

FEDERAL OPERATING PERMIT - TECHNICAL REVIEW SUMMARY

SITE OPERATING PERMIT (SOP) INITIAL ISSUANCE

| | | | |
|---------------------|----------------------------------|-------------------|---|
| Permit #: | 04169 | Company: | Gulf Coast Growth Ventures LLC |
| Project #: | 29423 | Site: | Gulf Coast Growth Ventures |
| Regulated Entity #: | RN109753731 | Application Area: | Olefins, Derivative and Utilities |
| Region: | 14 | Customer #: | CN605632439 |
| NAICS Code: | 325199 | County: | San Patricio |
| Permit Reviewer: | Vasant V. Chaphekar, P.E. | NAICS Name: | All Other Basic Organic Chemical Manufacturing |

SITE INFORMATION

Physical Location: 6414 County Road 1612
Nearest City: Gregory
Major Pollutants: CO, HAPS, NOX, PM, VOC
Additional FOPs: None

PROJECT SUMMARY

Gulf Coast Growth Ventures LLC's Gulf Coast Growth Ventures site is an Organic Chemical Manufacturing facility and a major source of emissions. It is subject to 30 TAC Chapter 122 which requires it to apply and obtain a Federal Operating Permit (FOP). An application for the FOP was received by TCEQ on August 21, 2019. The emission sources at the site are subject to State and/or Federal regulations. Some of the significant emission sources at the site are boilers, engines, storage tanks, transfer operations, water separators, fugitive equipment, process vents, and flares. The additional periodic monitoring and compliance assurance monitoring requirements for the applicable units are identified in the permit. The FOP includes general and special terms and conditions and unit-specific applicable requirements which are identified using the information provided by the applicant in various forms (OP-SUM, OP-REQ1, OP-REQ2, OP-MON, and various Unit Attribute forms).

This project was processed under the Expedited Permitting Program pursuant to 30 Texas Administrative Code, Chapter 101, Subchapter J. It was accepted into the program on August 23, 2019.

PROCESS DESCRIPTION

Gulf Coast Growth Ventures LLC (GCGV) is a grassroots olefin and derivatives manufacturing complex located near Gregory in San Patricio County, which includes a process unit that will convert market pipeline ethane to olefins ("the Olefins unit") and multiple derivative units which will receive the ethylene, produced in the Olefins unit, as feed. The derivative units include two polyethylene units and a Mono-Ethylene Glycol (MEG) Unit. The utilities and infrastructure on-site support facilities include steam, rail, cooling water, liquid transport, and wastewater treatment.

TECHNICAL REVIEW

Permit Content Summary

1. Was Periodic Monitoring (PM) required and included in the permit?..... Yes
2. Was Compliance Assurance Monitoring (CAM) required and included in the permit?..... Yes
3. Was case-by-case PM or CAM included in the permit?..... Yes
4. Was a permit shield requested?..... Yes
5. If a permit shield was requested, was any permit shield request denied?..... No
6. Identify if the following are applicable for this project:
 - (a) Manually-built applicable requirements..... Yes
 - (b) Customized Special Terms and Conditions..... Yes
 - (c) Manual changes to the IMS-generated applicable requirements..... Yes
 - (d) Alternate means of compliance for any emission unit/source at the site..... No
7. Is the site subject to the requirements of 40 CFR Part 72 (Acid Rain Permit)?..... No
8. Did the applicant's review/comments on the working draft permit result in changes to the permit content?..... Yes
9. Will the draft permit be sent to public notice with unresolved issues (i.e., disagreements with applicant)?..... No

Permit reviewer notes:

- * Periodic Monitoring (PM): Periodic Monitoring is required and included for the following regulations:
 - 30 TAC Chapter 111: Visible Emissions
 - 30 TAC Chapter 115: Storage of VOCs, Water Separation
 - New Source Performance Standard (40 CFR Part 60): Subpart Kb
- * Compliance Assurance Monitoring (CAM): Compliance Assurance Monitoring is required and included for the following regulation: 30 TAC Chapter 115: Vent Gas Controls.
- * Case-by-Case PM: Case-by-Case PM is added for emission unit GAD03 for regulation 30 TAC Chapter 115, Storage of VOCs, upon the request of the applicant, and it is approved by PM/CAM Subject Matter Expert and Technical Specialist Mr. Alfredo Mendoza, P.E. In this case-by-case determination, the pre-approved option PM-V-019 is slightly modified to include the following sentence in the "Periodic Monitoring Text" section in the permit: "Establish a maximum carbon replacement interval using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data." However, this sentence is already included in the pre-approved PM option PM-V-019's "Basis of Monitoring" section in the Statement of Basis document, not in the permit. But since the applicant requested to state it explicitly in the permit (to maintain consistency with the NSR permit), the sentence has been added to the permit, and this needs to be considered as a "case-by-case" determination.
- * Permit Shields: Permit Shields are granted for the following regulations and emission units/groups:
 - 30 TAC:
 - o Chapter 112, Sulfur Compounds: GRPBOILER, GRPFURNACE
 - o Chapter 115, Batch Processes: C-VENTGAS, E-VENTGAS
 - o Chapter 115, HRVOC Cooling Towers: UCCT01
 - o Chapter 115, HRVOC Vent Gas: C-VENTGAS, E-VENTGAS, GFFLARE01, G-VENTGAS, O-VENTGAS, UFFLARE01, UFFLARE02
 - o Chapter 115, Loading and Unloading of VOC: GREFUSTN
 - o Chapter 115, Pet. Refinery & Petrochemicals: O_FUG
 - o Chapter 115, Storage of VOCs: ADMINGENTK, GDD08, GDD09, GED04, GRPFWPTK, GRPGENTK, GRPGLYTANK, GRPNOVOC, GRPPETANK, SCTOTE-GLY, TOTES, UTD04, ZMTK02, ZTTK02, ZTTK03
 - o Chapter 115, Vent Gas Controls: GRPADDTIVE, GRPCATLYST, GRPFURNSTK
 - o Chapter 117, Subchapter B: ADMINGEN, GRPBOILER, GRPEMRGGEN, GRPFURNACE, GRPFWP
 - New Source Performance Standard (NSPS) (40 CFR Part 60):
 - o Subpart DDD: GRPCPEBPV, GRPCPECPV, GRPEMEBPV, GRPEMECPV, PROADDITIVE, PROCATLYST
 - o Subpart Kb: ADMINGENTK, GAD03, GBD06, GDD08, GDD09, GED04, GRPEQTANK, GRPFWPTK, GRPGENTK, GRPGLYTANK, GRPNOVOC, GRPPETANK, GRPPRSTANK, RAD02, SCTOTE-GLY, TOTES, UTD04, ZMTK01, ZMTK02, ZTTK02, ZTTK03
 - o Subpart NNN: CPE-DIST, EPE-DIST, GRPHONNNN
 - o Subpart RRR: CPE-REACT, EPE-REACT, GRPHONRRR
 - National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 61):
 - o Subpart J: O_FUG
 - Maximum Achievable Control Technology (MACT) (40 CFR Part 63):
 - o Subpart CCCCC: GREFUSTN
 - o Subpart DDDDD: GRPFURNACE
 - o Subpart EEEE: ADMINGENTK, GRPFWPTK, GRPGENTK, GRPUNLOAD, MEOHLOAD, RESIDLOAD, ZMTK01, ZMTK02
 - o Subpart FFFF: GRPADDTIVE, GRPCATLYST, GRPEXTRUD, GRPGRANULE, GRPLOADOUT, GRPPELLET, GRPPETANK, PE-REGEN, ZTD08, ZTTK05
 - o Subpart G: GAD03, GDD09, GED04, SCTOTE-GLY
 - o Subpart H: GBD06, GDD08
 - o Subpart HH: GDT01
 - o Subpart Q: UCCT01
 - o Subpart YY: RLOAD-C3
- * Manually built applicable requirements: Applicable requirements are manually built for the following emission units and groups for the respective regulations, and they are approved by Technical Specialist, Ms. Carolyn Maus, P.E.:
 - 40 CFR Part 60 Subpart NNN: RJT01 (Index number – 60NNN-1)
 - 40 CFR Part 63 Subpart DDDDD: GRPBOILER (Index numbers – 63DDDDD-1, 63DDDDD-2. The difference between the two index numbers is 63DDDDD-1 uses "continuous oxygen trim system", while 63DDDDD-2 does not.)
 - 40 CFR Part 65 Subpart D: RJT01 (Index numbers – 65CAR-BLR, 65CAR-FL, 65CAR-INC. BLR, FL, and INC stand for boiler, flare, and incinerator, respectively.)
- * Customized Special Terms and Conditions:
 - A special term and condition, #1.E, was manually added to the permit to reference 30 TAC Chapter 113

requirements for units that are subject to 40 CFR Part 63 subparts. It reads as follows: "Emission units subject to 40 CFR Part 63, Subpart F, G, H, YY, EEEE, FFFF, ZZZZ, and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.110, § 113.120, § 113.130, § 113.560, § 113.880, § 113.890, § 113.1090, and § 113.1130, respectively, which incorporates the 40 CFR Part 63 Subpart by reference."

- Special Term and Condition #18 was customized to reflect the requirements for "new sources," since the site is a new source. Hence the citations are changed from "40 CFR § 63.132(a), (a)(1), (a)(1)(i), and (a)(3)" to "40 CFR § 63.132(b), (b)(1), (b)(1)(i), (b)(2), and (b)(2)(i)." This was approved by Technical Specialist, Ms. Carolyn Maus, P.E.
- * Manual changes to the IMS-generated applicable requirements:
 - Groups GRPCPECPV and GRPEMPECPV, regulation MACT FFFF, Index numbers 63FFFF-2 and 63FFFF-3: Citation § 63.2525(h) is removed from "Recordkeeping" requirements, since the unit does not use CEMS. (Applicant indicated this in UA15 form.)
 - Unit RJT01, regulation 40 CFR Part 65, Subpart D, Index numbers 65CAR-BLR, 65CAR-INC, and 65CAR-FL: "Control Device Type" is manually added in the Requirement Driver field to make a distinction between the control device types.
- * Applicant's review/comments on the working draft permit: Applicant commented on the following items in the draft permit: special terms and conditions, unit summary table, permit shields, PM/CAM deviation limits, and NSR authorizations table. The comments were reviewed and incorporated into the draft permit. The applicant agreed with the revised version of the draft permit.
- * Miscellaneous:
 - Major NSR Summary Table: The Major NSR Summary Tables for PSDTX1518 (associated with NSR 146425), and GHGPSDTX170 were reviewed and approved by Ms. Jasmine Yuan, P.E.
 - Group GRPHFOTANK, regulation MACT YY: This group has three index numbers under MACT YY requirement, which appear to be the same in the permit, but they differ by the control devices used. 63YY-2 uses boiler, 63YY-3 uses thermal incinerator, and 63YY-4 uses flare.
 - Unit ZTD08, regulation NSPS Kb: This unit has two index numbers under NSPS Kb requirement, which appear to be the same in the Unit Summary table, but as indicated in the monitoring tables, they differ by the control device used. 60Kb-23A uses boiler, and 60Kb-23B uses thermal incinerator.
 - Unit RJT01, regulation 40 CFR Part 65 Subpart D, Index numbers 65CAR-BLR, 65CAR-FL, 65CAR-INC: Citation § 65.163(a) is removed from "Recordkeeping" requirements since applicant declared that the closed vent system that routes emissions to the control devices does not include a bypass line.
 - The control device IDs are entered in abbreviated formats in IMS, the TCEQ's FOP database management system. This is due to the word limit set for those fields. However, the permit document has the expanded forms.
 - o UFF01x represents UFF01A and UFF01B. These are thermal incinerators.
 - o UFFLAREx represents UFFLARE01 and UFFLARE02. These are flares.
 - o USSG01x represents USSG01A, USSG01B, and USSG01C. These are boilers.
 - o ZWSRCO1x represents ZWSRCO1A and ZWSRCO1B. These are catalytic incinerators.

Statement of Basis

A Statement of Basis sets forth the legal and factual basis for the applicable requirements that are included in the FOP. A Statement of Basis was prepared for this project and is included in the permit file.

Compliance History Review

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on February 17, 2020.
 Site rating: N/A Company rating: N/A
 (High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)
2. Has the permit changed on the basis of the compliance history or site/company rating?..... No

Permit reviewer notes:

The site has been operating for less than five years hence the ratings are shown as N/A above.

Site/Permit Area Compliance Status Review

1. Were there any out-of-compliance units listed on Form OP-ACPS?..... No
2. Is a compliance plan and schedule included in the permit?..... No

Delinquent Fee Check

1. The delinquent fee check was performed on February 17, 2020, December 15, 2020, and December 16, 2020.
2. Were there any delinquent fees owed? No

Permit reviewer notes:

A delinquent fee check report reviewed on December 15, 2020 indicated a balance due exceeding the threshold amount. Applicant was advised of the status on the same day. Applicant informed payment in full was made to TCEQ on December 14, 2020 and it should be reflected in the report within 1-2 business days. A follow up delinquent fee check report on December 16, 2020 indicated there is no outstanding balance due.

Public Notice Information

1. Were comments received from the applicant after the draft permit was mailed and before Public Notice was published?..... No
2. Was a revised draft permit or public notice authorization package (PN-Errata) sent for any reason?..... No
3. Publication date: 03/19/2020 Newspaper name: News of San Patricio
4. Was bilingual public notice published?..... Yes
Publication date: 03/15/2020 Newspaper name: Tejano y Gruperio News
5. Were comments received during Public Notice period?..... Yes
 - (a) Was a public hearing requested?..... No
 - (b) Was a public hearing held?..... No
 - (c) Was the public hearing request withdrawn?..... No
 - (d) Was permit content changed as a result of any public comments?..... Yes
6. Was re-publication necessary?..... No

Permit reviewer notes:

A public comment was received on April 20, 2020 and the EPA review period ended.

Responsive to the public comment, the applicant submitted an OP-REQ3 form to define low-level applicable requirements for: 1) units GRPFURNACE, ZTTK04, GRPHFOTANK, UCCT01 and O_FUG subject to MACT YY, 2) units C_FUG, E_FUG, U_FUG subject to MACT FFFF, 3) units WASHUNLOAD, GLYUNLOAD, MEOHUNLOAD, SLOPUNLOAD subject to MACT EEEE. The low-level citations were evaluated and approved for IMS entry by Technical Specialist, Carolyn Maus, P.E.

In response to the public comment received, the following modifications were made from the Draft Permit to the Proposed Permit.

- 1) In the Applicable Requirements Summary (ARS) table, 40 CFR Part 63, Subpart FFFF high level requirements for units C_FUG, E_FUG, U_FUG were replaced with more specific requirements (pages 57 through 141).
- 2) In the ARS table, 40 CFR Part 63, Subpart EEEE high level requirements for units GLYUNLOAD, MEOHUNLOAD, SLOPUNLOAD, WASHUNLOAD was replaced with more specific requirements (pages 72 through 147).
- 3) In the ARS table, 40 CFR Part 63, Subpart YY high level requirements for units GRPFURNACE, GRPHFOTANK, O_FUG, U_FUG, UCCT01 and ZTTK04 were replaced with more specific requirements (pages 91 through 126).
- 4) In the ARS table, 40 CFR Part 63, Subpart DDDDD high level requirements for unit GRPBOILER was replaced with more specific requirements (pages 74 through 75).
- 5) In the ARS table, Textual Description for flare units UFFLARE01 and UFFLARE02 subject to 30 TAC 111, Visible Emissions is revised as follows: "Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period. Non-excessive upset events are subject to the provisions under §101.222(b)".
- 6) In the Major NSR Summary Table of the Proposed Permit, the issuance date of the following NSR/PSD permit number is revised: 146425/PSDTX1518 issuance date 06/26/2020.
- 7) In the Additional Monitoring Requirements section (page 10), special term and condition 19 was added to list Compliance Assurance Monitoring (CAM) requirements.
- 8) In the New Source Review Authorization References by Emissions Unit table (pages 220 through 230), reference to NSR/PSD permit GHGPSDTX170 was added for the following units C_FUG, E_FUG, G_FUG, O_FUG, U_FUG, PE-REGEN, O_FAF01, O_FBF01, O_FCF01, O_FDF01, O_FEF01, O_FFF01, O_FGF01, O_FHF01, UFF01A, UFF01B, UFFLARE01, UFFLARE02, UFFLARE01, UFFLARE02, O-REGEN, GFFLARE01, GBX02, USSG01A, USSG01B, USSG01C, UFF01A, UFF01B, UKDGEN01, UKDGEN02, GUDGEN01, ADMININGEN, ZFP02B, and ZFP02C.

EPA Review

1. Did EPA comment on the draft permit?..... No
2. Was a separate NOPP - Notice of Proposed Permit sent to the EPA?..... Yes
If yes, did the EPA comment on the proposed permit?..... No

3. Were any changes made to the permit after the EPA Review Period?..... No
If yes, were these changes made within the 60-day Public Petition Period?..... N/A


Permit reviewer notes:

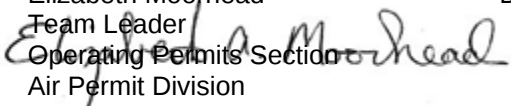
A response to comments (RTC) letter with the Proposed Permit and Revised SOB as attachments was sent to EPA for comments on 10/30/2020. EPA review period started on 11/03/2020 and ended on 12/18/2020. No comments were received from EPA.

IMPORTANT MILESTONES

| Milestone (Standard) | Start Date | End Date |
|--|------------|------------|
| Date Application Received by TCEQ | 08/21/2019 | |
| Date Project Received by Engineer | 08/23/2019 | |
| Technical Review Period | 08/26/2019 | 02/17/2020 |
| Working Draft Permit Reviewed by Applicant | 12/12/2019 | 12/23/2019 |
| Date PNAP/Draft Permit Mailed | 03/10/2020 | |
| Public Notice Comment Period | 03/15/2020 | 04/18/2020 |
| EPA Review Period | 11/03/2020 | 12/18/2020 |
| Date Sign Posting Certification Received | 04/27/2020 | |

EFFECTIVE PERMIT ISSUANCE DATE: 12/30/2020


Vasant Chaphekar, P.E.
Technical Specialist
Operating Permits Section
Air Permits Division
12/18/2020
Date

12/18/2020
Date
Elizabeth Moorhead
Team Leader
Operating Permits Section
Air Permit Division


CONTACT INFORMATION

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