p> <p>30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p>	
GRP-TK2	30 TAC Chapter 115, Storage of VOCs	R5112	<p>ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized</p> <p>30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS)</p> <p>30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate</p> <p>TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia</p> <p>30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare</p>	
GRP-TK3	30 TAC Chapter 115, Storage of VOCs	R5112	<p>ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized</p> <p>30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS)</p> <p>30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate</p> <p>TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia</p> <p>30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons</p> <p>30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
GRP-TK4	30 TAC Chapter 115, Storage of VOCs	R5112	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare	
GRP-TK5	30 TAC Chapter 115, Storage of VOCs	R5112	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 25,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare	
LP1RRICATK	30 TAC Chapter 115, Storage of VOCs	R5112	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare	
LP1RTFT2TK	30 TAC Chapter 115, Storage of VOCs	R5112	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. REG V - STORAGE VESSELS CONSTRUCTION DATE = Date not determined since 30 TAC § 115.117(c)(3) exemption is not utilized 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons	
PRECLOAD	30 TAC Chapter	R5211	30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = VAPOR CONTROL SYSTEM WITH A	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
	115, Loading and Unloading of VOC		FLARE 30 TAC CHAPTER 115 (REG V) FACILITY TYPE = OTHER FACILITY TYPE ALTERNATE CONTROL REQUIREMENT (ACR) [REG V] = NO ALTERNATE CONTROL REQUIREMENTS ARE BEING UTILIZED VAPOR TIGHT = ALL LIQUID AND VAPOR LINES FOR THIS TRANSFER OPERATION ARE EQUIPPED WITH FITTINGS WHICH MAKE VAPOR-TIGHT CONNECTIONS THAT CLOSE AUTOMATICALLY WHEN DISCONNECTED PRODUCT TRANSFERRED = VOLATILE ORGANIC COMPOUNDS (VOC) OTHER THAN LPG, CRUDE OIL, CONDENSATE AND GASOLINE TRANSFER TYPE = ONLY LOADING TRUE VAPOR PRESSURE [REG V] = TVP GREATER THAN OR EQUAL TO 1.5 PSIA (OTHER THAN BEAUMONT/PORT ARTHUR DALLAS/FORT WORTH EL PASO HOUSTON/GALVESTON AREAS) DAILY THROUGHPUT [REG V] = DAILY THROUGHPUT NOT DETERMINED, 115.217(A)(5) EXEMPTION NOT USED CONTROL OPTIONS = VAPOR CONTROL SYSTEM THAT MAINTAINS A CONTROL EFFICIENCY OF AT LEAST 98%	
1100	30 TAC Chapter 111, Visible Emissions	R1111	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions.	
1100	40 CFR Part 63, Subpart A	63A-AIRASST	REQUIRED UNDER 40 CFR 63 = Flare is required by a Subpart under 40 CFR Part 63. HEAT CONTENT SPECIFICATION = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). FLARE ASSIST TYPE = Air assisted	
1100	40 CFR Part 63, Subpart A	63A-NOASST	REQUIRED UNDER 40 CFR 63 = Flare is required by a Subpart under 40 CFR Part 63. HEAT CONTENT SPECIFICATION = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). FLARE ASSIST TYPE = Non-assisted FLARE EXIT VELOCITY = Flare exit velocity is less than 60 ft/s (18.3 m/sec)	
246	30 TAC Chapter 111, Visible Emissions	R1111	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions. ALTERNATE OPACITY LIMITATION [REG I] = Not complying with an alternate opacity limit under 30 TAC § 111.113.	
705	30 TAC Chapter 111, Visible Emissions	R1111	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions. ALTERNATE OPACITY LIMITATION [REG I] = Not complying with an alternate opacity limit under 30 TAC § 111.113.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
705	40 CFR Part 60, Subpart A	60A-1	<p>SUBJECT TO 40 CFR 60.18 = Flare is subject to 40 CFR § 60.18.</p> <p>ADHERING TO HEAT CONTENT SPECIFICATIONS = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4).</p> <p>FLARE ASSIST TYPE [NSPS A, NESHAP A, AND/OR MACT A] = Air-assisted</p>	
705	40 CFR Part 60, Subpart A	60A-2	<p>SUBJECT TO 40 CFR 60.18 = Flare is subject to 40 CFR § 60.18.</p> <p>ADHERING TO HEAT CONTENT SPECIFICATIONS = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4).</p> <p>FLARE ASSIST TYPE [NSPS A, NESHAP A, AND/OR MACT A] = Non-assisted</p> <p>FLARE EXIT VELOCITY [NSPS A, NESHAP A, AND/OR MACT A] = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec).</p> <p>HEATING VALUE OF GAS [NSPS A, NESHAP A, AND/OR MACT A] = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).</p>	
LPPEFUG	40 CFR Part 60, Subpart DDD	60DDD-1	<p>FLANGES AND OTHER CONNECTORS (ANY SERVICE) [NSPS DDD] = FLANGES OR CONNECTORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>FLARE = USING A FLARE FOR CONTROL</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>OPEN-ENDED VALVES OR LINES (ANY SERVICE) [NSPS DDD] = OPEN-ENDED VALVES OR LINES IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE [NSPS DDD] = PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>PUMPS IN LIGHT LIQUID SERVICE [NSPS DDD] = PUMPS IN LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>VALVES IN GAS/VAPOR OR LIGHT LIQUID SERVICE [NSPS DDD] = VALVES IN GAS/VAPOR OR LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>VAPOR RECOVERY SYSTEM = NOT USING A VAPOR RECOVERY SYSTEM FOR CONTROL</p> <p>CONTINUOUS PROCESS [NSPS DDD] = THE AFFECTED FACILITY IS A CONTINUOUS PROCESS</p> <p>EEL = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--FLANGES AND OTHER CONNECTORS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--OPEN-ENDED VALVES OR LINES [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--PUMPS LIGHT LIQUID SERVICE [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--VALVES GAS/VAPOR, LIGHT LIQUID SVC [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>40 CFR 60 (NSPS) SUBPART DDD CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = AFTER JANUARY 10, 1989</p> <p>40 CFR 60 (NSPS) SUBPART DDD DESIGN CAPACITY = FACILITY HAS DESIGN CAPACITY TO</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>PRODUCE GREATER THAN OR EQUAL TO 1,000 MEGAGRAMS PER YEAR</p> <p>COMPLYING WITH § 60.482-2 = YES</p> <p>COMPLYING WITH § 60.482-6 = YES</p> <p>COMPLYING WITH § 60.482-7 = YES</p> <p>COMPLYING WITH § 60.482-8 = YES</p> <p>COMPLYING WITH §60.482-10 = YES</p> <p>CLOSED VENT SYSTEMS AND CONTROL DEVICES (ANY SERVICE) [NSPS DDD] = CLOSED VENT SYSTEM AND CONTROL DEVICES IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>COMPLYING WITH § 60.482-8 = YES</p> <p>COMPRESSORS (ANY SERVICE) [NSPS DDD] = COMPRESSORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>EQUIPMENT IN VACUUM SERVICE = NO</p> <p>PUMPS IN HEAVY LIQUID SERVICE [NSPS DDD] = PUMPS IN HEAVY LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>VALVES IN HEAVY LIQUID SERVICE [NSPS DDD] = VALVES IN HEAVY LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>ENCLOSED COMBUSTION DEV. = NOT USING AN ENCLOSED COMBUSTION DEVICE FOR CONTROL</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)-[NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--COMPRESSORS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--PUMPS HEAVY LIQUID SERVICE [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--VALVES HEAVY LIQUID SERVICE [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>SAMPLING CONNECTION SYSTEMS (ANY SERVICE) [NSPS DDD] = SAMPLING CONNECTION SYSTEMS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT.</p> <p>EQUIVALENT EMISSION LIMITATION (EEL)--SAMPLING CONNECTION SYSTEMS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).</p> <p>COMPLYING WITH § 60.482-3 = YES</p> <p>COMPLYING WITH § 60.482-8 = YES</p> <p>COMPLYING WITH §60.482-10 = YES</p> <p>COMPLYING WITH § 60.482-5 = YES</p>	
LPPEFUG	40 CFR Part 63, Subpart FFFF	63FFFF	EXISTING SOURCE = FUGITIVE UNIT CONTAINS EQUIPMENT IN AN EXISTING MISCELLANEOUS CHEMICAL PROCESSING UNIT	
GRP-VNT1	30 TAC Chapter 115, Vent Gas Controls	R5121	<p>VENT TYPE [REG V] = Vent gas stream emissions of the specified classes of VOCs including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C and above).</p> <p>COMBINED 24-HOUR VOC WEIGHT [REG V] = Combined VOC weight is less than or equal to 100</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			pounds (45.4 kg).	
GRP-VNT2	30 TAC Chapter 115, Vent Gas Controls	R5121	VENT TYPE [REG V] = Vent gas stream emissions of the specified classes of VOCs including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C and above). VOC CONCENTRATION [REG V] = VOC concentration is less than 30,000 ppmv.	
VENT1100	30 TAC Chapter 115, Vent Gas Controls	R5121	ALTERNATE CONTROL REQUIREMENT [REG V] = Alternate control is not used. CHAPTER 115 DIVISION = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source. COMBUSTION EXHAUST = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2. CONTROL DEVICE TYPE [REG V] = Smokeless flare VENT TYPE [REG V] = Vent gas stream emissions of the specified classes of VOCs including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C and above). COMBINED 24-HOUR VOC WEIGHT [REG V] = Combined VOC weight is greater than 100 pounds (45.4 kg). VOC CONCENTRATION [REG V] = VOC concentration is greater than or equal to 30,000 ppmv.	
VENT1100	40 CFR Part 63, Subpart FFFF	63FFFF-BATCH	STREAM GROUP BATCH PROCESS VENT = Stream is a batch process vent stream determined to be Group 1.	
VENT1100	40 CFR Part 63, Subpart FFFF	63FFFF-STREAM	STREAM GROUP CONTINUOUS PROCESS VENT = Continuous vent stream is a Group 1 stream or is a combined vent stream containing a Group 1 continuous process vent stream and not containing a Group 1 batch process vent stream.	
VENT246	30 TAC Chapter 115, Vent Gas Controls	R5121	ALTERNATE CONTROL REQUIREMENT [REG V] = Alternate control is not used. CONTROL DEVICE TYPE [REG V] = Smokeless flare VENT TYPE [REG V] = Vent gas stream emissions of the specified classes of VOCs including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C and above).	
VENT246	40 CFR Part 63, Subpart FFFF	63FFFF-STREAM	STREAM GROUP CONTINUOUS PROCESS VENT = Continuous vent stream is a Group 1 stream or is a combined vent stream containing a Group 1 continuous process vent stream and not containing a Group 1 batch process vent stream.	
VENT705	30 TAC Chapter 115, Vent Gas Controls	R5121	ALTERNATE CONTROL REQUIREMENT [REG V] = Alternate control is not used. CONTROL DEVICE TYPE [REG V] = Smokeless flare VENT TYPE [REG V] = Vent gas stream emissions of the specified classes of VOCs including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C and above).	
VENT705	40 CFR Part 63, Subpart FFFF	63FFFF-STREAM	STREAM GROUP CONTINUOUS PROCESS VENT = Continuous vent stream is a Group 1 stream or is a combined vent stream containing a Group 1 continuous process vent stream and not containing a Group 1 batch process vent stream.	
PROFINSHG3	40 CFR Part 60, Subpart DDD	60DDD-1	CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989 UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR) ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3' EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10% EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV) 'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROFINSHG3	40 CFR Part 60, Subpart DDD	60DDD-2	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989 UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR) ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3' EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS LESS THAN 0.10% EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRCV	40 CFR Part 60, Subpart DDD	60DDD-1	<p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRCV	40 CFR Part 60, Subpart DDD	60DDD-2	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR)</p> <p>ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3'</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%</p> <p>EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRVG1	40 CFR Part 60, Subpart DDD	60DDD-1	<p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRVG1	40 CFR Part 60, Subpart DDD	60DDD-2	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR)</p> <p>ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3'</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%</p> <p>EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRVG2	40 CFR Part 60, Subpart DDD	60DDD-1	<p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROMATRVG2	40 CFR Part 60, Subpart DDD	60DDD-2	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR)</p> <p>ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3'</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%</p> <p>EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROREACTG3	40 CFR Part 60, Subpart DDD	60DDD-1	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)</p> <p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3'</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROREACTG3	40 CFR Part 60, Subpart DDD	60DDD-2	<p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS LESS THAN 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR)</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>ORGANIC COMPOUNDS LESS THAN 0.10%</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROREACTG3	40 CFR Part 60, Subpart DDD	60DDD-3	<p>CONTROL OF CONTINUOUS EMISSIONS [NSPS DDD] = ALL CONTINUOUS EMISSIONS ARE CONTROLLED IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561)</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT CONTINUOUS EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>UNCONTROLLED ANNUAL EMISSIONS [NSPS DDD] = UNCONTROLLED ANNUAL EMISSIONS GREATER THAN OR EQUAL TO 1.6 MEGAGRAMS/YEAR (1.76 TONS/YEAR)</p> <p>ANNUAL EMISSIONS ENTERING CONTROL DEVICE [NSPS DDD] = ANNUAL EMISSIONS ENTERING CONTROL DEVICE GREATER THAN OR EQUAL TO CALCULATED THRESHOLD EMISSIONS (CTE) LEVELS CALCULATED IN 'TABLE 3'</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS [NSPS DDD] = WEIGHT PERCENT TOTAL ORGANIC COMPOUNDS GREATER THAN OR EQUAL TO 0.10%</p> <p>'TABLE 3' CONTROL REQUIREMENTS [NSPS DDD] = CALCULATIONS FROM 'TABLE 3' REQUIRE CONTROLS</p> <p>EMISSION REDUCTION FROM CONTROL DEVICE [NSPS DDD] = EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) REDUCES EMISSIONS BY GREATER THAN OR EQUAL TO 98% OR LESS THAN EQUAL TO 20 PARTS PER MILLION BY VOLUME (PPMV)</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PRORMC22-2	40 CFR Part 60, Subpart DDD	60DDD-1	<p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER SEPTEMBER 30 1987 AND ON/BEFORE JANUARY 10 1989</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PRORMHEXA	40 CFR Part 60, Subpart DDD	60DDD-1	<p>EMERGENCY VENT [NSPS DDD] = EMISSIONS ARE NOT AN EMERGENCY VENT STREAM FROM A NEW MODIFIED OR RECONSTRUCTED FACILITY</p> <p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>POLYOLEFIN PRODUCTION [NSPS DDD] = MORE THAN ONE POLYOLEFIN IS PRODUCED</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>EXISTING CONTROL DEVICE [NSPS DDD] = VENT STREAM IS CONTROLLED NOT IN AN EXISTING CONTROL DEVICE (AS DEFINED IN 40 CFR 60.561) WHICH HAS NOT BEEN RECONSTRUCTED REPLACED OR ITS OPERATING CONDITIONS MODIFIED AS A RESULT OF STATE OR LOCAL REGULATIONS</p> <p>PROCESS EMISSIONS [NSPS DDD] = INDIVIDUAL VENT GAS STREAMS EMIT INTERMITTENT EMISSIONS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER JANUARY 10 1989</p> <p>INTERMITTENT CONTROL DEVICE [NSPS DDD] = FLARE</p> <p>EXPERIMENTAL PROCESS LINE [NSPS DDD] = AFFECTED FACILITY IS NOT AN EXPERIMENTAL PROCESS LINE</p> <p>'TABLE 2' THRESHOLD EMISSION RATES [NSPS DDD] = UNCONTROLLED EMISSION RATE GREATER THAN TO UNCONTROLLED THRESHOLD EMISSION RATES IN 'TABLE 2' OF 40 CFR 60.560</p>	
PROSTOREG3	40 CFR Part 60, Subpart DDD	60DDD	<p>MANUFACTURED PRODUCT [NSPS DDD] = POLYPROPYLENE OR POLYETHYLENE</p> <p>CONTINUOUS PROCESS [NSPS DDD] = AFFECTED FACILITY PROCESS IS CONTINUOUS</p> <p>CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS DDD] = AFTER SEPTEMBER 30 1987 AND ON/BEFORE JANUARY 10 1989</p>	

* - The "unit attributes" or operating conditions that determine what requirements apply

** - Notes changes made to the automated results from the DSS, and a brief explanation why

NSR VERSUS TITLE V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.

NSR permits are issued independent of FOP requirements.

FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

NEW SOURCE REVIEW REQUIREMENTS

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The Office of Public Assistance (OPA) may be contacted at 1-800-687-4040 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following website:

www.tceq.state.tx.us/permitting/air/permitbyrule/historical_rules/old106list/index106.html. Outdated Standard Exemption lists may be viewed at the following website:

www.tceq.state.tx.us/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

PSD Permits	NA Permits
PSD Permit No.: PSDTX118M4	NA Permit No.: none
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.: 1567 (11/16/2005)	Authorization No.: 18773 (07/13/2009)
Authorization No.: 3639 (05/15/2006)	Authorization No.: 46922 (02/22/2001)
Authorization No.: 56757 (10/28/2003)	Authorization No.: 6141A (11/17/2008)
Authorization No.: 6361 (11/23/2005)	Authorization No.: blank
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 034	Version No./Date: 08/11/1989
Number: 106	Version No./Date: 05/04/1994
Number: 106.261	Version No./Date: 03/14/1997
Number: 106.261	Version No./Date: 12/24/1998
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 03/14/1997
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 09/04/2000
Number: 082	Version No./Date: 04/05/1995
Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum	
Permit No.: None	Permit No.: None

EMISSION UNITS AND EMISSION POINTS

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sandblasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the "Maximum Allowable Emission Rate Table", or "MAERT" for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

RATIONALE FOR COMPLIANCE ASSURANCE MONITORING (CAM)/ PERIODIC MONITORING METHODS SELECTED

Periodic Monitoring:

The Federal Clean Air Act requires that each federal operating permit include monitoring sufficient to assure compliance with the terms and conditions of the permit. Most of the emission limits and standards applicable to emission units at Title V sources include adequate monitoring to show that the units meet the limits and standards. For those requirements that do not include monitoring, or where the monitoring is not sufficient to assure compliance, the federal operating permit must include such monitoring for the emission units affected. The following emission units are subject to periodic monitoring requirements because the emission units are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement that does not already require monitoring, or the monitoring for the applicable requirement is not sufficient to assure compliance:

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 530 & LP1RTFT2TK	Applicable Form: OP-UA03
Control Device ID No.:	Control Device Type:
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: emptied and degassed	
Averaging Period: n/a	
Deviation Limit: Fill pipe must be repaired (if necessary) prior to filling the tank	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere. This approach was included as an option by the EPA in the "Periodic Monitoring Technical Reference Document" (April 1999) to monitor VOC sources.	

UNIT/GROUP/PROCESS INFORMATION	
ID No.: 530 & LP1RTFT2TK	Applicable Form: OP-UA03
Control Device ID No.:	Control Device Type:
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Liquid Level	
Minimum Frequency: once per day*	
Averaging Period: n/a	
Deviation Limit: Fill pipe must be submerged at all times	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere. This approach was included as an option by the EPA in the "Periodic Monitoring Technical Reference Document" (April 1999) to monitor VOC sources.	

UNIT/GROUP/PROCESS INFORMATION	
ID No.: GRP-TK2, GRP-TK3, GRP-TK4, GRP-TK5, LP1RRICATK, LP1RTFT2TK	Applicable Form: OP-UA03
Control Device ID No.:	Control Device Type:
APPLICABLE REGULATORY REQUIREMENT	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112
Pollutant: VOC	Main Standard: § 115.112(c)(1)
MONITORING INFORMATION	
Indicator: Pilot Flame	
Minimum Frequency: once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame	
Basis of monitoring: It is widely practiced and accepted to monitor the flare pilot flame by closed circuit cameras, thermocouples and visual inspection. The presence of the pilot flame demonstrates that VOC emissions are combusted. Monitoring the presence of a pilot flame is required in many federal rules, including: 40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH.	

AVAILABLE UNIT ATTRIBUTE FORMS

- OP-UA1 - Miscellaneous and Generic Unit Attributes
- OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
- OP-UA3 - Storage Tank/Vessel Attributes
- OP-UA4 - Loading/Unloading Operations Attributes
- OP-UA5 - Process Heater/Furnace Attributes
- OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
- OP-UA7 - Flare Attributes
- OP-UA8 - Coal Preparation Plant Attributes
- OP-UA9 - Nonmetallic Mineral Process Plant Attributes
- OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
- OP-UA11 - Stationary Turbine Attributes
- OP-UA12 - Fugitive Emission Unit Attributes
- OP-UA13 - Industrial Process Cooling Tower Attributes
- OP-UA14 - Water Separator Attributes
- OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
- OP-UA16 - Solvent Degreasing Machine Attributes
- OP-UA17 - Distillation Unit Attributes
- OP-UA18 - Surface Coating Operations attributes
- OP-UA19 - Wastewater Unit Attributes
- OP-UA20 - Asphalt Operations Attributes
- OP-UA21 - Grain Elevator Attributes

OP-UA22 - Printing Attributes
OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
OP-UA25 - Synthetic Fiber Production Attributes
OP-UA26 - Electroplating and Anodizing Unit Attributes
OP-UA27 - Nitric Acid Manufacturing Attributes
OP-UA28 - Polymer Manufacturing Attributes
OP-UA29 - Glass Manufacturing Unit Attributes
OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes
OP-UA31 - Lead Smelting Attributes
OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
OP-UA33 - Metallic Mineral Processing Plant Attributes
OP-UA34 - Pharmaceutical Manufacturing
OP-UA35 - Incinerator Attributes
OP-UA36 - Steel Plant Unit Attributes
OP-UA37 - Basic Oxygen Process Furnace Unit Attributes
OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes
OP-UA39 - Sterilization Source Attributes
OP-UA40 - Ferroalloy Production Facility Attributes
OP-UA41 - Dry Cleaning Facility Attributes
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes
OP-UA43 - Sulfuric Acid Production Attributes
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes
OP-UA45 - Surface Impoundment Attributes
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes
OP-UA47 - Ship Building and Ship Repair Unit Attributes
OP-UA48 - Air Oxidation Unit Process Attributes
OP-UA49 - Vacuum-Producing System Attributes
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
OP-UA51 - Dryer/Kiln/Oven Attributes
OP-UA52 - Closed Vent Systems and Control Devices
OP-UA53 - Beryllium Processing Attributes
OP-UA54 - Mercury Chlor-Alkali Cell Attributes
OP-UA55 - Transfer System Attributes
OP-UA56 - Vinyl Chloride Process Attributes
OP-UA57 - Cleaning/Depainting Operation Attributes
OP-UA58 - Treatment Process Attributes
OP-UA59 - Coke By-Product Recovery Plant Attributes
OP-UA60 - Chemical Manufacturing Process Unit Attributes
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes
OP-UA62 - Glycol Dehydration Unit Attributes
OP-UA63 - Vegetable Oil Production Attributes