Statement of Basis of the Federal Operating Permit

Oil and Gas Sites Located in:

Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Ellis, Fort Bend, Galveston, Hardin, Harris, Jefferson, Johnson, Kaufman, Liberty, Montgomery, Orange, Parker, Rockwall, Tarrant, and Waller counties

General Operating Permit

Permit Number 511

Standard Industrial Classification (SIC) Code:

1311 Crude Petroleum and Natural Gas

1321 Natural Gas Liquids

4922 Natural Gas Transmission

4923 Natural Gas Transmission and Distribution

This Statement of Basis sets forth the legal and factual basis for the permit conditions. It contains sections including a Facility Description, Federal Regulatory Applicability Determinations, Operational Flexibility, New Source Review Requirements, Compliance Assurance and Periodic Monitoring, and Compliance Status.

Operating Permit
Basis of Determination

Description of the Project

The Texas Commission on Environmental Quality (TCEQ) executive director issues a revised and renewed General Operating Permit (GOP) Number 511, for Oil and Gas Sites located in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Ellis, Fort Bend, Galveston, Hardin, Harris, Jefferson, Johnson, Kaufman, Liberty, Montgomery, Orange, Parker, Rockwall, Tarrant, and Waller counties. This GOP contains revisions to codified applicable requirements, to the codification of standard permits as applicable requirements, and to the compliance assurance monitoring (CAM) section.

Description of the GOP Procedural Requirements

The procedural requirements for the issuance of a GOP by the executive director are in 30 Texas Administrative Code (TAC) Chapter 122, Subchapter F (General Operating Permits). The requirements include a 30-day public comment period, a notice and comment hearing, an affected state review, and a 45-day United States Environmental Protection Agency (EPA) review. The GOP will be subject to a 60-day public petition period, during which the public may petition the EPA to object to the GOP.

On March 6, 2015, notice of the public comment period and notice and comment hearing on the draft GOP was published in the *Texas Register*, the TCEQ Air Permits Division (APD) web site, and in a newspaper of the largest general circulation in the Austin, Dallas, and Houston metropolitan areas. The comment period was March 6, 2015, through April 7, 2015, and offered the public an opportunity to review and submit comments on the draft GOP. Concurrent with the public comment period, affected states (Arkansas, Colorado, Kansas, Louisiana, New Mexico, and Oklahoma) had the opportunity to comment on the draft GOP. Ten written comments were received.

The EPA 45-day review period followed the public comment period. The EPA review began on May 22, 2015, and ended on July 6, 2015. The EPA had the opportunity to comment on or object to the proposed GOP issuance. No EPA objections or comments were received.

From the date of issuance, October 15, 2015, the GOP is subject to public petition for 60 days, as specified in 30 TAC § 122.360 (Public Petition). If the EPA does not file an objection with the executive director during the EPA review period, any person affected by the decision of the executive director to issue the GOP may petition the EPA to make an objection. Petitions shall be based only on objections to the GOP that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates in the petition to the EPA that it was not possible to raise the objections within the public comment period, or that the grounds for the objection arose after the public comment period. The petition shall identify all objections. A copy of the petition shall be provided to the executive director by the petitioner. Petitions must be filed with the EPA on or before December 14, 2015. After receiving the petition, the EPA may object to the issuance of the GOP only if it is not in compliance with the applicable requirements or the requirements of 30 TAC Chapter 122 (Federal Operating Permits Program). The executive director shall have 90 days from the receipt of an EPA objection to resolve any objection and, if necessary, terminate or revise the GOP.

Applications for an authorization to operate (ATO) under a GOP are reviewed by the executive director to ensure that the site qualifies for the GOP. Individual GOP applications are not subject to public notice, affected state review, EPA review, and public petition requirements,

because these procedural requirements occur during the development of the GOPs by the executive director. After the application review process is complete, the executive director approves ATOs under a GOP without further public notice.

Description of the Facilities

Oil and gas sites that meet or exceed major source thresholds are required to obtain a federal operating permit, according to 30 TAC Chapter § 122.120 (Applicability). For information on major source thresholds, refer to 30 TAC Chapter 122, Subchapter A, § 122.10(14) (General Definitions) and the Texas State Implementation Plan website located at www.tceq.texas.gov/airquality/sip.

GOP Number 511 was developed for use by crude petroleum and natural gas, natural gas liquids, natural gas transmission, and natural gas transmission and distribution industry sites that are similar in operation and subject to the applicable requirements codified in this GOP.

Crude petroleum and natural gas industry sites are primarily engaged in operating oil and gas field properties. Such activities may include operation of separators, emulsion breakers, desilting equipment, field gathering lines for crude petroleum, and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This industry includes the production of oil and the production of gas and hydrocarbon liquids through gasification, liquid faction, and pyrolysis of coal at the mine site. Also included are owners or operators that have complete responsibility for operating oil and gas wells for another group or company on a contract or fee basis.

Natural gas liquids industry sites are primarily engaged in producing liquid hydrocarbons from oil and gas field gases. The hydrocarbon production from these sites include: butane production, casing-head butane and propane production, cycle condensate production, ethane production, fractionating natural gas liquids, isobutane production, liquefied petroleum gases production, natural gas liquids production, natural gasoline production, and propane production.

Natural gas transmission industry sites are primarily engaged in the transmission or storage of natural gas for sale.

Natural gas transmission and distribution industry sites are primarily engaged in both the transmission and distribution of natural gas for sale.

Description of the General Operating Permit Revisions

Section (a) of GOP Number 511 establishes the qualification criteria that owners or operators of sites must meet in order to be eligible to operate under this GOP. The qualification criteria specify the limitations of a GOP. Qualification criteria are used to exclude the types of emission units that are not commonly found at sites that would use the GOP or for emission units with applicable requirements slightly different from many of the other sites. Owners or operators of emission units excluded by qualification criteria must apply for a site operating permit (SOP) for those emission units or the entire site. Alternative means of compliance, alternative means of control, alternative emission limitations or standards, alternative monitoring, compliance plans, or equivalent requirements that must be approved by the executive director or the administrator of the EPA typically, are not codified in a GOP due to the need for specific provisions.

The executive director updated the qualification criteria to include restrictions on the throughput of gasoline dispensing facilities and the type of fuel an engine not operating under emergency situations can fire.

Title 30 TAC Chapter 117 (Control of Air Pollution from Nitrogen Compounds) was revised to impose requirements on alternate plant-wide emission specifications, alternative case specific specifications, system caps, and source caps in the Beaumont/Port Arthur, Dallas/Fort-Worth, and Houston/Galveston/Brazoria areas. The qualification criteria have been updated to reflect these changes.

Section (b) of GOP Number 511 contains site-wide requirements. A site-wide requirement applies uniformly to the emission units at the site covered by this GOP. For example, the executive director has designated the opacity limits for stationary vents in 30 TAC Chapter 111 (Control of Air Pollution from Visible Emissions and Particulate Matter) as site-wide requirements. These requirements were designated as site-wide since many sites have numerous stationary vents and each must comply with the appropriate opacity limit. Additional information relating to site-wide requirements is in the APD document entitled "How to Read a General Operating Permit" located at www.tceq.texas.gov/assets/public/permitting/air/Title_V/General/howto_gops.pdf.

The executive director revised the site-wide requirements. Some of the revisions include formatting, language, and rule referencing to make the GOP consistent with the SOP site-wide requirements. These revisions result in renumbering of terms and conditions in the permit. The revisions are detailed below:

- The executive director revised GOP 511(b)(3) to include references to 30 TAC § 122.146 (Compliance Certification Terms and Conditions) concerning the requirement to certify compliance with monitoring, recordkeeping, reporting, or testing required by the permit.
- The executive director revised GOP 511(b)(9) to remove references to qualification criteria.
- The executive director updated GOP 511(b)(9) to include permit by rule 30 TAC § 106.359 (Planned Maintenance, Startup, and Shutdown (MSS) at Oil and Gas Handling and Production Facilities).
- The executive director revised GOP 511(b)(10) by removing terms relating to 30 TAC § 111.111(a)(1)(A) (Control of Air Pollution from Visible Emissions and Particulate Matter) applicability. Emission sources applicable to § 111.111(a)(1)(A) are required to submit GOP Table (c)(16) or indicate in the ATO application that the emission source is complying with the opacity limitation in § 111.111(a)(1)(B).
- The executive director revised GOP 511(b)(19) by removing terms for 30 TAC Chapter 115, Subchapter F, Division 3 (Degassing of Storage Tanks, Transport Vessels, and Marine Vessels).
- The executive director updated GOP 511(b)(23), (24), (25), (26), and (27) terms to include 30 TAC Chapter 117, Subchapter D (Combustion Control at Minor Sources in Ozone Nonattainment Areas) requirements.
- The executive director updated GOP 511(b)(33) by including a term for 40 CFR Part 60, Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution).
- The executive director updated GOP 511(b)(36) by including a reference to 30 TAC Chapter 113, Subchapter C (National Emission Standards for Hazardous Air

Pollutants for Source Categories) for emission units subject to a subpart in 40 CFR Part 63.

- The executive director updated GOP 511(b)(40), (45)-(49) by including terms for 40 CFR Part 63, Subpart HH (National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities).
- The executive director updated GOP 511(b)(42) by including a term for 40 CFR Part 63, Subpart CCCCCC (National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities).

Section (c) of GOP Number 511 contains permit tables that provide a codification of applicable requirements including regulatory monitoring, testing, recordkeeping, and reporting requirements for units covered by the GOP. Additional information relating to permit tables may be found in the APD document entitled "How to Read a General Operating Permit" located at www.tceq.texas.gov/assets/public/permitting/air/Title_V/General/howto_gops.pdf.

Most of the applicable requirements codified in section (c) of GOP Number 511 have been revised due to newly promulgated or amended regulations.

Permit holders operating under an index number in a permit table that has been revised may need to update their applications if applicability determinations and the determination of basis affecting the emission units have changed. The following permit tables contain modifications or corrections:

- GOP Number 511(c) - Updated all tables for consistency with the existing decision support system.

There were no existing permit tables removed from the GOP.

The following new permit tables are included in the GOP:

- GOP Number 511(c)(43) - Boilers and process heaters affected by 40 CFR Part 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters).
- GOP Number 511(c)(44) - Incinerators affected by 30 TAC Chapter 117, Subchapter B, Division 3 (Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources).
- GOP Number 511(c)(45) - Incinerators affected by 30 TAC Chapter 117, Subchapter B, Division 4 (Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources).
- GOP Number 511(c)(46) - Boilers and process heaters affected by 40 CFR Part 63, Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources).
- GOP Number 511(c)(47) - Industrial Cleaning Solvents applicable to 30 TAC Chapter 115, Subchapter E, Division 6 (Industrial Cleaning Solvents).

Compliance Assurance Monitoring (CAM)

Section (d) includes CAM applicability criteria and section (e) contains the CAM option tables. The executive director has made an effort to include all possible pre-approved CAM options from the "Compliance Assurance Monitoring" (APDG 5824) guidance document appropriate for an oil and gas site. The guidance is available on the website www.tceq.state.tx.us/permitting/air/guidance/titlev/tv_fop_guidance.html.

The following changes were made to the CAM section:

- Added the information from footnotes 1, 2, and 3 in section (e) to section (d) as numbers (5), (6), and (7).
- Corrected the averaging period from one hour to n/a* for options that had a once per day minimum monitoring frequency. Options corrected were CAMG-OG-CC-009, CAMG-OG-CC-061, and CAMG-OG-CC-081.
- Deleted CAMG-OG-CC-065 and CAMG-OG-CC-066 which are duplicates of CAMG-OG-CC-037 and CAMG-OG-CC-038.
- Deleted CAMG-OG-CC-067 and CAMG-OG-CC-068 which are duplicates of CAMG-OG-CC-039 and CAMG-OG-CC-040.
- Deleted CAMG-OG-CC-069 and CAMG-OG-CC-070 which are duplicates of CAMG-OG-CC-041 and CAMG-OG-CC-042.
- Deleted CAMG-OG-CC-071 and CAMG-OG-CC-072 which are duplicates of CAMG-OG-CC-043 and CAMG-OG-CC-044.
- Deleted CAMG-OG-CC-085 and CAMG-OG-CC-086 which are duplicates of CAMG-OG-CC-013 and CAMG-OG-CC-014.
- Deleted CAMG-OG-CC-087 and CAMG-OG-CC-088 which are duplicates of CAMG-OG-CC-015 and CAMG-OG-CC-016.

Periodic Monitoring (PM)

Section (f) includes the periodic monitoring applicability criteria and additional monitoring requirements. Section (g) contains the Periodic Monitoring Option Tables. All of the applicable requirements codified in Section (g) of GOP Number 511 remain consistent. The executive

director has made an effort to include all possible periodic monitoring options from the "Periodic Monitoring" (APDG 5241) guidance document appropriate for an oil and gas site. The guidance is available on the website located at www.tceq.state.tx.us/permitting/air/guidance/titlev/tv_fop_guidance.html.

All index numbers and their correlating applicable requirements in the GOP tables have been evaluated to determine if they provide sufficient periodic monitoring. Index numbers determined to have insufficient periodic monitoring have been identified by placing the words "Periodic Monitoring" in the monitoring and testing column of its set of applicable requirements.

It is important to note that the option numbers listed may not be in sequential order. This is due to the fact that these monitoring options are those included in the "Periodic Monitoring" guidance document and not all of those were necessary in this GOP. Permit holders must review the applications for each of their sites and determine if an application for additional periodic monitoring is required. The following permit tables contain index numbers which require additional periodic monitoring:

- GOP Number 511(c)(6) - Storage Vessels affected by 40 CFR Part 60, Subparts K (Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978), and Ka (Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced May 18, 1978, and Prior to July 23, 1984).
- GOP Number 511(c)(8) - Storage Vessels affected by 30 TAC Chapter 115, Subchapter B, Division 1 (Storage of Volatile Organic Compounds).
- GOP Number 511(c)(15) - Gas Sweetening Units Utilizing Sulfur Recovery affected by 30 TAC Chapter 112 (Control of Air Pollution from Sulfur Compounds).
- GOP Number 511(c)(17) - Stationary Vents affected by 30 TAC Chapter 115, Subchapter B, Division 2 (Vent Gas Control).
- GOP Number 511(c)(21) - VOC Water Separators affected by 30 TAC Chapter 115, Subchapter B, Division 3 (Water Separation).
- GOP Number 511(c)(22) - Cold Cleaning Degreasing Operations affected by 30 TAC Chapter 115, Subchapter E, Division 1 (Degreasing Processes).

Origin of Monitoring Options

The CAM and periodic monitoring options developed by the executive director are based on federal and state regulations, historical New Source Review (NSR) permits, and EPA guidance and training.

Federal Regulatory Applicability Determinations

The following table summarizes the applicability of the principal air pollution regulatory programs that may apply to areas permitted under GOP Number 511:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	No
Nonattainment NSR	No
Minor NSR	Yes
40 CFR Part 60 Standards of Performance for New Stationary Sources	Yes
40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants	Yes
40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Source Categories	Yes
Title IV Acid Deposition Control	No
Title V Permits	Yes
Title VI Stratospheric Ozone Protection	Yes

The permit tables include the applicability determinations for the emission units based on the index number(s) and all relevant units attribute information. Each combination of unit attributes information 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 www.tceq.state.tx.us/permitting/air/nav/air_all_ua_forms.html.

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. Therefore, the tank may need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the application, so that the ATO holder may store either product in the tank.

New Source Review Requirements

NSR authorizations are incorporated by reference in the ATO application and are enforceable under it. Each individual application to operate under a GOP can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas.

GOP Number 511 only covers sites containing emission units authorized by permit by rule (PBR) or standard permits and codified into this GOP. The PBRs codified into GOP Number 511 include:

30 TAC § 106.102 (Comfort Heating);
30 TAC § 106.103 (Air Conditioning and Ventilation Systems);
30 TAC § 106.122 (Bench Scale Laboratory Equipment);
30 TAC § 106.124 (Pilot Plants);
30 TAC § 106.148 (Material Unloading);
30 TAC § 106.183 (Boilers, Heaters, and Other Combustion Devices);
30 TAC § 106.227 (Soldering, Brazing, Welding);
30 TAC § 106.244 (Ovens, Barbecue Pits, and Cookers);
30 TAC § 106.261 (Facilities [Emission Limitations]);
30 TAC § 106.262 (Facilities [Emission and Distance Limitations]);
30 TAC § 106.263 (Routine Maintenance, Start-Up and Shutdown of Facilities, and Temporary Maintenance Facilities);
30 TAC § 106.264 (Replacements of Facilities);
30 TAC § 106.265 (Hand-held and Manually Operated Machines);
30 TAC § 106.266 (Vacuum Cleaning Systems);
30 TAC § 106.351 (Salt Water Disposal [Petroleum]);
30 TAC § 106.352 (Oil and Gas Handling and Production Facilities);
30 TAC § 106.353 (Temporary Oil and Gas Facilities);
30 TAC § 106.354 (Iron Sponge Gas Treating Unit);
30 TAC § 106.355 (Pipeline Metering, Purging, and Maintenance);
30 TAC § 106.359 (Planned Maintenance, Startup, and Shutdown [MSS] at Oil and Gas Handling and Production Facilities);
30 TAC § 106.371 (Cooling Water Units);
30 TAC § 106.372 (Industrial Gases);
30 TAC § 106.373 (Refrigeration Systems);
30 TAC § 106.411 (Steam or Dry Cleaning Equipment);
30 TAC § 106.412 (Fuel Dispensing);
30 TAC § 106.433 (Surface Coat Facility);
30 TAC § 106.434 (Powder Coating Facility);
30 TAC § 106.451 (Wet Blast Cleaning);
30 TAC § 106.452 (Dry Abrasive Cleaning);
30 TAC § 106.453 (Washing and Drying of Glass and Metal [Previously SE 42]);
30 TAC § 106.454 (Degreasing Units);
30 TAC § 106.471 (Storage or Holding of Dry Natural Gas);
30 TAC § 106.472 (Organic and Inorganic Liquid Loading and Unloading);
30 TAC § 106.473 (Organic Liquid Loading and Unloading);
30 TAC § 106.474 (Hydrochloric Acid Storage);
30 TAC § 106.475 (Pressurized Tanks or Tanks Vented to a Firebox);
30 TAC § 106.476 (Pressurized Tanks or Tanks Vented to Control);
30 TAC § 106.478 (Storage Tank and Change of Service);
30 TAC § 106.491 (Dual-Chamber Incinerators);
30 TAC § 106.492 (Flares);
30 TAC § 106.496 (Air Curtain Incinerators);
30 TAC § 106.511 (Portable and Emergency Engines and Turbines);
30 TAC § 106.512 (Stationary Engines and Turbines);
30 TAC § 106.531 (Sewage Treatment Facility);
30 TAC § 106.532 (Water and Wastewater Treatment); and
30 TAC § 106.533 (Remediation).

The GOP also covers sites that are permitted by an air quality standard permit under the requirements of 30 TAC Chapter 116, Subchapter F, (Standard Permits) including:

30 TAC § 116.617 (State Pollution Control Project Standard Permit);
30 TAC § 116.620 (Installation and/or Modification of Oil and Gas Facilities);
Air Quality Standard Permit for Electric Generating Units;
Air Quality Standard Permit for Boilers;
Air Quality Standard Permit for Oil and Gas Handling and Production Facilities; and
Air Quality Standard Permit for Pollution Control Projects.

Compliance Status

All owners and operators operating under a GOP must report all units in compliance at the time of initial issuance of the ATO and at a renewal of the ATO. After initial issuance of an ATO under a GOP, the owner or operator must certify compliance with the terms and conditions of the permit for at least every 12-month period following the initial issuance. Annual compliance certifications should be submitted to the executive director and the EPA administrator no later than 30 days after the end of the certification period.

Additionally, the owner or operator shall report, in writing, all instances of deviations, the probable cause of the deviations, and any corrective actions or preventative measures taken for each emission unit covered by a GOP. A deviation report shall be submitted for at least each six-month period after ATO issuance or at the frequency required by an applicable requirement which requires more frequent reporting. However, no report is required if no deviations occurred over the six-month reporting period. The deviation reports shall be submitted no later than 30 days after the end of each reporting period. Reports submitted under 30 TAC § 101.201 (Emissions Event Reporting and Recordkeeping Requirements) and 30 TAC § 101.211 (Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements) do not substitute for deviation reports. Annual compliance certification and deviation reporting forms were developed, and are maintained by the TCEQ Office of Compliance and Enforcement. These forms are available at www.tceq.texas.gov/search_forms.html. Owners or operators needing information regarding annual compliance certifications or deviation reports should contact the TCEQ Office of Compliance and Enforcement, Field Operations Program Support Section at 512-239-0400 or the Small Business and Local Government Assistance program at 1-800-447-2827. Additional resources can also be found at TexasOilandGasHelp.org.

Available Unit Attribute Forms

The following is a list of unit attribute forms applicable to GOP Number 511 applications located at www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html:

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-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
OP-UA11 - Stationary Turbine Attributes
OP-UA12 - Fugitive Emission Unit Attributes
OP-UA14 - Water Separator Attributes
OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
OP-UA16 - Solvent Degreasing Machine Attributes
OP-UA35 - Incinerator Attributes

OP-UA57 - Cleaning/Depainting Operation Attributes
OP-UA62 - Glycol Dehydration Unit Attributes

Hearing and Commenters

The draft GOP was subject to a 30 day comment period, during which time, any person was eligible to submit written comments on the draft GOP. A notice and comment hearing was held in Austin on April 6, 2015, at 10:00 am in Room 201S, Building E of the TCEQ offices, located at 12100 Park 35 Circle, Austin. No attendees appeared at the hearing. TCEQ received ten written comments from the Sierra Club Lone Star Chapter, and from an individual, during the public comment period.

Simultaneous with the public comment period, affected states (Arkansas, Colorado, Kansas, Louisiana, New Mexico, and Oklahoma) had the opportunity to comment on the draft GOP. No comments were received from affected states.

Response to Comments

The Texas Commission on Environmental Quality (TCEQ) received the following written comments from the Sierra Club Lone Star Chapter and from an individual during the public comment period. No changes to the General Operating Permit (GOP) were made in response to any of the comments.

Comment 1

The criteria in GOP terms 511-514(a)(4) state that at the time the application is submitted, the site and each emission unit at the site are in compliance with all applicable requirements. Sierra Club stated that this criteria does not determine exactly what the term compliance refers to, and does not require sufficient information to support a determination whether or not a particular unit or stationary source is in compliance.

Response 1

Section (a) of the Terms and Conditions of GOPs 511, 512, 513, and 514 contain the qualification criteria. The qualification criterion for a GOP contains the requirements an owner or operator must comply with when applying for an authorization to operate under a GOP. If an owner or operator cannot comply with any of the criteria in section (a), the site is not eligible for an authorization to operate under the GOP.

During initial issuance or renewal, an owner or operator applying to operate under GOP 511, 512, 513, or 514 must comply with Title 30 Texas Administrative Code (TAC) § 122.132(e)(4)(B), Application and Required Information for Initial Permit Issuance, Reopening, Renewal, or General Operating Permits, which requires an owner or operator to indicate the compliance status with respect to all applicable requirements for all emission units addressed in the application based on any compliance method specified in the applicable requirements and any other credible evidence or information.

Additionally, Title 30 TAC § 122.146(5) requires an annual compliance certification to be submitted and to include or reference the specified elements, including: the identification of

each term or condition of the permit for which the permit holder is certifying compliance, the method used for determining the compliance status of each emission unit, and whether such method provides continuous or intermittent data; for emission units addressed in the permit for which no deviations have occurred over the certification period, a statement that the emission units were in continuous compliance over the certification period; for any emission unit addressed in the permit for which one or more deviations occurred over the certification period, specific information indicating the potentially intermittent compliance status of the emission unit; and the identification of all other terms and conditions of the permit for which compliance was not achieved. All permit holders are required to comply with the requirements of Title 30 TAC § 122.146, as well as all other rules and requirements of the Commission. Compliance with 30 TAC § 122.146 is incorporated into GOPs 511-514 in term (b)(3). The requirements identified in Title 30 TAC § 122.132 and § 122.146 are approved by the United States Environmental Protection Agency (EPA) through the Title V Program.

Comment 2

Sierra Club expressed concern about visible emission or opacity requirements which may only require periodic visual readings. Sierra Club suggested that the method of reading opacity should be changed from a quarterly visual evaluation to a required use of a continuous emissions monitoring system.

Response 2

TCEQ typically only requires continuous monitoring for opacity in situations where some factor indicates that visible emissions have the potential to be a concern. 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.

Comment 3

Sierra Club suggested that the GOP should require transport vessels being degassed or cleaned in counties subject to the regulatory requirements of 30 TAC Chapter 115 to have a maximum capacity of 500 gallons, instead of the 8,000 gallons specified in GOP 511, as excess VOCs contribute to the formation of ground level ozone.

Response 3

The GOP is a Federal Operating Permit with program requirements in 30 TAC Chapter 122, Subchapter F. The GOP does not establish emission limits or control requirements and the limits and requirements in the GOP are set through other programs or regulations. The GOP is intended to codify existing applicable requirements and is not intended to replace existing rules.

Section (a)(5) of GOP 511 states that transport vessels subject to 30 TAC Chapter 115 are not authorized under this GOP. Title 30 TAC § 115.547 states that transport vessels less than 8,000 gallons are exempt from 30 TAC Chapter 115, Subchapter F, Division 3. The 8,000 gallon

quantity specified in the GOP is based on the exemption criteria in § 115.547. Using 500 gallons as a maximum capacity in the GOP would be inconsistent with the Chapter 115 exemption criteria.

Comment 4

Sierra Club suggested that the GOP should contain a more stringent limit for true vapor pressure, than the GOP limit of 11.0 pounds per square inch atmosphere (psia) when loading volatile organic compounds (VOCs) into transport vessels, as there is a potential for aggregation.

Response 4

The true vapor pressure qualification criteria of 11.0 psia is based on the expected and typical types of VOC that are likely to be handled or processed at an oil and gas site, and on the control requirements of Chapter 115 Subchapter C (where applicable). For certain nonattainment counties, Title 30 TAC § 115.213 requires an alternate means of control for loading operations more than 11.0 psia. An alternate means of control is not allowed for facilities operating under a GOP, as stated in term (a)(3) of GOP 511. By allowing a true vapor pressure of up to 11.0 psia, TCEQ does not limit the usability of the GOP unnecessarily. The 11.0 psia vapor pressure criteria in the GOP is only a factor in determining whether a facility is eligible to use the GOP, or if it must use a Site Operating Permit (SOP). The applicable emission control requirements of Chapter 115 or other applicable regulations are not dependent on whether the facility uses a GOP or an SOP. The facilities using this GOP would still have to comply with all applicable control requirements for emissions of VOC, including the VOC loading and unloading requirements of Chapter 115, and any other applicable state or federal regulations. Reducing the vapor pressure threshold in the GOP as suggested by the commenter would not result in any reduction in emissions or change in applicable control requirements.

Comment 5

Sierra Club suggested that the GOP should require the owner or operator to keep records of the true vapor pressures when loading VOCs into transport vessels for five years, in order to demonstrate that the facilities are in compliance with the rules, and ensure that VOC emissions do not occur at higher rates than the rules are intended to authorize.

Response 5

Records of loading operations into transport vessels are required by Title 30 TAC § 115.216, in nonattainment areas and certain covered attainment counties. The records required vary based on the type of loading operation, as described in 30 TAC Chapter 115, Subchapter C, Division 1. In accordance with Title 30 TAC § 122.144(1), records of monitoring data and support information required by this permit, or any applicable requirement codified in this permit, must be maintained for a period of five years, as stated in term (b)(4) of GOPs 511- 514. In locations other than nonattainment areas and other counties covered by 30 TAC Chapter 115, facilities may be subject to applicable federal requirements which require recordkeeping of true vapor pressure, and these facilities would also be required to keep those records for five years. Facilities which are authorized by a permit by rule (PBR) or standard permit are required to maintain records demonstrating compliance according to the conditions of the PBR or the standard permit, and by 30 TAC § 106.8 or 30 TAC § 116.615(8) respectively. Under

§ 106.8(c)(6), facilities located at sites designated as major in accordance with § 122.10(13), or subject to or potentially subject to any applicable federal requirement, must retain all records demonstrating compliance for at least five years.

Comment 6

Sierra Club stated that the GOP 511 site-wide rules are important and need to be stringently enforced because many of the 21 counties covered by GOP 511 contain large populations (including areas such as Houston, Dallas-Fort Worth, El Paso, and Beaumont Port Arthur). Sierra Club stated that the rules need to be strengthened to protect public health and the environment and maintain clean air for people in these highly populated areas.

Response 6

The TCEQ Office of Compliance and Enforcement (OCE) is responsible for monitoring and enforcing compliance with the state's environmental laws. The OCE is responsible for conducting periodic investigations to verify compliance at permitted facilities and initiating enforcement actions that include corrective action for violations identified during investigations, when appropriate.

Furthermore, owners/operators applying for an authorization to operate under GOP 511 are required by the GOP to submit an annual compliance certification in accordance with Title 30 TAC § 122.146 to identify compliance issues. The annual certification must include or reference the identification of each term or condition of the permit for which the permit holder is certifying compliance, the method used for determining the compliance status of each emission unit, and whether that method provides continuous or intermittent data. The certification must also include a statement that emission units addressed in the permit for which no deviations occurred over the certification period were in continuous compliance over the certification period. It also must contain specific information indicating the potentially intermittent compliance status of any emission unit addressed in the permit for which one or more deviations occurred over the certification period and identify the emission unit and all other terms and conditions of the permit for which compliance was not achieved.

It is also required by the GOPs to submit a semi-annual deviation report in order to identify any potential or actual noncompliance issues. All statements and information submitted in the annual compliance certification and the semi-annual deviation reports are certified to be accurate and complete by either the responsible official in charge of a principal business function for the company or a duly authorized representative who is responsible for the overall operation of the facility. False or omitted information in the semi-annual reports and annual compliance certification may potentially result in fines and/or criminal litigation. TCEQ reviews the semi-annual reports and annual compliance certification and makes them available to the EPA.

Finally, as part of all initial and renewal applications to operate under GOP 511, Form OP-ACPS, the Application Compliance Plan and Schedule, is submitted to TCEQ. This form confirms that the site is in compliance and shall continue to comply with all current applicable requirements, and that the site will comply with any additional applicable requirements that become effective in the future. GOP applicants certify that this information is true, accurate, and complete with Form OP-CRO1, the Certification by Responsible Official, which is also a required component of

the Federal Operating Permit (FOP) application. These requirements are identified in Title 30 TAC § 122.146 and are part of the EPA approved Operating Permits Program.

Comment 7

Sierra Club requested that term (b)(10)(A) of GOPs 511-514 should require a five percent opacity limit for stationary vents rather than 20 percent averaged over a 6-minute period. If a stationary source cannot meet this five percent opacity limit, the source should be required to be upgraded to be able to meet the five percent limit. Sierra Club stated that meeting a five percent opacity limit is important for keeping 8-hour ozone levels lower in the ozone nonattainment areas covered by the GOPs. Sierra Club also requested that term (b)(10) of GOPs 511-514 require weekly opacity observations rather than quarterly. Sierra Club suggested that if visible emissions are observed, based on a certified visible emissions evaluator, opacity observations should be required daily until the visible emissions have decreased to five percent or less.

Response 7

Vents regulated by GOP term (b)(10)(A) of GOPs 511-514 are not expected to produce visible emissions during normal operation as demonstrated through performance tests and historical data from industry that opacity and particulate matter standards are consistently met when combustion units fire natural gas only, which is consistent with EPA regulations for combustion sources. GOPs 511-514 require combustion sources to only fire natural gas, except black start engines, fire pump engines, engines operated less than 100 hours per year, and emergency engines. When an alternate fuel is burned, then additional requirements apply. Any other vents regulated by this requirement do not emit visible emissions, such as vents that emit only VOC or vents that provide passive ventilation, such as plumbing vents.

The 20 percent opacity limit is an emission limitation from Chapter 111 which is an applicable requirement, and it is necessary that the GOP codifies all applicable requirements accurately. Changing the 20 percent opacity limitation would require revisions to Chapter 111, which is beyond the scope of this project to revise and renew the GOPs. An operating permit does not establish emission limits or control requirements; those limits and requirements are set through other programs or regulations. TCEQ determined that daily or 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.

Comment 8

Sierra Club requested that the rule require owners or operators to take two photographs of any visible emissions found during observations. These photographs would be kept as supporting information for compliance status.

Response 8

Compliance with the opacity limits in Chapter 111 must be determined by appropriate test methods, as required in 30 TAC § 111.111(a)(1)(F). At this time, photographs have not been approved as an equivalent test method by TCEQ or the EPA. There are many variables involved in performing visible emissions evaluation, and photographs may not be of sufficient quality or consistency to provide an accurate indication of visible emissions.

Comment 9

An individual stated that since 2008, the use of hydraulic fracturing in the populated Dallas/Fort Worth area has increased the amount of contaminants in the air, and that chemicals from the oil and gas industry were poisoning the air, water, and ground. The commenter stated that allergies and asthma in humans have increased in the area. The commenter stated that they would like to see a large decrease in the amount of air, water, and ground pollution in the DFW area, and that the state should increase the use of renewable forms of energy.

Response 9

The Operating Permits Program (and these Oil and Gas GOPs) codifies or restates emission limitations and control technologies determined through other programs and regulations such as New Source Review (NSR) permitting, New Source Performance Standards, Maximum Achievable Control Technology standards, or rules implementing Reasonably Available Control Technology. TCEQ does not have the authority under the Operating Permits Program, nor is it the appropriate regulatory mechanism, to directly regulate or reduce air emissions, water pollution, ground pollution, or oil and gas extraction techniques. The Operating Permits Program requires that owners and operators of sites subject to 30 TAC Chapter 122 obtain an operating permit that contains all applicable air requirements to facilitate compliance and improve enforcement. The Oil and Gas General Operating Permit is a streamlined method that qualifying operations may use to satisfy Chapter 122 operating permit requirements. A GOP does not authorize construction or modifications to facilities, nor does a GOP authorize or directly regulate new emissions or emission increases from facilities. New emissions and emission increases are addressed and controlled by a NSR air permit or authorization, and by a variety of other state and federal air regulations which ensure that appropriate air emission control technology is applied and that human health is protected.

All facilities with the potential to emit air contaminants to the atmosphere are required to obtain an NSR authorization for those emissions. For an oil and gas project, the relevant NSR authorization may be the Oil and Gas Permit by Rule (PBR) or the Oil and Gas Standard Permit. Facilities which meet the conditions of the PBR or the standard permit are not expected to emit air contaminants at levels that result in adverse effects on human health, as those authorizations contain control requirements and conditions which have been designed to ensure that air quality and human health are protected. The Operating Permits Program and the GOPs only relate to air regulations, and there is no authority through the Operating Permits Program to regulate discharges to water or soil. Discharges to water or soil are addressed by other TCEQ programs, independent of the GOPs being revised in this action.

The commission supports the use of renewable energy, but the Oil and Gas GOP does not regulate or significantly affect the implementation of renewable energy projects or processes.

Comment 10

An individual stated that there have been over a hundred earthquakes in the area, which have caused damage to houses; and that prior to the beginning of hydraulic fracturing, there were not earthquakes in the area.

Response 10

The Operating Permits Program and the associated GOPs only relate to air regulations. Geology is not a factor which is considered, regulated, or addressed by the Operating Permits Program.

Other Changes

During final preparation of the GOP documents, the language was adjusted to reflect issuance instead of proposal, and the following changes were made:

- Corrected rule reference titles,
- Made minor grammatical adjustments to be consistent with TCEQ formatting, and
- Adjusted references to acronyms and rules to be consistent with TCEQ formatting.