

## **Statement of Basis of the Federal Operating Permit**

### **Oil and Gas Sites Located in:**

All Texas Counties Except, Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Nueces, San Patricio, Tarrant, Travis, Victoria, and Waller County

### **General Operating Permit**

Permit Number 514

Standard Industrial Classification (SIC) Code:

1311 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 draft 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 or commission) executive director is issuing a revised and renewed General Operating Permit (GOP) Number 514, Oil and Gas Sites Located in All Texas Counties except, Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Nueces, San Patricio, Tarrant, Travis, Victoria, and Waller County. The GOP Number 514 is issued by the TCEQ executive director under the requirements in Title 30 Texas Administrative Code (30 TAC) Chapter 122, Subchapter F (General Operating Permits). The GOP contains revisions to codified applicable requirements, the codification of permits by rule (PBRs) and standard permits as applicable requirements, the exclusion of sites with case-by-case New Source Review (NSR) permits, and the addition of compliance assurance monitoring (CAM) and periodic monitoring. This GOP issuance fulfills the obligation to renew the corresponding GOP Number 514 every 5 years as required by § 122.501 (General Operating Permits).

## **DESCRIPTION OF THE GENERAL OPERATING PERMIT PROCEDURAL REQUIREMENTS**

The GOP Number 514 is issued by the TCEQ executive director under the requirements of 30 TAC Chapter 122, Subchapter F, which included 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 is subject to a 60-day public petition period during which the public may petition the EPA to object to the GOP.

On June 2, 2006, an opportunity for public comment and hearing on the draft GOP was published in the *Texas Register*, the TCEQ Air Permits Division (APD) Internet site, and the *Austin American Statesman*, *Houston Chronicle*, and *Dallas Morning News*. The comment period 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. The public comment and affected states review officially closed July 10, 2006. Comments were received from the Texas Pipeline Association (TPA). The 45-day EPA review period followed the public comment period. The review period began on August 11, 2006 and ended on September 27, 2006 and the EPA had the opportunity to object to the proposed GOP issuance. No comments were submitted by the EPA on the proposed GOP.

From the date of issuance, October 19, 2006, the GOP is subject to public petition for 60 days, as specified in 30 TAC § 122.360 (Public Petition). Any person affected by a 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 by December 18, 2006. After receiving a 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**

The GOP Number 514 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.

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, and 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 fractionation, and pyrolysis of coal at the mine site. Also included are establishments which have complete responsibility for operating oil and gas wells for others 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 and/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.

The following table demonstrates the thresholds by which sources are classified as major.

County	Area Ozone Nonattainment Classification <sup>5</sup>	Major Source Thresholds (tons per year [tpy])								
		VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM-10 <sup>1</sup>	CO	Pb	HAP <sup>2</sup>	HAPs <sup>3</sup>	Other <sup>4</sup>
Bexar, Comal, and Guadalupe	Basic	100	100	100	100	100	100	10	25	100
Hardin, Jefferson, and Orange	Marginal	100	100	100	100	100	100	10	25	100
Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller	Moderate	100	100	100	100	100	100	10	25	100
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant	Moderate	100	100	100	100	100	100	10	25	100
All Other Texas Counties	Unclassified or Attainment	100	100	100	100	100	100	10	25	100

**Notes:**

1. Particulate matter (PM) may be used as a surrogate to demonstrate that PM-10 levels are below the major source threshold. For example, if data demonstrates that PM is less than 100 tpy, the data can be used to demonstrate that PM-10 is less than 100 tpy. However, if PM levels are greater than or equal to 100 tpy, then additional data must be provided to demonstrate that PM-10 levels are less than 100 tpy.
2. Any single hazardous air pollutant (HAP). Elemental lead is not included in lead compounds per FCAA § 112(b)(7).
3. Any combination of HAPs.
4. Any other regulated air pollutant as defined in 30 TAC § 122.10, including, but not limited to non-methane organic compounds (NMOC) at municipal solid waste landfills.
5. Nonattainment reclassification effective June 15, 2005

## DESCRIPTION OF THE GENERAL OPERATING PERMIT REVISIONS

Section (a) of GOP Number 514 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 or having applicable requirements not codified in the GOP 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, 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.

With the exception of incorporating a variety of format, language, and rule referencing changes, the qualification criteria remain consistent with the previous GOP Number 514. However, based on the 30 TAC Chapter 122 revision effective June 3, 2001, minor NSR is now an “applicable requirement.” Under the amended applicable requirement definition, all requirements under 30 TAC Chapter 106, Subchapter A (Permits by Rule) or 30 TAC Chapter 116 (Control of Air Pollution By Permits for New Construction or Modification) and any term or condition of any preconstruction permit are applicable requirements of the Operating Permits Program. GOP Number 514 is revised to codify PBRs and standard permits that may apply to sites authorized under GOP Number 514. GOPs cannot be revised to codify case-by-case NSR permits. Therefore there is qualification criterion in new GOP Number 514(a)(2), stating that sites and emission units authorized by any case-by-case NSR permits are not authorized under this GOP and owners or operators must apply for an SOP no later than December 1, 2008. This date will occur after the new Oil and Gas Air Quality Standard Permit becomes effective.

The executive director revised previous GOP Number 514(a)(7), renumbered as GOP Number 514(a)(8), to clarify that boilers and steam generators authorized may not equal or exceed 100 million British thermal units

per hour (MMBtu/hr) rated capacity regardless of construction or modification date. Potentially applicable requirements for boilers and steam generators with a greater rated capacity are not codified in the permit and these revisions will make the qualification criteria consistent with the permit tables.

Section (b) of draft GOP Number 514 contains site-wide requirements. A site-wide requirement is a requirement that applies uniformly to the emission units at the site. For example, the executive director has designated certain requirements of 30 TAC Chapter 111 (Control of Air Pollution From Visible Emissions and Particulate Matter), such as the opacity limits for stationary vents, 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 may be found in the APD document entitled "Federal Operating Permit Application Guidance."

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 added new GOP Number 514(b)(3), specifying that a holder of an ATO under GOP Number 514 may request to void that ATO. Such a request affects only the holder of a specific ATO and requirements for such a request are detailed in the term. The executive director reserves the right to rescind GOP Number 514.
- The executive director added new GOP 514(b)(4), concerning the reports that must be sent to the TCEQ central and regional offices. The term identifies what information must be included in the cover letter of the report.
- The executive director revised previous GOP 514(b)(3), renumbered as GOP 514(b)(5), for revisions to an ATO. The term has been revised to clarify when a revision must be submitted based on changes at the site or changes to applicability determinations.
- The executive director added new GOP Number 514(b)(6) to define the meaning of the grouping symbol, [G], in the tables in GOP Number 514(c). The grouping symbol is currently used with citations in SOP unit-specific requirements. This notation indicates that the citation and all the underlying subsections, paragraphs, subparagraphs, clauses, and subclauses for federal rules and state regulations apply. Tables in GOP Number 514(c) that are new or have been completely replaced or reworked now include this notation.
- The executive director revised previous GOP Number 514(b)(4), renumbered as GOP 514(b)(7), which reflects that a NSR authorization is required prior to new construction. All PBRs and standard permits required to be listed in Title V applications for sites authorized under GOP Number 514 have been identified and codified. The codification of these preconstruction authorizations allow for public comment on the terms contained in each preconstruction authorization with respect to Title V.
- The Chapter 111 applicable requirements for visible emissions, now located in GOP Number 514(b)(8), were revised for clarity and consistency with the SOP site-wide requirements.
- The executive director removed the 30 TAC Chapter 115 (Control of Air Pollution from Volatile Organic Compounds) terms for unloading operations in previous GOP Number 514(b)(9). The requirements contained in these terms are in the revised permit table for GOP Number 514(c)(6).

This revision clarifies which requirements apply to a transfer operation and eliminates duplicative requirements in the GOP. Loading operations are those operations that transfer volatile organic compounds (VOCs) from a stationary storage tank to a transport vessel. A transport vessel is any land-based mode of

transportation (typically, a truck or railcar) equipped with a storage tank having a capacity greater than 1,000 gallons. Unloading operations are those operations that transfer VOCs from a transport vessel to a stationary storage tank. Fueling of heavy equipment from a stationary storage tank or from a service truck with a storage capacity of 1,000 gallons or less does not constitute either a loading or unloading operation.

At some sites, loading and unloading operations are conducted at one location using the same equipment subject to both loading requirements and unloading requirements. In the previous version of the GOP, requirements for loading operations were contained in the permit tables and requirements for unloading operations were contained in a site-wide term. The executive director proposes to delete the site-wide terms.

This change requires applicants in non-attainment or covered attainment counties subject to 30 TAC Chapter 115 to identify a GOP Index Number in (c)(6), as appropriate, to identify requirements for unloading only operations that were previously specified in the terms. Applicants may have previously identified GOP index numbers in (c)(6) for loading operations. If unloading operations are also conducted at this location at the site, the applicant has the option to identify one index number that addresses both loading and unloading requirements to replace the previously identified index number for loading operations or to identify an additional index number to address the unloading operations.

- The executive director revised the wording for the 30 TAC Chapter 115 terms in GOP Number 514(b)(11), renumbered from GOP Number 514(b)(10), to specify that the requirements under GOP Number 514(b)(11) are for 30 TAC Chapter 115, Subchapter C, Division 2 (Filling of Gasoline Storage Vessels (Stage 1) for Motor Vehicle Fuel Dispensing Facilities).
- The executive director revised GOP Number 514(b)(12), renumbered from GOP Number 514(b)(11), to specify the permit holder at the site is exempt from the testing and recordkeeping requirements for the transport vessels. The site will not own these transport vessels and therefore is not subject to these requirements.
- The executive director added new GOP Number 514(b)(13) relating to 30 TAC Chapter 115 requirements for surface coating operations. Title 30 TAC Chapter 115 was revised to include counties contained in this GOP for surface coating and this revision reflects this change.
- The executive director revised the 40 Code of Federal Regulations (CFR) Part 60, Subpart A (General Provisions), requirements in GOP Number 514(b)(14), renumbered from GOP Number 514(b)(12), to remove the reference to 40 CFR § 60.9 (Availability of Information). The section concerning availability of information applies to the EPA administrator or the TCEQ executive director and not to a holder of an ATO under GOP Number 514. This change makes the terms consistent with the SOP site-wide requirements.
- The executive director removed GOP Number 514(b)(16), relating to the recordkeeping requirements of 40 CFR Subpart GG (Standards of Performance for Stationary Gas Turbines), because these requirements have been added to the permit table in GOP Number 514 (c)(11).
- The executive director replaced the 40 CFR Part 63, Subpart A (General Provisions), requirements with the requirements of 30 TAC § 113.100 (General Provisions [40 CFR Part 63, Subpart A]) in GOP Number 514(b)(20), renumbered from GOP Number 514(b)(19). Section 113.100 adopts 40 CFR Part 63, Subpart A by reference, with amendments. This change makes the terms consistent with the SOP site-wide requirements.
- The executive director removed previous GOP Number 514(b)(20) relating to the requirements in 40 CFR

Part 63, Subpart HH (National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities) because these requirements have been added to the permit table in GOP Number(c)(1)

- The executive director added new GOP Number 514(b)(21), renumbered from GOP Number 514(b)(20), relating to the establishment of federally-enforceable emission limits.
- The executive director revised the 40 CFR Part 82 (Protection of Stratospheric Ozone) requirements in GOP Number 514(b)(23)(A), renumbered from GOP Number 514(b)(22)(A), to add a reference to “non-exempt substitutes.” This change is made to reflect changes promulgated in 40 CFR Part 82 on April 13, 2005.
- The executive director revised GOP Number 514(b)(24), renumbered from GOP Number 514(b)(23), relating to the generation of discrete emission reduction credits (DERCs).
- The executive director added new GOP Number 514(b)(26) to codify the requirements for use of DERCs under 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading).
- The executive director added new GOP Number 514(b)(27) to include the sections of Chapter 101 (General Air Quality Rules) that are applicable requirements.
- The executive director added new GOP Number 514(b)(28), relating to CAM requirements.
- The executive director added new GOP Number 514(b)(29), relating to periodic monitoring requirements.

Section (c) of GOP Number 514 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 “Federal Operating Permit Application Guidance.”

Many of the applicable requirements codified in section (c) of the draft GOP Number 514 remain consistent. Several changes or additional tables were necessary due to new applicable requirements and revised applicable requirements.

Permit holders operating under an index number in a permit table that has been revised may need to update their applications since applicability determinations and the determination of basis affecting the emission units may have changed. The following permit tables contain modifications or corrections. Details of the modification or corrections to indexed requirements are contained in Appendix C to this statement of basis.

- GOP Number 514(c)(2) - Glycol Dehydration Unit Vents affected by 40 CFR Part 63, Subpart HH.
- GOP Number 514(c)(3) - Ancillary Equipment (Compressors, Pumps, Pressure Relief Devices, Sampling Connection Systems, Open-ended Valves or Lines, Valves, Flanges, or Other Connectors) affected by 40 CFR Part 63, Subpart HH
- GOP Number 514(c)(5) - Incinerators affected by 30 TAC Chapter 111.
- GOP Number 514(c)(6) - VOC Loading and Unloading Operations affected by 30 TAC Chapter 115, Subchapter C, Division 1.
- GOP Number 514(c)(7) - Stationary Gas Turbines affected by 40 CFR Part 60, Subpart GG.
- GOP Number 514(c)(8) - Storage Vessels affected by 40 CFR Part 60, Subparts K and Ka.
- GOP Number 514(c)(9) - Storage Vessels affected by 40 CFR Part 60, Subpart Kb.
- GOP Number 514(c)(10) - Gas Sweetening Units Not Utilizing Sulfur Recovery affected by 40 CFR Part 60, Subpart LLL.
- GOP Number 514(c)(12) - Flares affected by 40 CFR Part 60, Subpart A (General Provisions).
- GOP Number 514(c)(13) - Gas Sweetening Units Utilizing Sulfur Recovery affected by 40 CFR Part 60,

Subpart LLL.

- GOP Number 514(c)(14) - Gas Sweetening Units Utilizing Sulfur Recovery affected by 30 TAC Chapter 112 (Control of Air Pollution from Sulfur Compounds).
- GOP Number 514(c)(17) - Flares affected by 40 CFR Part 63, Subpart A (General Provisions).

The following new permit tables are included in the GOP.

- GOP Number 514(c)(18) - Stationary Internal Combustion Engines affected by 30 TAC Chapter 117, Subchapter B, Division 3 (Industrial, Commercial, and Institutional Combustion Sources in Ozone Nonattainment Areas).
- GOP Number 514(c)(19) - Cold Cleaning Degreasing Operations affected by 30 TAC Chapter 115, Subchapter E, Division 1 (Degreasing and Clean-Up Processes).
- GOP Number 514(c)(20) - Stationary Combustion Turbines affected by 40 CFR Part 63, Subpart YYYYY (National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines).
- GOP Number 514(c)(21) - Stationary Reciprocating Internal Combustion Engines (SRIC) Engines affected by 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines).
- GOP Number 514(c)(22) - Boilers affected by 40 CFR Part 63, Subpart DDDDD (Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives).
- GOP Number 514(c)(23) - Process Heaters affected by 40 CFR Part 63, Subpart DDDDD (Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives).

## COMPLIANCE ASSURANCE MONITORING

GOP Number 514 has been revised to include 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 Guidance Document" appropriate for an oil and gas site.

The following are the required steps for determining appropriate CAM options:

1. The permit holder shall first identify if the emission unit is subject to CAM. In addition, the permit holder must check the list of exemptions in GOP Number 514(d) to make sure the emission unit is subject to the CAM requirements. If the emission unit meets one of the exemptions listed, then the emission unit is exempt from the monitoring requirements of CAM. If the emission unit isn't subject to an exemption then the permit holder shall proceed to identify the appropriate monitoring option in the CAM option tables.
2. The permit holder shall select the control device used to comply with the underlying emission limitation or standard. Different control devices are identified in shaded rows throughout the table. The monitoring options appropriate for each control device are listed below the shaded row identifying the control device. *If multiple control devices are needed to comply with an emission limitation or standard for a unit, the permit holder shall select a monitoring option for each control device.* If the permit holder is having trouble identifying the type of control device, the definition of control device is contained in 30 TAC § 122.10 (General Definitions) and 40 CFR § 64.1 (Definitions). In addition, the underlying applicable requirement further defines individual types of control devices. Therefore, if the control device is installed to meet the requirements of a state regulation, the appropriate definition for that particular control device should be contained in either 30 TAC Chapter 101 (General Air Quality Rules) or in the definitions contained in the underlying applicable requirement. If the underlying requirement is a federal regulation, then the federal definition for the individual control device is the most appropriate.
3. After the appropriate control device has been identified, the permit holder shall select the indicator(s) that will be monitored. Any monitoring option, appropriate for the type of control device and size of the emission unit, can be utilized to meet the CAM requirements. However, note that the emission unit may



already be subject to monitoring requirements which are contained in the underlying applicable requirement. The CAM Options Table document may have a monitoring option for the permit holder to choose that will represent the monitoring requirements from the underlying applicable requirement. Therefore, to minimize the monitoring requirements applicable to a given emission unit, the permit holder may choose the monitoring option that coincides with the monitoring in the underlying applicable requirement.

To help clarify, the following example is provided. A stationary gas turbine is subject to 40 CFR § 60.332 (Standard for Nitrogen Oxides), a standard for NO<sub>x</sub>. The stationary gas turbine uses water injection to control emissions of NO<sub>x</sub>. Therefore, the owner or operator of the stationary gas turbine is subject to the monitoring requirements contained in 40 CFR § 60.334 (Monitoring of Operations), which state that the owner or operator shall install a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. Therefore, to minimize the amount of monitoring the permit holder will have to conduct for the stationary gas turbine, the applicant should choose the CAM monitoring option, contained in the table, for monitoring the fuel consumption and the ratio of water to fuel being fired in the turbine. However, the owner or operator has the ability to choose a different monitoring option, other than monitoring the fuel consumption and the ratio of water to fuel being fired in the turbine, to demonstrate compliance with the CAM requirements for an emission unit, such as using a portable analyzer. In this case, the owner or operator must monitor the fuel consumption and the ratio of water to fuel being fired in the turbine to demonstrate compliance with 40 CFR Part 60, Subpart GG, and must monitor NO<sub>x</sub> emissions using a portable analyzer to demonstrate compliance with the CAM requirements.

The indicator(s) are located in the first column of the table. Each indicator or combination of indicators begins with a new number. For further clarification, a dotted line is placed in between multiple indicators to represent a combination of indicators that must be monitored together. For example, one of the options for a wet scrubber specifies monitoring both pressure drop and liquid flow rate. This item represents one monitoring option that has two indicators that need to be monitored. The pressure drop and liquid flow rate are separated by a dotted line to represent that the combination of pressure drop and liquid flow rate must be monitored.

4. Once the indicator(s) is selected, the permit holder shall determine if the monitoring options for small emission units or large emission units are appropriate. A "Small" designation in the cell to the right of the indicator identifies appropriate monitoring options for small units subject to CAM. Small units are those with a pre-control device potential to emit greater than the major source thresholds, but post-control device potential to emit less than the major source thresholds. Large units are those with a pre-control device and post-control device potential to emit greater than the major source thresholds. If a designation of "Small/Large" appears in the cell to the right of the indicator, the option is appropriate for both small and large units subject to CAM. Large units should always use the monitoring options with the designation of "Small/Large". Small units have the option of using monitoring options with either a "Small" or "Small/Large designation".
5. After the appropriate size is determined, the remaining monitoring requirements are defined. The column "Monitoring Specifications and Procedures" may establish the calibration frequency and the accuracy requirements for the control device. This column may also specify procedures or test methods to be used in collecting the monitoring data. Therefore, this particular column will specify all the quality assurance and control procedures, verification procedures, and specifications for obtaining data that is representative of the indicator being monitored to satisfy the CAM requirements.

In addition, the deviation limit or procedures for establishing a deviation can also be found in the "Monitoring Specifications and Procedures" column. The deviation limit may be expressed as a value, a range or a condition. Unless the deviation limit is specifically defined by the monitoring option (for example, 1500 degrees Fahrenheit), a proposed deviation limit and a justification for the proposed deviation limit must be submitted in the application using the Form OP-MON (Monitoring Requirements).

For most monitoring options, the CAM Options Tables contain procedures for establishing deviation limits. These procedures require that a minimum and/or maximum (as appropriate) indicator value be established using a performance test, manufacturer's recommendations, engineering calculations, or historical data. However, some deviation limits are the underlying emission limitation.

6. The minimum frequency for collecting the monitoring data is specified in the next column as once per day, four times per hour, six times per minute, and so forth. The permit holder may elect to collect monitoring data on a more frequent basis than is required by the monitoring option and average the data, consistent with the averaging time specified in the monitoring option, 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. In addition, all monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c) (Operation of Approved Monitoring), which states:

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 emission unit is operating.

7. If appropriate, an averaging time is provided in the column entitled, "Average." An "n/a" in this column indicates that an averaging time is not appropriate. An "n/a\*" in this column indicates that the permit holder may elect to collect monitoring data on a more frequent basis than is required by the monitoring option and calculate a daily average for purposes of determining whether a deviation has occurred.
8. The final column in the table is the "CAM Option Number" and is used to define the monitoring option(s) selected. Each monitoring option has a unique number that should be submitted using Form OP-MON. It is important to note that the Option Numbers listed may not be in sequential order.

## **PERIODIC MONITORING**

GOP Number 514 has been revised to include periodic monitoring. Section (f) includes the periodic monitoring applicability criteria and additional monitoring requirements. Section (g) contains the Periodic Monitoring Option Tables. The executive director has made an effort to include all possible periodic monitoring options from the "Periodic Monitoring Guidance Document" appropriate for an oil and gas site.

The following are the required steps for determining appropriate periodic monitoring options:

1. 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.

The permit holder should identify if each emission unit is subject to the requirement for periodic monitoring under 30 TAC §122.602 (Periodic Monitoring Applicability). If an emission unit is subject to an underlying applicable requirement which is identified as requiring additional periodic monitoring, then a monitoring option appropriate for the emission unit will be contained in the Periodic Monitoring Options Tables. The permit holder must identify the type of contaminant associated with each of the underlying standards subject to periodic monitoring and locate that contaminant type in the first column of the Periodic Monitoring Option Table labeled "Emission".

2. Once the appropriate contaminant has been identified, the permit holder shall select the control device (if appropriate) used to comply with the emission limitation or standard. Different control devices are

identified in shaded rows throughout the table. The monitoring options appropriate for each control device are listed below the shaded row identifying the control device. *If multiple control devices are needed to comply with an emission limitation or standard for a unit, the permit holder shall select a monitoring option for each control device.* If a control device is not utilized to comply with an emission limitation or standard or the emission limit or standard is for fugitive emissions, the permit holder shall select the appropriate monitoring option below the shaded row titled "All Emission Units."

3. After the appropriate option has been identified, the permit holder shall select the indicator(s) that will be monitored. A dotted line between indicators represents a combination of parameters that must be monitored together. In addition, each separate indicator or combination of indicators begins with a new number. For example, one of the options for a wet scrubber specifies monitoring both pressure drop and liquid supply pressure. Generally, any monitoring option provided for an emission limitation or standard for a particular control device will be an appropriate option.
4. Once the indicator(s) is selected, the monitoring requirements are presented in the column entitled "Periodic Monitoring Requirement," and may include the deviation limit or procedures for establishing a deviation limit, procedures or test methods to be used in collecting the monitoring data, or quality assurance and quality control requirements.
5. The minimum frequency for collecting the monitoring data is specified in the column entitled "Min Freq." as once per day, six times per minute, and so forth. 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 Option Tables 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. All monitoring data shall be collected during periods that are typical of normal operation of the emission unit and control equipment.
6. If appropriate, an averaging time is provided in the column entitled "Average." An "n/a" in this column indicates that an averaging time is not appropriate. An "n/a\*" in this column indicates that the permit holder may elect to collect monitoring data on a more frequent basis than is required by the Periodic Monitoring Option Tables and calculate the specified average for purposes of determining whether a deviation has occurred.
7. The final column in the Periodic Monitoring Option Tables is entitled "PM Option Number." These numbers are used to define the monitoring option(s) selected. Each monitoring option has a unique index number that should be submitted in the application for periodic monitoring. To include periodic monitoring, submit Form OP- MON.

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 514(c)(8) - Storage Vessels affected by 40 CFR Part 60, Subparts K and Ka.
- GOP Number 514(c)(14) - Gas Sweetening Units Utilizing Sulfur Recovery affected by 30 TAC Chapter 112 (Control of Air Pollution from Sulfur Compounds).
- GOP Number 514(c)(19) - Cold Cleaning Degreasing Operations affected by 30 TAC Chapter 115, Subchapter E, Division 1 (Degreasing and Clean-Up Processes).

## **ORIGIN OF MONITORING OPTIONS**

The CAM and periodic monitoring options developed by the executive director are based on federal and state regulations, historical NSR permits and EPA guidance and training. Appendix B contains a table indicating the rules upon which the monitoring options are based. It should be noted that this table is not an exhaustive list of the derivation of monitoring. Appendix B should not be used to determine CAM or periodic monitoring applicability. It should only be used as a tool to determine the origin of the types of monitoring contained in the tables in sections (e) and (g).

### FEDERAL REGULATORY APPLICABILITY DETERMINATIONS

The following chart summarizes the applicability of the principal air pollution regulatory programs that may apply to areas permitted under GOP Number 514:

<b>Regulatory Program</b>	<b>Applicability (Yes/No)</b>
PSD	No
Nonattainment NSR	No
State NSR	Yes
40 CFR Part 60	Yes
40 CFR Part 61	Yes
40 CFR Part 63	Yes
Title IV	No
Title V	Yes
Title VI	Yes

The permit tables include the applicability determinations for the emission units based on the index number(s) and all relevant unit attribute information. Each combination of unit attribute 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 [http://www.tceq.state.tx.us/permitting/air/nav/air\\_ua\\_forms.html](http://www.tceq.state.tx.us/permitting/air/nav/air_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, and boiler fuel type. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. 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 APD has developed the GOP permit tables for determining applicability of state and federal regulations based on the unit attribute information.

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, reporting and testing (MRRT). Appendix A provides information relating the permit table locations within GOP Number 512 to the corresponding Unit Attribute Form, equipment category covered by the permit table, and potentially applicable requirements on the permit table. Each permit table can be interpreted as a series of “paths” for achieving applicable regulatory requirements and MRRT requirements. Starting on the left-hand side of a permit table, proceed down the first column to the attribute describing the

unit. After finding the correct attribute, move directly to the right and into the next attribute column. This move will provide a subset of attributes based on the previous attribute. Choose the correct attribute from this subset and, again, move directly to the right, into the next attribute column, and choose the next correct attribute subset. Continue this process until the index number and corresponding applicable requirements, which are unique to the attribute path, are reached. The index number will be entered on the Unit Attribute Form next to the corresponding unit identification number.

## **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.

## **NEW SOURCE REVIEW REQUIREMENTS**

NSR permits are incorporated by reference in the GOP 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 514 only covers sites containing emission units authorized by PBR and standard permits and codified into this GOP. The PBRs and standard permits codified in this GOP include the version effective as of the date of this GOP issuance and all previous versions. The PBRs codified into GOP Number 514 include:

- 30 TAC § 106.102 (Comfort Heating);
- 30 TAC § 106.103 (Air Conditioning and Ventilation Systems);
- 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 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 § 106.371 (Cooling Water Units);
- 30 TAC § 106.372 (Industrial Gases);
- 30 TAC § 106.373 (Lime Slaking Facilities);
- 30 TAC § 106.411 (Steam or Dry Cleaning Equipment);
- 30 TAC § 106.412 (Fuel Dispensing);
- 30 TAC § 106.433 (Surface Coat Facility);
- 30 TAC § 106.451 (Wet Blast Cleaning);
- 30 TAC § 106.452 (Dry Abrasive Cleaning);

- 30 TAC § 106.454 (Degreasing Units);
- 30 TAC § 106.472 (Organic and Inorganic Liquid Loading and Unloading);
- 30 TAC § 106.473 (Organic Liquid Loading and Unloading);
- 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); 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); and
- Air Quality Standard Permit for Electric Generating Units.

## **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. 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 no later than 30 days after the end of the certification period. A copy of the compliance certification will also be made accessible to the EPA.

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 should 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 should be submitted no later than 30 days after the end of each reporting period. It is also important to note that 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. Owners or operators needing information regarding annual compliance certifications or deviation reports should contact the TCEQ Office of Compliance and Enforcement, Field Operations Division at (512) 239-0400.

## **AVAILABLE UNIT ATTRIBUTE FORMS**

The following is a list of unit attribute forms applicable to GOP Number 514 applications:

- 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-UA62 - Glycol Dehydration Unit Attributes

## **HEARING AND COMMENTERS**

The GOP was subject to a 30-day comment period and a notice and comment hearing was held in Austin on July 6, 2006 at the commission's central office. No verbal or written comments were submitted at the hearing. Written comments were received from the Texas Pipeline Association (TPA).

## **RESPONSE TO COMMENTS**

### **Comment 1**

TPA commented on the CAM and periodic monitoring options available in the GOP. TPA commented that the options are key to being able to cover multiple sites with the Oil and Gas GOP. If these tables omit monitoring options that are widely used, oil and gas sites will not be able to opt into the GOP and the former GOP site will have to apply for an SOP. TPA's comments on the CAM and periodic monitoring tables were presented in tables. Some of the monitoring options provided by TPA were provided in order to reflect current practice; others were presented in order to be more inclusive of regulatory monitoring options available to a particular source.

### **Response 1**

**The executive director appreciates TPA's comments.**

### **Comment 2**

TPA requested a definition to distinguish between "small" and "large" units in the CAM monitoring option tables.

### **Response 2**

**The executive director has added definitions for small, large, and small/large units in the CAM monitoring option table where the first instance of these appear.**

### **Comment 3**

TPA requested the title "Control Device: All NO<sub>x</sub> Control Devices" be renamed to "All NO<sub>x</sub> Control Devices not Otherwise Verified."

### **Response 3**

**The executive director has made no changes in response to this comment. Any control device can use this option; it is not only for those not listed.**

### **Comment 4**

For option CAMG-OG-NO-002, TPA requested the following be added: "use method specified in 30 TAC § 117.211(e)(1) and § 117.211(e)(3)-(5) or § 106.512(2)(C)(iii), as applicable to stack test unit for NO<sub>x</sub> emissions."

**Response 4**

The executive director has made no changes in response to this comment. Monitoring option CAMG-OG-NO-002 is for units operating with a continuous emissions monitoring system (CEMS). Title 30 TAC § 117.211(e)(1) and § 117.211(e)(3)-(5) are for units operating without a CEMS or predictive emissions monitoring system (PEMS). Monitoring option CAMG-OG-CC-004 is available for those units operating without a CEMS or PEMS. Monitoring option CAMG-OG-CC-004 contains the monitoring requirements that are in 30 TAC § 106.512(2)(C)(iii) and may be used as an alternative to CAMG-OG-NO-002. The statement of basis now contains a table explaining the regulatory origin of each monitoring option.

**Comment 5**

TPA recommended changing the deviation limit for option CAMG-OG-FL-001 to read "confirmed alarm and no pilot flame." In addition, TPA recommended changing the minimum frequency from continuous to once per day.

**Response 5**

The executive director has made no changes in response to this comment. The monitoring option in CAMG-OG-FL-001 is consistent with 40 CFR § 60.18, which requires the presence of a pilot flame and continuous monitoring.

**Comment 6**

TPA recommended adding the following to option CAMG-OG-FL-002: "visible emissions observations shall be made and recorded in the flare operation log in accordance with 30 TAC § 111.111(a)(4)(A)(ii)."

**Response 6**

The executive director has made no changes in response to this comment. Option CAMG-OG-FL-003 is the option which contains the requirements as stated in § 111.111(a)(4)(A)(ii).

**Comment 7**

TPA recommended adding that the net heating value should be determined from a composite sample and not a grab sample, as inferred by the minimum frequency of "once per day" in option CAMG-OG-FL-005.

**Response 7**

The executive director has made no changes in response to this comment. This monitoring option does not specify the type of sample. An analyzer that takes the composition of the sample is allowed, however it must still be taken once per day.

**Comment 8**

TPA questioned the origin of option CAMG-OG-FL-006 and asked why it is more stringent than 40 CFR Part 60 (Standards of Performance for New Stationary Sources).

**Response 8**

The executive director, when developing the monitoring guidance documents, included monitoring options that permit holders are already doing. This specific option is based on requirements in NSR permits for this type of control device monitoring the inlet flow rate. Other monitoring options are available for these types of units.

**Comment 9**

TPA asked for clarification of the title "Control Device: Steam Generating Unit (Boiler/Process Heater (Design Heat Input Capacity lesser than or equal to 44MW)). Specifically, TPA asked what kind of units these are and for what are they used. TPA asked what source would use a steam generating unit as a control device and indicated that the name of the title implied it is for a heater used as a VOC control device.



**Response 9**

Title 40 CFR Part 60 defines a steam generating unit as "a device that combusts any fuel and produces steam or heats water or any other heat transfer medium." The steam generating unit can be a control device or it can use the off-gas being controlled as a unit. Since the federal and state regulations may have differing definitions, the monitoring options in this section were intended for boilers, process heaters and/or steam generating units that are less than 44 megawatts. A footnote was added to the monitoring option table defining a steam generating unit.

**Comment 10**

TPA recommended a deviation limit of the maximum "average" exhaust gas temperature for option CAMG-OG-CS-001 and averaging on a weekly basis.

**Response 10**

The executive director has made no changes in response to this comment. The executive director does not prohibit averaging, however the minimum frequency must remain "once per day."

**Comment 11**

TPA recommended changing the averaging time in option CAMG-OG-CS-002 to be 24-hours, as opposed to the current one-hour.

**Response 11**

The executive director agrees. Based on the requirements in 40 CFR Part 63, Subpart HH, daily averaging is allowed for this type of control device. Option CAMG-OG-CS-003 has been added with an averaging time of daily.

**Comment 12**

TPA asked for clarification of the title "Control Device: Selective Non-Catalytic Reduction (SNCR)." Specifically, TPA asked what it is and if it is different from non-selective catalytic reduction (NSCR). In addition, TPA noted that oil and gas sites do not use SNCRs as control devices.

**Response 12**

SNCR devices are typically boilers and process heaters. There are two commercially available SNCR processes: Thermal DeNO<sub>x</sub>, which uses ammonia as the reducing agent and NO<sub>x</sub>OUT, which uses urea as the reducing agent. NSCR devices are often referred to as three-way conversion catalyst systems because they reduce NO<sub>x</sub>, unburned hydrocarbons, and carbon monoxide, simultaneously. NSCRs are referred to as catalytic converters in this GOP. The section titled "Control Device: Catalytic Converters" has been renamed to "Control Device: Non-Selective Catalytic Reduction (Catalytic Converters)." In addition, at the request of TPA, the section for SNCRs has been removed from the monitoring options in sections (e) and (f) because, as indicated by TPA, oil and gas sites do not use SNCRs as control devices.

**Comment 13**

TPA recommended adding "or 30 TAC § 106.512(2)(C)(iii), as applicable" to option CAMG-OG-CC-002.

**Response 13**

The executive director has made no changes in response to this comment. Option CAMG-OG-CC-004 contains the requirements as stated in § 106.512(2)(C)(iii).

**Comment 14**

TPA recommended adding "must be met, where applicable" as opposed to "apply" to option CAMG-OG-CC-006.

**Response 14**

The conditions in 30 TAC § 117.213(g)(1)(B)(ii)(I) and (II) must be met, in addition to the other requirements in this monitoring option. The executive director has changed the end of option CAMG-OG-CC-006 to read as follows: "In addition, the conditions of 30 TAC § 117.213(g)(1)(B)(ii)(I) and (II) must be met."

#### **Comment 15**

TPA requested the language "or other method approved by the executive director" be added to options CAMG-OG-CC-010 and CAMG-OG-CC-012.

#### **Response 15**

The executive director has made no changes in response to this comment. GOPs may only be used by sites with similar emission units. Requirements, including monitoring, that must have case-by-case approval from the executive director are not allowed in GOPs.

#### **Comment 16**

TPA recommended changing the minimum frequency for options CAMG-OG-CC-039 and CAMG-OG-CC-040 from four times per hour to once per day.

#### **Response 16**

"Large" units must monitor four times per hour, while "Small" units may monitor once per day. This monitoring option is for "Small/Large" units. If a designation of "Small/Large" appears in the cell to the right of the indicator, the option is appropriate for both small and large units subject to CAM. Large units should always use the monitoring options with the designation of "Small/Large." Small units have the option of using monitoring options with either a "Small" or "Small/Large" designation. Option CAMG-OG-CC-039 is designated for "Small/Large" units and is intended to be a "Large" option, but the executive director wanted to give the flexibility to "Small" units to use continuous monitoring and this option. No change was made in response to this comment.

#### **Comment 17**

TPA commented that the minimum frequency in option PMG-OG-P-029 was not applicable.

#### **Response 17**

The executive director agrees and has revised the minimum frequency to read as follows: "update reports annually or at any time an alternate fuel is used."

#### **Comment 18**

TPA recommended changing the title for "All Emission Units (Except Flare and Carbon Adsorption System)" to "All Emissions (Except Types of Units Otherwise Specified)."

#### **Response 18**

The executive director has made no changes in response to this comment. The options listed are for any emission unit that is not a flare or carbon adsorption system. If the title is changed as requested it will not refer to the same type of unit.

#### **Comment 19**

TPA requested the following language be added to option PMG-OG-V-001: "...monitor VOC concentration at the end of the control device."

#### **Response 19**

The executive director agrees and has made the revision to option PMG-OG-V-001.

#### **Comment 20**

TPA recommended adding to option PMG-OG-V-058 an additional option for VOC concentration. TPA recommended conducting a visual, olfactory and audible inspection at least once per quarter.

#### **Response 20**

**The executive director has made no changes in response to this comment. Option PMG-OF-V-059 is the monitoring option for VOC concentration for units with a vapor collection system as the control device. If option PMG-OG-V-058 is used, option PMG-OG-V-059 must also be conducted as indicated by the table.**

#### **Comment 21**

TPA recommended making the monitoring data "confirmed" in options PMG-OG-V-003, PMG-OG-V-007 and PMG-OG-V-008. TPA also recommended adding that the visible emissions observations in PMG-OG-V-053 should include the language "in accordance with 30 TAC § 111.111(a)(4)(A)(ii).

#### **Response 21**

**The executive director has made no changes in response to this comment in order to remain consistent with 40 CFR § 60.18, which requires the presence of a pilot flame and continuous monitoring. Monitoring options PMG-OG-V-003, PMG-OG-V-007, PMG-OG-V-008 and PMG-OG-V-053 include the language that is contained in 30 TAC § 111.111.**

#### **Comment 22**

TPA requested that the minimum frequency in option PMG-OG-C-001 be changed from once per week to monthly.

#### **Response 22**

**The executive director agrees. Option PMG-OG-C-003 has been added with a minimum frequency of monthly.**

#### **Comment 23**

TPA requested an option for stain tubes for monitoring VOC concentration in options PMG-OG-V-014 and PMG-OG-V-020. In addition, TPA recommended changing the minimum frequency of monitoring from once per week to quarterly for these two options.

#### **Response 23**

**The executive director has made no changes in response to this comment. Stain tubes are not allowed as options in the monitoring tables because the accuracy of these devices is not as high as other devices. Quarterly monitoring is not frequent enough for this option.**

#### **Comment 24**

TPA recommended changing the minimum frequency of monitoring from monthly to quarterly for option PMG-OG-V-052.

#### **Response 24**

**The executive director has made no changes in response to this comment. Quarterly monitoring is not frequent enough for this option.**

#### **Comment 25**

TPA recommended adding "or § 106.512(2)(C)(iii), as applicable" to option PMG-OG-N-036.

#### **Response 25**

**The executive director has made no changes in response to this comment. Option PMG-OG-N-055 contains the requirements included in § 106.512(2)(C)(iii). The applicant may choose this option, in lieu**

of PMG-OG-N-036, in order to comply with the monitoring in § 106.512(2)(C)(iii).

**Comment 26**

TPA requested clarification on the applicability of periodic monitoring. Specifically, TPA asked for identification of those emission limitations that have sufficient monitoring and do not require periodic monitoring. In addition, TPA asked if periodic monitoring is only applicable to units with control devices.

**Response 26**

**Periodic monitoring applies to emission units at a site that are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement. This includes emission units without a control device. Emission limitations or standards identified in 30 TAC § 122.602(b) that the executive director has determined have sufficient monitoring are not required to have periodic monitoring. These emission limitations are not specifically identified in the GOP, but rather the executive director has indicated those emission limitations that do not have sufficient monitoring. When reviewing the permit tables, if the index number has a monitoring/testing requirement listed as "Periodic Monitoring," then the unit requires periodic monitoring and an option must be chosen from the Periodic Monitoring Options Tables in section (g) of the GOP. If the phrase "Periodic Monitoring" is not listed for the index number, then no periodic monitoring is required and the executive director has determined that this emission limitation or standard has sufficient monitoring.**

**Comment 27**

TPA requested the GOP be revised to include Pipeline Facilities Permits (PFPs) and Voluntary Emission Reduction Permits (VERPs). Many facilities were authorized by PFPs or VERPs without the need to add emission controls due to the ability to average emission reductions achieved at other facilities. Therefore, no additional or case-by-case NSR requirements are applicable to these facilities. For this reason, TPA believes that sites with facilities authorized by a PFP or a VERP should be eligible for authorization by the Oil and Gas GOP.

**Response 27**

**The executive director has made no changes in response to this comment. The PFPs and VERPs are individual permits that receive a case-by-case review from the executive director. These permits are also required to publish individual notices. In addition, these permits are renewed every ten years and if there are changes at the facility, the permit is updated at renewal and these changes could not be reflected in the GOP.**

**Comment 28**

TPA offered their support of the removal of the testing and recordkeeping requirements associated with the owner of the transport vessel to comply with the 30 TAC Chapter 115 provisions for leak detection.

**Response 28**

**The executive director appreciates the support.**

## Appendix A

### Unit Attribute Forms and General Operating Permit Table Correlation

## Appendix A

### Unit Attribute Forms and General Operating Permit Table Correlation

**Table A-1: Unit Attribute Forms and General Operating Permit Table Correlation**

Equipment Category (UA Form)	Potentially Applicable Requirement	GOP Number and Permit Table Location			
		Number 511 <sup>1</sup>	Number 512 <sup>2</sup>	Number 513 <sup>3</sup>	Number 514 <sup>4</sup>
Internal Combustion Engine (UA2)	30 TAC Chapter 117, Subchapter B, Division 3 (Houston/Galveston)	(c)(23)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Beaumont/Port Arthur)	(c)(32)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Dallas/Fort Worth)	(c)(33)	None	None	None
	40 CFR Part 63, Subpart ZZZZ	(c)(36)	(c)(23)	(c)(23)	(c)(21)
Storage Vessel (UA3)	40 CFR Part 60, Subpart K	(c)(6)	(c)(12)	(c)(11)	(c)(8)
	40 CFR Part 60, Subpart Ka				
	40 CFR Part 60, Subpart Kb	(c)(7)	(c)(13)	(c)(12)	(c)(9)
	30 TAC Chapter 115, Subchapter B, Division 1	(c)(8)	(c)(4)	(c)(4)	
	40 CFR Part 63, Subpart HH	(c)(1)	(c)(1)	(c)(1)	(c)(1)
VOC Loading/Unloading Operations (UA4)	30 TAC Chapter 115, Subchapter C, Division 1	(c)(20)	(c)(6)	(c)(6)	(c)(6)
Process Heater/Furnace (UA5)	30 TAC Chapter 117, Subchapter B, Division 3 (Houston/Galveston)	(c)(4)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Beaumont/Port Arthur)	(c)(28)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Dallas/Fort Worth)	(c)(29)	None	None	None
	40 CFR Part 63, Subpart DDDDD	(c)(38)	(c)(25)	(c)(25)	(c)(23)
<b>Notes:</b>					
1. Oil and Gas General Operating Permit for Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties (GOP Number 511)					
2. Oil and Gas General Operating Permit for Gregg, Nueces, and Victoria Counties (GOP Number 512)					
3. Oil and Gas General Operating Permit for Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties (GOP Number 513)					
4. Oil and Gas General Operating Permit for All Counties Except Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Nueces, Orange, San Patricio, Tarrant, Travis, Victoria, and Waller Counties (GOP Number 514)					

**Table A-1: Unit Attribute Forms and General Operating Permit Table Correlation (continued)**

Equipment Category (UA Form)	Potentially Applicable Requirement	GOP Number and Permit Table Location			
		Number 511 <sup>1</sup>	Number 512 <sup>2</sup>	Number 513 <sup>3</sup>	Number 514 <sup>4</sup>
Boiler/Steam Generator (UA6)	40 CFR Part 60, Subpart Db	(c)(19)	(c)(20)	(c)(19)	(c)(16)
	40 CFR Part 60, Subpart Dc				
	30 TAC Chapter 117, Subchapter B, Division 3 (Houston/Galveston)	(c)(25)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Beaumont/Port Arthur)	(c)(26)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Dallas/Fort Worth)	(c)(27)	None	None	None
		(c)(37)	(c)(24)	(c)(24)	(c)(22)
Flares (UA7)	40 CFR Part 60, Subpart A	(c)(12)	(c)(16)	(c)(15)	(c)(12)
	40 CFR Part 63, Subpart A	(c)(34)	(c)(21)	(c)(20)	(c)(17)
	30 TAC Chapter 111, Subchapter A, Division 1	(c)(13)	(c)(8)	(c)(8)	(c)(4)
Gas Sweetening Unit Utilizing Sulfur Recovery (UA10)	40 CFR Part 60, Subpart LLL	(c)(14)	(c)(17)	(c)(16)	(c)(13)
	30 TAC Chapter 112	(c)(15)	(c)(18)	(c)(17)	(c)(14)
Gas Sweetening Unit not Utilizing Sulfur Recovery (UA10)	40 CFR Part 60, Subpart LLL	(c)(9)	(c)(14)	(c)(13)	(c)(10)
Stationary Gas Turbines (UA11)	40 CFR Part 60, Subpart GG	(c)(5)	(c)(11)	(c)(10)	(c)(7)
	30 TAC Chapter 117, Subchapter B, Division 3 (Houston/Galveston)	(c)(18)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Beaumont/Port Arthur)	(c)(30)	None	None	None
	30 TAC Chapter 117, Subchapter B, Division 3 (Dallas/Fort Worth)	(c)(31)	None	None	None
	40 CFR Part 63, Subpart YYYY	(c)(35)	(c)(22)	(c)(22)	(c)(20)
VOC Fugitive Emission (UA12)	40 CFR Part 60, Subpart KKK	(c)(10)	(c)(15)	(c)(14)	(c)(11)
	30 TAC Chapter 115, Subchapter D, Division 3	(c)(11)	None	None	None
	40 CFR Part 63, Subpart HH	(c)(3)	(c)(3)	(c)(3)	(c)(3)

**Table A-1: Unit Attribute Forms and General Operating Permit Table Correlation (continued)**

Equipment Category (UA Form)	Potentially Applicable Requirement	GOP Number and Permit Table Location			
		Number 511 <sup>1</sup>	Number 512 <sup>2</sup>	Number 513 <sup>3</sup>	Number 514 <sup>4</sup>
VOC Water Separator (UA14)	30 TAC Chapter 115, Subchapter B, Division 3	(c)(21)	(c)(7)	(c)(7)	None
Stationary Vents (UA15)	30 TAC Chapter 111, Subchapter A, Division 1	(c)(16)	(c)(19)	(c)(18)	(c)(15)
	30 TAC Chapter 115, Subchapter B, Division 2	(c)(17)	(c)(5)	(c)(5)	None
Cold Cleaning Degreasing Operations (UA16)	30 TAC Chapter 115, Subchapter E, Division 1	(c)(22)	(c)(9)	None	None
Incinerators (UA35)	30 TAC Chapter 111, Subchapter A, Division 2	(c)(24)	(c)(10)	(c)(9)	(c)(5)
Glycol Dehydration Unit Vents (UA62)	40 CFR Part 63, Subpart HH	(c)(2)	(c)(2)	(c)(2)	(c)(2)



## Appendix B

### Origin of Monitoring Options

Control Device	Origin of Monitoring
Non-Selective Catalytic Reduction (Catalytic Converter)	40 CFR Part 60, Subpart GG
	40 CFR Part 63, Subpart ZZZZ
	30 TAC Chapter 106
	30 TAC Chapter 116*
	30 TAC Chapter 117
VOC Control Devices (except Flares and Carbon Adsorption System)	40 CFR Part 60, Subpart III
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart RRR
	40 CFR Part 61, Subpart BB
	40 CFR Part 61, Subpart FF
	40 CFR Part 63, Subpart R
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
	EPA Source of Control of Volatile Organic Air Pollutant Manual
NO <sub>x</sub> Control Devices	40 CFR Part 60, Subpart A
	30 TAC Chapter 116
	30 TAC Chapter 117
	EPA Control of Nitrogen Oxides Emissions Manual
SO <sub>2</sub> Control Devices	40 CFR Part 60, Subpart A
	30 TAC Chapter 112
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Flare	40 CFR Part 60, Subpart A
	30 TAC Chapter 111
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document

Control Device	Origin of Monitoring
Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer/Thermal Oxidizer)	40 CFR Part 60, Subpart III
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart QQQ
	40 CFR Part 60, Subpart RRR
	40 CFR Part 61, Subpart BB
	40 CFR Part 63, Subpart G
	40 CFR Part 63, Subpart R
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
	Vapor Combustor
40 CFR Part 60, Subpart NNN	
40 CFR Part 60, Subpart QQQ	
40 CFR Part 60, Subpart RRR	
40 CFR Part 61, Subpart BB	
40 CFR Part 63, Subpart G	
40 CFR Part 63, Subpart R	
40 CFR Part 63, Subpart DD	
40 CFR Part 63, Subpart HH	
30 TAC Chapter 115	
30 TAC Chapter 116	
EPA CAM Technical Guidance Document	
Catalytic Incinerator	
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart QQQ
	40 CFR Part 60, Subpart RRR
	40 CFR Part 61, Subpart BB
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116

Control Device	Origin of Monitoring
	EPA CAM Technical Guidance Document
Steam Generating Unit (Boiler/Process Heater)	40 CFR Part 60, Subpart III
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart RRR
	40 CFR Part 61, Subpart BB
	40 CFR Part 63, Subpart G
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Carbon Adsorption System (Regenerative)	40 CFR Part 60, Subpart III
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart RRR
	40 CFR Part 63, Subpart G
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Carbon Adsorption System (Non-Regenerative)	40 CFR Part 60, Subpart QQQ
	40 CFR Part 61, Subpart FF
	40 CFR Part 63, Subpart EE
	40 CFR Part 63, Subpart HH
	40 CFR Part 63, Subpart MMM
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Condenser System	40 CFR Part 60, Subpart III
	40 CFR Part 60, Subpart NNN
	40 CFR Part 60, Subpart RRR
	40 CFR Part 63, Subpart G
	40 CFR Part 63, Subpart R

Control Device	Origin of Monitoring
	40 CFR Part 63, Subpart DD
	40 CFR Part 63, Subpart HH
	30 TAC Chapter 115
	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Selective Catalytic Reduction	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
	EPA Control of Nitrogen Oxides Emissions Manual
Flue Gas Recirculation	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
	EPA Control of Nitrogen Oxides Emissions Manual
Steam/Water Injection Systems	40 CFR Part 60, Subpart GG
	30 TAC Chapter 116
	30 TAC Chapter 117
	EPA Control of Nitrogen Oxides Emissions Manual
SO <sub>2</sub> Scrubber	30 TAC Chapter 116
	EPA CAM Technical Guidance Document
Sulfur Recovery Unit (Flare)	40 CFR Part 60, Subpart LLL
	30 TAC Chapter 116
Sulfur Recovery Unit (Incinerator)	40 CFR Part 60, Subpart LLL
	30 TAC Chapter 116
VOC/Water Separator with Enclosed Compartment	30 TAC Chapter 115
	30 TAC Chapter 116
Cold Solvent Cleaners	30 TAC Chapter 115
	30 TAC Chapter 116

\* 30 TAC Chapter 116 is in reference to the monitoring requirements historically used in NSR permits.

**Appendix C**  
**Index Number Changes**

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-01-xxx 63HH	No Changes	No Changes	No Changes	No Changes	No Changes	No Changes
514-02-091 63HH	§63.11(b) §63.762(b),(c) §63.764(a) §63.765(b)(1)(i),(2),(c)(3) §63.771(c)(1),(2),(d)(1),(iii),(4)(i) §63.773(c)(3),(4)	§63.771(d)(3) §63.772(c),(e),(2)(4)(ii) §63.773(c)(2)(i),(ii),(d)(3) (i)(C),(ii),(iii),(5)(i),(6)-(9) §63.775(a)	§63.760(a)(1)(ii) §63.762(d) §63.764(b) §63.773(d)(4) §63.774(a),(b)(1),(2),(3),(4)(i),(ii)(A),(5)-(8),(e) §63.775(b)(1)-(6),(d),(2),(6),(7),(9),(10),(e),(1),(2),(i),(ii),(A),(D),(iii),(v),(vii),(viii),(f)	§63.11(b) §63.762(b),(c) §63.764(a) §63.765(b)(1)(ii),(2),(c)(3) §63.771(c)(1),(2),(d)(1),(iii),(4)(i) §63.773(c)(3),(4)-(6)	§63.771(d)(3) §63.772(c),(e),(2),(4)(ii) §63.773(c)(2)(i),(ii),(d)(3) (i)(C),(5)(i),(6)-(9) §63.775(a)	§63.760(a)(1)(ii) §63.762(d) §63.773(d)(4) §63.774(a),(b)(1),(2),(3),(4),(i),(ii)(A),(5)-(8),(c),(d)(8),(e) §63.775(b)(1)-(6),(d),(2),(6)-(10),(e),(1),(2),(i),(ii),(A),(D),(iii),(vi)-(viii),(x),(f)
514-02-135	§63.11(b) §63.762(b),(c) §63.764(a) §63.765(b)(1)(ii),(2),(c)(3) §63.771(c)(1),(2),(d)(1),(ii),(4)(i) §63.773(c)(3),(4)	§63.771(d)(3) §63.772(c),(e),(2)(4)(ii) §63.773(c)(2)(i),(ii),(d)(3)(i)(C),(5)(i),(6)-(9) §63.775(a)	§63.760(a)(1)(ii) §63.762(d) §63.773(d)(4) §63.774(a),(b)(1),(2),(3),(4)(i),(ii),(5)-(8),(c),(d)(8),(e) §63.775(b)(1)-(6),(d),(2),(6)-(10),(e),(1),(2),(i),(ii),(A),(D),(iii),(vi)-(viii),(f)	§63.11(b) §63.762(b),(c) §63.764(a) §63.765(b)(1)(ii),(2),(c)(3) §63.771(c)(1),(2),(d)(1),(iii),(4)(i) §63.773(c)(3),(4)-(6)	§63.771(d)(3) §63.772(c),(e),(2),(4)(ii) §63.773(c)(2)(i),(ii),(d)(3),(i)(C),(5)(i),(6)-(9) §63.775(a)	§63.760(a)(1)(ii) §63.762(d) §63.773(d)(4) §63.774(a),(b)(1),(2),(3),(4),(i),(ii)(A),(5)-(8),(c),(d)(8),(e) §63.775(b)(1)-(6),(d),(2),(6)-(10),(e),(1),(2),(i),(ii),(A),(D),(iii),(vi)-(viii),(x),(f)
514-03-002 63HH	§63.764(a),(e)(2)(i)	§63.772(a) §63.775(a)	§63.760(a)(1)(ii) §63.774(a),(d)(2)(i)	§63.764(a),(e)(2)(i)	[G]§63.772(a) §63.775(a)	§63.760(a)(1)(ii) §63.774(a),(d)(2)(i)
514-03-004	§61.242-1(e) §63.769(c)	None	§61.246(e) §63.774(a)	§61.242-1(e) §63.769(c)	None	[G]§61.246(e) §63.774(a)
514-03-006	§61.242-1(a),(b),(d) §61.242-2(a)(2),(b)-(g) §61.242-10 §63.769(c)	§61.242-2 §61.245(b),(c),(d)	§61.246(a)-(c),(e),(h)-(j) §61.247(a),(b),(c),(e) §63.774(a)	§61.242-1(a),(b),(d) §61.242-2(a)(2),[G](b)-(e),(f)-(g) [G]§61.242-10 §63.769(c)	§61.242-2(a)(2), [G](d),(f) [G]§61.245(b)-(d)	[G]§61.246(a)-(c),[G](e), [G](h)-(i),(j) [G]§61.247(a)-(b),(c),[G](e) §63.774(a)
514-03-007	§61.242-1(a),(b),(d) §61.242-2 §61.242-10 §63.769(c)	§61.242-2 §61.245(b),(c),(d)	§61.246(a)-(c),(e),(h)-(j) §61.247(a),(b),(c),(e) §63.774(a)	§61.242-1(a),(b),(d) [G]§61.242-2 [G]§61.242-10 §63.769(c)	[G]§61.242-2 [G]§61.245(b)-(d)	[G]§61.246(a)-(c),[G](e), [G](h)-(i),(j) [G]§61.247(a)-(b),(c),[G](e) §63.774(a)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-03-009	§63.769(c) §61.242-3 §61.242-1(a)-(b),(d) §61.242-10	§61.242-3 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(b),(c),(e),(h),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) [G]§61.242-3 §61.242-1(a)-(b),(d) [G]§61.242-10	[G]§61.242-3 [G]§61.245(b)-(d)	§63.774(a) [G]§61.246(a)-(c), [G](e), [G](h)-(i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-010	§63.769(c) §61.242-1(a)-(b),(d) §61.242-10 §63.769(c)(1)(ii),(2),(3)	§61.242-4 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a)-(b),(d) [G]§61.242-4 [G]§61.242-10 §63.769(c)(2),(3)	<del>§61.242-4</del> [G]§61.245(b)-(d) §63.769(c)(1)(ii)	§63.774(a) [G]§61.246(a), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-011	§63.769(c) §61.242-4 §61.242-1(a)-(b),(d) §61.242-10	§61.242-4 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) [G]§61.242-4 §61.242-1(a)-(b),(d) [G]§61.242-10	[G]§61.242-4 [G]§61.245(b)-(d)	§63.774(a) [G]§61.246(a), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-012	§63.769(c) §61.242-4(c) §61.242-1(a)-(b),(d) §61.242-10 §63.769(c)(1)(ii),(2),(3)	§61.242-4 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-4(c) §61.242-1(a)-(b),(d) [G]§61.242-10 §63.769(c)(1)(ii),(2),(3)	<del>§61.242-4</del> [G]§61.245(b)-(d) §63.769(c)(1)	§63.774(a) [G]§61.246(a), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-013	§63.769(c) §61.242-1(a)-(b),(d) §61.242-6 §61.242-10	§61.245(d)	§63.774(a) §61.246(a),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a)-(b),(d) [G]§61.242-6 [G]§61.242-10	[G]§61.245(d)	§63.774(a) [G]§61.246(a), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-014	§63.769(c) §61.242-1(a),(b),(d) §61.247(b)-(h) §61.242-10 §61.243-1 §61.243-2	§61.242-7 §61.243-1 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(b),(c),(e),(f),(g),(i),(j) §61.247(a),(b),(c),(d),(e)	§63.769(c) §61.242-1(a),(b),(d) §61.242-7(b)-[G](c)-(h) [G]§61.242-10 [G]§61.243-1 [G]§61.243-2	[G]§61.242-7(c), [G](g)-(h) [G]§61.243-1 [G]§61.245(b)-(d)	§63.774(a) [G]§61.246(a)-(c), [G](e)-(g), [G](i),(j) [G]§61.247(a)-(b),(c),(d), [G](e)
514-03-015	§63.769(c) §61.242-1(a),(b),(d) §61.242-7 §61.242-10 §61.243-1 §61.243-2	§61.242-7 §61.243-1 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(b),(c),(e),(f),(g),(i),(j) §61.247(a),(b),(c),(d),(e)	§63.769(c) §61.242-1(a),(b),(d) [G]§61.242-7 [G]§61.242-10 [G]§61.243-1 [G]§61.243-2	[G]§61.242-7 [G]§61.243-1 [G]§61.245(b)-(d)	§63.774(a) [G]§61.246(a)-(c), [G](e)-(g), [G](i),(j) [G]§61.247(a)-(b),(c),(d), [G](e)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-03-016	§63.769(c) §61.242-1(a),(b),(d) §61.242-8 §61.242-10	§61.242-8 §61.245(b),(c),(d)	§63.774(a) §61.246(a),(b),(c),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a),(b),(d) [G]§61.242-8 [G]§61.242-10	[G]§61.242-8 [G]§61.245(b)-(d)	§63.774(a) [G]§61.246(a)-(c), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-017	§63.769(c) §61.242-1(a),(b),(d) §61.242-9	§61.245(d)	§63.774(a) §61.246(a),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a),(b),(d) [G]§61.242-9	[G]§61.245(d)	§63.774(a) [G]§61.246(a), [G](e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-018	§63.769(c) §61.242-1(a),(b),(d) §61.242-11(b),(e),(g)	§61.245(d)	§63.774(a) §61.246(a),(d),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a),(b),(d) §61.242-11(b),(e),(g), (m)	[G]§61.245(d)	§63.774(a) [G]§61.246(a), [G](d)-(e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-019	§63.769(c) §61.242-1(a),(b),(d) §61.242-11(c),(e),(g)	§61.245(d)	§63.774(a) §61.246(a),(d),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a),(b),(d) §61.242-11(c),(e),(g), (m)	[G]§61.245(d)	§63.774(a) [G]§61.246(a), [G](d)-(e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-020	§63.11(b) §63.769(c) §61.242-1(a),(b),(d) §61.242-11(e),(g)	§61.245(d),(e)	§63.774(a) §61.246(a),(d),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.11(b) §63.769(c) §61.242-1(a),(b),(d) §61.242-11(e),(g), (m)	[G]§61.245(d),(e)	§63.774(a) [G]§61.246(a), [G](d)-(e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-03-021	§63.769(c) §61.242-1(a),(b),(d) §61.242-10 §61.242-11(f)(1),(3),(4),(g)	§61.242-11(f)(1),(2) §61.245(b),(c),(d)	§63.774(a) §61.246(a),(d),(e),(i),(j) §61.247(a),(b),(c),(e)	§63.769(c) §61.242-1(a),(b),(d) [G]§61.242-10 [G]§61.242-11(f)(1),(3),(4),(g), (h)-(i), (m), [G](j)-(k), (m)	§61.242-11(f)(1),(2) [G]§61.245(b)-(d)	§61.242-11(d) §63.774(a) [G]§61.246(a), [G](d)-(e), [G](i),(j) [G]§61.247(a)-(b),(c), [G](e)
514-04-xxx 111-Flares	No Changes	No Changes	No Changes	No Changes	No Changes	No Changes
514-05-001	§111.121(7)	None	None	Reserved	Reserved	Reserved
514-05-002	§111.121(7)	None	§111.127(d)	§111.121(7)(6)	None	§111.127(d)



Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-06-002 115-L&U	§115.217(b)(4) §115.214(b)(1)(B)	§115.214(b)(1)(A),(i)	§115.216(3),(A),(B)	Reserved	Reserved	Reserved
514-06-003	§115.217(b)(2) §115.214(b)(1)(B)	§115.214(b)(1)(A),(i) §115.215(4)	§115.216(2) §115.216(3)(B)	§115.217(b)(2) §115.214(b)(1)(B),(D),(i)	§115.214(b)(1)(A),(i) §115.215(4)	§115.216(2),(3)(B)
514-06-004	§115.217(b)(3)(A) §115.214(b)(1)(B)	§115.214(b)(1)(A),(i) §115.215(4)	§115.216(2) §115.216(3)(B),(D)	§115.217(b)(3)(A) §115.214(b)(1)(B),(D),(i)	§115.214(b)(1)(A),(i) §115.215(4)	§115.216(2),(3)(B),(D)
514-06-005	§115.212(b)(1),(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(A),(3)(B),(C) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),(2),(4)-(5),(8)-(10) §115.216(1),(A),(i)	§115.216(1),(A),(i),(2),(3)(A),(B)	§115.212(b),(1),(A),(3)(A)(i)-(ii),(B),-[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(A),(b)(3)(B),(C) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),[G](2),(4)-(5),(8),(9)-(10) §115.216(1),(A),(i)	§115.216(1),(A),(i),(2),(3)(A),(i)-(iii)(B)
514-06-006	§115.212(b)(1),(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(A),(3)(B),(C) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),(2),(4)-(5),(8)-(10) §115.216(1),(A),(ii)	§115.216(1),(A),(ii),(2),(3)(A),(B)	§115.212(b),(1),(A),(3)(A)(i)-(ii),(B),-[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(A),(3)(B) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),[G](2),(4)-(5),(8),(9)-(10) §115.216(1),(A),(ii)	§115.216(1),(A),(ii),(2),(3)(A),(i)-(iii)(B)
514-06-007	§115.212(b)(1) §115.212(b)(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(A),(3)(B),(C) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),(2),(4)-(5),(8)-(10) §115.216(1),(A),(iii)	§115.216(1),(A),(iii),(2),(3)(A),(B)	§115.212(b),(1),(A), §115.212(3)(A)(i)-(ii),(B),-[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(A),(3)(B) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),[G](2),(4)-(5),(8),(9)-(10) §115.216(1),(A),(iii)	§115.216(1),(A),(iii),(2),(3)(A),(i)-(iii)(B)
514-06-008	§60.18 §115.212(b)(1),(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(A),(3)(B),(C) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),(2)-(5),(8)-(10) §115.216(1),(A),(iv)	§115.216(1),(A),(iv),(B),(2),(3)(A),(B)	§60.18 §115.212(b),(1),(A),(3)(A)(i)-(ii),(B),-[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(A),(3)(B) §115.214(b)(1)(A),(i)-(iii),(C) §115.215(1),[G](2)-(3),(4)-(5),(8),(9)-(10) §115.216(1),(A),(iv)(B)	§115.216(1),(A),(iv)(B),(2),(3)(A),(i)-(iii)(B)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-06-009	§115.212(b)(1),(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(A),(3)(B),(C) <b>§115.214(b)(1)(A)</b> ,(i)-(iii),(C) §115.215(1),(2)-(5),(8)-(10) <b>§115.216(1),(A)</b> ,(iv)	<b>§115.216(1),(A)</b> ,(iv),(B),(2),(3)(A),(B)	§115.212(b),(1),(A),(3)(A)(i)-(ii),(B),= [G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)( <del>1</del> )(A),(3)(B) <del>(C)</del> <b>§115.214(b)(1)(A)</b> ,(i)-(iii), <del>(C)</del> §115.215(1),[G](2),(4),= <del>(5),(8),(9)</del> -(10) <b>§115.216(1),(A)</b> ,(iv)	<b>§115.216(1),(A)</b> ,(iv), <del>(B)</del> (2),(3)(A),(i)-(iii) <del>(B)</del>
514-06-010	§115.212(b)(1),(3)(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(B),(3)(B),(C) <b>§115.214(b)(1)(A)</b> ,(i)-(iii),(C) §115.215(1),(2),(4)-(5),(8)-(10)	<b>§115.216(2),(3)(A)</b> ,(B)	§115.212(b),(1),(B),(3)(A)(i)-(ii),(B),= [G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)( <del>1</del> )(B),(3)(B) <del>(C)</del> <b>§115.214(b)(1)(A)</b> ,(i)-(iii), <del>(C)</del> §115.215(1),[G](2),(4),= <del>(5),(8),(9)</del> -(10)	<b>§115.216(2),(3)(A)</b> ,(i)-(iii) <del>(B)</del>
514-06-011	§115.212(b)(1),(3),(A)-(C),(E) §115.214(b)(1)(B)	§115.212(b)(1)(C),(3)(B),(C) <b>§115.214(b)(1)(A)</b> ,(i)-(iii),(C) §115.215(1),(2),(4)-(5),(8)-(10)	<b>§115.216(2),(3)(A)</b> ,(B)	§115.212(b)(1),(C),(3)(A)(i)-(ii),(B),= [G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)( <del>1</del> )(C),(3)(B), <del>(C)</del> <b>§115.214(b)(1)(A)</b> ,(i)-(iii), <del>(C)</del> §115.215(1),[G](2),(4),= <del>(5),(8),(9)</del> -(10)	<b>§115.216(2),(3)(A)</b> ,(i)-(iii) <del>(B)</del>
514-06-012	None, new to table	None, new to table	None, new to table	None [§115.217(b)(1)]	None	None
514-06-013	None, new to table	None, new to table	None, new to table	§115.212(b)(2) §115.217(b)(2) §115.214(b)(1)(B),(D),i	<b>§115.214(b)(1)(A)</b> ,(i) §115.215(4)	§115.216(2)
514-06-014	None, new to table	None, new to table	None, new to table	§115.212(b)(2) §115.217(b)(3)(A) §115.214(b)(1)(B),(D),i	<b>§115.214(b)(1)(A)</b> ,(i) §115.215(4)	§115.216(2),(3)(D)
514-06-015	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(A),(2),(3)(A)(i)-(ii),(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) <b>§115.214(b)(1)(A)</b> ,(i)-(iii) §115.215(1),[G](2),(4),(9)-(10) <b>§115.216(1),(A)</b> ,(i)	<b>§115.216(1),(A)</b> ,(i),(2),(3)(A)(i)-(iii)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-06-016	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(A),(2), (3)(A)(i)-(ii),(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2),(4),(9)-(10) §115.216(1),(A),(ii)	§115.216(1),(A),(ii),(2), (3)(A)(i)-(iii)
514-06-017	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(A),(2), (3)(A)(i)-(ii),(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2),(4),(9)-(10) §115.216(1),(A),(iii)	§115.216(1),(A),(iii),(2), (3)(A)(i)-(iii)
514-06-018	None, new to table	None, new to table	None, new to table	§60.18 §115.212(b)(1),(A),(2), (3)(A)(i)-(ii),(B)-(C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2)-(3),(4),(9)-(10) §115.216(1),(B)	§115.216(1),(B), (2),(3)(A)(i)-(iii)
514-06-019	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(A),(2), (3)(A)(i)-(ii),(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2),(4),(9)-(10)	§115.216(1),(A),(iv),(2), (3)(A)(i)-(iii)
514-06-020	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(B),(2), (3)(A)(i)-(ii),(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2),(4),(9)-(10)	§115.216(2),(3)(A)(i)-(iii)
514-06-021	None, new to table	None, new to table	None, new to table	§115.212(b)(1),(C),(2), (3)(A)-(B),[G](C),(E) §115.214(b)(1)(B)-(C)	§115.212(3)(B) §115.214(b)(1)(A),(i)-(iii) §115.215,(1),[G](2),(4),(9)-(10)	§115.216(2),(3)(A)(i)-(iii)
514-06-022	None, new to table	None, new to table	None, new to table	§115.212(b)(2) §115.217(b)(2) §115.214(b)(1)(B),(D),(i)	§115.214(b)(1)(A),(i) §115.215,(4)	§115.216(2)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-06-023	None, new to table	None, new to table	None, new to table	§115.212(b)(2) §115.217(b)(3)(A) §115.214(b)(1)(B)	§115.214(b)(1)(A),(i) §115.215,(4)	§115.216(2),(3)(D)
514-06-024	None, new to table	None, new to table	None, new to table	§115.212(b)(2),(3),(A),(i)-(ii), (B),[G](C),(D) §115.214(b)(1)(B),(C)	§115.212(b)(3)(B) §115.214(b)(1)(A),(i)-(iii)	§115.216,(3)(A),(A)(i),(iii)
511-05-001 60 GG	None [§60.330(b)]	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-002	None [§60.330(a)]	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-003	None [§60.330(b)]	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-004	§60.332(e) §60.333(b)	§60.334(b),(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-005	§60.332(g) §60.333(b)	§60.334(b),(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-006	§60.332(l) §60.333(b)	§60.334(b),(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-007	§60.332(a)(2),(3),(f) §60.333(b)	§60.334(a) §60.334(b),(b)(2),(c)(1)-(3) §60.335(a),(b),(c)(1)-(3),(d),(e)	§60.334(a),(b)(2),(c)(1)-(3)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-008	§60.332(a)(2),(3) §60.333(b)	§60.334(b),(b)(2),(c)(1),(2) §60.335(a),(b),(c)(1),(3),(d)-(e)	§60.334(b)(2),(c)(1),(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-009	None [§60.330(b)]	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-010	§60.332(g) §60.333(b)	§60.334(b),(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-011	§60.332(j) §60.333(b)	§60.334(b),(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-05-012	§60.332(a)(2),(3),(f) §60.333(b)	§60.334(a) <b>§60.334(b)</b> ,(b)(2),(c)(1)-(3) §60.335(a),(b),(c)(1)-(3),(d), (e)	§60.334(a),(b)(2),(c)(1)-(3)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-013	§60.332(a)(2),(3) §60.333(b)	<b>§60.334(b)</b> ,(b)(2),(c)(1)-(2) §60.335(a),(b),(c)(1),(3),(d)-(e)	§60.334(b)(2),(c)(1)-(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-014	§60.332(g) §60.333(b)	<b>§60.334(b)</b> ,(b)(2),(c)(2) §60.335(b),(d),(e)	§60.334(b)(2),(c)(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-015	§60.332(a)(2),(3),(f) §60.333(b)	§60.334(a) <b>§60.334(b)</b> ,(b)(2),(c)(1)-(3) §60.335(a),(b),(c)(1)-(3),(d), (e)	§60.334(a),(b)(2),(c)(1)-(3)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-016	§60.332(a)(2),(3) §60.333(b)	<b>§60.334(b)</b> ,(b)(2),(c)(1)-(2) §60.335(a),(b),(c)(1),(3),(d)-(e)	§60.334(b)(2),(c)(1)-(2)	Permit table replaced	Permit table replaced	Permit table replaced
511-05-017	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-018	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-019	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-020	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-021	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-022	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-023	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-024	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-025	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-026	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-05-027	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-028	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-029	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-030	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-031	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-032	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-033	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-034	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-035	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-036	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-037	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-038	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-039	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-040	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-041	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-042	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-043	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-044	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-045	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-046	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-047	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
517-07-048	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-049	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-05-050	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-051	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-052	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-053	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-054	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-055	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-056	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-057	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-058	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-059	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-060	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-061	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-062	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-063	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-064	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-065	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-066	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-067	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-068	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-069	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-05-070	None	None	None	Permit table replaced	Permit table replaced	Permit table replaced
511-06-003 60 K & Ka	§60.110(c)	None	None	§60.110(c) None [§60.113(d)(1)]	None	None

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-06-004	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-005	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(2)	§60.113(a)-(b)	§60.113(a)
511-06-006	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-007	§60.110(c)	§60.113(a)-(c)	§60.113(a),(c)	§60.110(c),(2)	§60.113(a)-(c)	§60.113(a),(c)
511-06-008	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-009	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(2)	§60.113(a)-(b)	§60.113(a)
511-06-010	§60.112(a)(1)	None	None	§60.112(a)(1)	<del>None</del> Periodic Monitoring	None
511-06-013	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(1)]	None	None
511-06-014	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-015	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(1)	§60.113(a)-(b)	§60.113(a)
511-06-016	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-017	§60.110(c)	§60.113(a)-(c)	§60.113(a),(c)	§60.110(c),(1)	§60.113(a)-(c)	§60.113(a),(c)
511-06-018	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-019	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(1)	§60.113(a)-(b)	§60.113(a)
511-06-020	§60.112(a)(1)	None	None	§60.112(a)(1)	<del>None</del> Periodic Monitoring	None
511-06-021	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(1)]	None	None
511-06-022	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-023	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(2)	§60.113(a)-(b)	§60.113(a)



Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-06-024	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-025	§60.110(c)	§60.113(a)-(c)	§60.113(a),(c)	§60.110(c),(2)	§60.113(a)-(c)	§60.113(a),(c)
511-06-026	§60.110(c)	None	None	<del>§60.110(c)</del> None [§60.113(d)(2)]	None	None
511-06-027	§60.110(c)	§60.113(a)-(b)	§60.113(a)	§60.110(c),(2)	§60.113(a)-(b)	§60.113(a)
511-06-028	§60.112(a)(1)	None	None	§60.112(a)(1)	<del>None</del> Periodic Monitoring	None
511-06-031	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(1)]	None	None
511-06-032	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-034	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-036	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-038	§60.112a(a)(3)	§60.113a(a)(2)	§60.113a(a)(2)	§60.112a(a)(3)	[G]§60.113a(a)(2)	[G]§60.113a(a)(2)
511-06-040	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(1)]	None	None
511-06-041	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-043	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-045	§60.110a(a)	None	None	<del>§60.110a(a)</del> None [§60.115a(d)(2)]	None	None
511-06-047	§60.112a(a)(3)	§60.113a(a)(2)	§60.113a(a)(2)	§60.112a(a)(3)	[G]§60.113a(a)(2)	[G]§60.113a(a)(2)
511-07-002 60 Kb	§60.110b(c)	§60.116b(a),(b)	§60.116b(a),(b)	<del>§60.110b(c)</del> None [§60.110b(b)]	§60.116b(a),(b) None	§60.116b(a),(b) None
511-07-003	§60.110b(a)	§60.116b(a),(b),(e)	§60.116b(a),(b), (e)(2)(ii)	Reserved	Reserved	Reserved

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-07-005	§60.112b(a)(3) §60.18	§60.113b(d) §60.116b(a),(b),(e)	<b>§60.115b</b> ,(d) §60.116b(a),(b), (e)(2)(ii)	<b>§60.115b</b> ,(d) §60.116b(a),(b), (e)(2)(ii)	§60.113b(d) §60.116b(a),(b),(e),(2)(ii) [G]§60.485(b)	<b>§60.115b</b> ,(d)(1)-(3) §60.116b(a),(b), (e)(2)(ii)
511-07-006	§60.112b(a)(3)	§60.113b(c) §60.116b(a),(b),(e)	§60.113b(c)(1) <b>§60.115b</b> ,(c) §60.116b(a),(b), (e)(2)(ii)	§60.113b(c)(1) <b>§60.115b</b> ,(c) §60.116b(a),(b), (e)(2)(ii)	[G]§60.113b(c)(1),(2) §60.116b(a),(b),(e),(2)(ii) [G]§60.485(b)	[G]§60.113b(c)(1) <b>§60.115b</b> ,(c) §60.116b(a),(b), (e)(2)(ii)
511-07-008	§60.110b(b)	§60.116b(a),(b)	§60.116b(a),(b)	<del>§60.110b(b)</del> None [§60.110b(a)]	<del>§60.116b(a),(b)</del> None	<del>§60.116b(a),(b)</del> None
511-07-009	§60.110b(c)	§60.116b(a),(b)	§60.116b(a),(b)	<del>§60.110b(c)</del> None [§60.110b(c)]	<del>§60.116b(a),(b)</del> None	<del>§60.116b(a),(b)</del> None
511-07-010	§60.110b(a)	§60.116b(a),(b),(e)	§60.116b(a),(b), (e)(2)(ii)	Reserved	Reserved	Reserved
511-07-011	§60.110b(a)	§60.116b(a)-(e)	§60.116b(a)-(d), (e)(2)(ii)	§60.110b(a)	§60.116b(a)- (e),(1),(2)(i)-(ii),[G](3)	§60.116b(a)-(d), (e)(2)(ii)
511-07-012	§60.112b(a)(3) §60.18	§60.113b(d) §60.116b(a),(b),(e) §60.485(b)	<b>§60.115b</b> ,(d) §60.116b(a),(b), (e)(2)(ii)	[G]§60.112b(a)(3) §60.18	§60.113b(d) §60.116b(a),(b),(e),(1), (2)(i)-(ii),[G](3) [G]§60.485(b)	<b>§60.115b</b> ,(d)(1)-(3) §60.116b(a),(b), (e)(2)(ii)
511-07-013	§60.112b(a)(3)	§60.113b(c) §60.116b(a),(b),(e) §60.485(b)	§60.113b(c)(1) <b>§60.115b</b> ,(c) §60.116b(a),(b), (e)(2)(ii)	[G]§60.112b(a)(3)	[G]§60.113b(c)(1),(2) §60.116b(a),(b),(e),(1), (2)(i)-(ii),[G](3) [G]§60.485(b)	[G]§60.113b(c)(1) <b>§60.115b</b> ,(c) §60.116b(a),(b), (e)(2)(ii)
511-07-014	§60.110b(c)	§60.116b(a),(b)	§60.116b(a),(b)	<del>§60.110b(c)</del> None [§60.110b(b)]	<del>§60.116b(a),(b)</del> None	<del>§60.116b(a),(b)</del> None
511-07-015	§60.110b(a)	§60.116b(a),(b),(e)	§60.116b(a),(b), (e)(2)(ii)	Reserved	Reserved	Reserved
511-07-016	§60.110b(a)	§60.116b(a)-(e)	§60.116b(a)-(d), (e)(2)(ii)	§60.110b(a)	§60.116b(a)-(e),(1), (2)(i)-(ii),[G](3)	§60.116b(a)- (d),(e)(2)(ii)
511-07-017	§60.112b(a)(3) §60.18	§60.113b(d) §60.116b(a),(b),(e) §60.485(b)	<b>§60.115b</b> ,(d) §60.116b(a),(b), (e)(2)(ii)	[G]§60.112b(a)(3) §60.18	§60.113b(d) §60.116b(a),(b),(e),(1), (2)(i)-(ii),[G](3) [G]§60.485(b)	<b>§60.115b</b> ,(d)(1)-(3) §60.116b(a),(b),(e)(2)(ii) )

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
511-07-018	§60.112b(a)(3)	§60.113b(c) §60.116b(a),(b),(e) §60.485(b)	§60.113b(c)(1) <b>§60.115b(c)</b> §60.116b(a),(b), (e)(2)(ii)	[G]§60.112b(a)(3)	[G]§60.113b(c)(1),(2) §60.116b(a),(b),(e),(1), (2)(i)-(ii),[G](3) [G]§60.485(b)	[G]§60.113b(c)(1) <b>§60.115b(c)</b> §60.116b(a),(b),(e)(2)(ii) )
511-07-019	None [§60.110b]	None	None	None [§60.110b(a)]	None	None
511-09-005 60 LLL	GOP #514(b)(17)	GOP #514(b)(17)	GOP #514(b)(17)	Reserved	Reserved	Reserved
511-12-005 60 A	§60.18(b),(c)(1),(2),(3)(ii), (6),(e)	§60.18(d),(f)(1)-(4)	None	§60.18(b),(c)(1),(2),(3)(ii), <b>(4)(i)</b> ,(6),(e)	§60.18(d),(f)(1)-(4)	None
511-14-004 60 LLL	GOP #514(b)(17)	GOP #514(b)(17)	GOP #514(b)(17)	Reserved	Reserved	Reserved
514-07-001 63 A	None [§60.11(a)]	None	None	None [§60.11(a)]	None	None
514-07-002	§60.11(b)(1)-(6),(7)(i)	§63.11(b)(4)-(5),(7)(i)	None	§60.11(b)(1)-(5),(6)(ii), (7)(i)	§63.11(b)(4),(5),(7)(i)	None
514-07-003	§60.11(b)(1)-(6),(7)(iii)	§63.11(b)(4)-(5),(7)(i)	None	§60.11(b)(1)-(5),(6)(ii), (7)(iii)	§63.11(b)(4),(5),(7)(i)	None
514-07-004	§60.11(b)(1)-(6),(7)(ii)	§63.11(b)(4)-(5),(7)(i)	None	§60.11(b)(1)-(5),(6)(ii), (7)(ii)	§63.11(b)(4),(5),(7)(i)	None
514-07-005	§60.11(b)(1)-(6),(8)	§63.11(b)(4)-(5)	None	§60.11(b)(1)- (5),(6)(ii),(8)	§63.11(b)(4),(5)	None
514-07-006	None, new to table	None, new to table	None, new to table	§63.11(b)(1)-(5), <b>(6)(i)(A)-(B),(7)(i)</b>	§63.11(b)(4)-(5),(7)(i)	None
514-07-007	None, new to table	None, new to table	None, new to table	§63.11(b)(1)-(5),(6)(ii), (7)(iii)	§63.11(b)(4),(5),(7)(i)	None
514-18-001 117 SICE	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§117.203(a)(8)(B)]	None	None
514-18-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.203(a)(6)(D)	None	§117.213(i) §117.219(f),(6)(B)
514-18-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.205(h)(2)	None	§117.213(i) §117.219(f),(6)(B)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-18-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B),(i), (C),(d)(1)(A)(e),(2), (f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f),(2),(3) §117.213(a),(c)(1),(3)(B) , (D),(d),(1)(A),(d)(2), (A),(B),(e),(1)-(3), (g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f)(1),(2), (A),(B),(3),(A),(B), (7)-(9)
514-18-005	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B),(i), (C),(d)(1)(A),(e),(2), (f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f)(2),(3) §117.213(a),(c)(1),(3)(B) , (C),(D),(d),(1)(B),  (d)(2),(A),(B),(e)(1)(B), (ii),(f)(1),(2) (A)(i),(B), (3),(7),(g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f)(1),(2), (A),(B),(3),(A),(B), (7)-(9)
514-18-006	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B),(i), (C),(d)(1)(B),(e),(2), (f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2), (4),(b),(e)(1)-(5) §117.213(a),(g)(1)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(c), (e),(f)(1),(3),(9)
514-18-007	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B), (ii),(C), (D)(1)(A),(e), (2),(f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f),(2),(3) §117.213(a),(c)(1),(3)(B) , (D),(d),(1)(A),(d)(2), (A),(B),(e),(1)-(3), (g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f)(1),(2), (A),(B),(3),(A),(B), (7)-(9)
514-18-008	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B), (ii),(C),(d)(1)(A), (e),(2),(f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f)(2),(3) §117.213(a),(c)(1),(3)(B) , (C),(D),(d),(1)(B),  (d)(2),(A),(B),(e)(1)(B), (ii),(f)(1),(2) (A)(i),(B), (3),(7),(g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f)(1),(2), (A),(B),(3),(A),(B), (7)-(9)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-18-009	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(3),(B), (ii),(C),(d)(1)(B),(e), (2),(f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2), (4),(b),(e)(1)-(5) §117.213(a),(g)(1)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(c), (e),(f),(1),(3),(9)
514-18-010	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(2),(b)(3), (A),(C),(d)(1)(A),(e), (2),(f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f),(2),(3) §117.213(a),(c)(1), (3)(B),(D),(d), (1)(A),(d)(2),(A),(B), (e),(1)-(3),(g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f),(1),(2), (A),(B),(3),(A),(B), (7)-(9)
514-18-011	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(2),(b)(3), (A),(C),(d)(1)(A),(e), (2),(f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a),(1),(2),(4), (b),(c),(f)(2),(3) §117.213(a),(c)(1),(3)(B), (C),(D),(d),(1)(B), (d)(2),(A),(B),(e)(1)(B), (ii),(f),(1),(2) (A)(i),(B), (3),(7),(g)(2)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(2), (c),(d),(e),(f),(1),(2), (A),(B),(3),(A),(B), (7)-(9)
514-18-012	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§117.206(b)(2),(b)(3),(A), (C),(d)(1)(B),(e),(2), (f)(1)(C) §117.208(d),(4)-(7) §117.211(d) §117.213(k)(1)	§117.211(a)(1),(2), (4),(b)(c),(e), §117.213(a),(g)(1)	§117.211(g) §117.216(a),(2)-(5),(c) §117.217(1),(3) §117.219(a),(b)(1),(c), (e),(f),(1),(3),(9)
514-19-001 115 Degr.	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2),(A)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C)-(F) §115.417(1)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(E),(F) §115.417(1)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-19-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A)-(F)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-005	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-006	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-007	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§115.417(4)]	None	None
514-19-008	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-009	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-010	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(D),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-011	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A)-(C),(D),(F) §115.417(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-012	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2),(A)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-013	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(E),(F) §115.417(1)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-014	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(E),(F) §115.417(1)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-015	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A)-(C),(E),(F)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-19-016	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-017	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-018	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§115.417(4)]	None	None
514-19-019	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-020	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-021	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A),(C),(F) §115.417(1),(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-19-022	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§115.412(1),(A)-(C),(F) §115.417(2),(B)	§115.415(1)(A) Periodic Monitoring	§115.416,(1)
514-20-001 63 YYYY	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6090(b)(4)]	None	None
514-20-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6090(b)(3)]	None	None
514-20-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6090(b)(1),(i)	None	§63.6145(d)
514-20-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6095(d)	None	§63.6145(a)-(d)
514-20-005	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6095(d)	None	§63.6145(a)-(d)
514-21-001 63 ZZZZ	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6590(a)]	None	None
514-21-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6590(b)(3)]	None	None
514-21-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6590(b)(3)]	None	None

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-21-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.6590(b)(3)]	None	None
514-21-005	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(a)-Table1a.1.a §63.6600(a)-Table1b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) §63.6615 §63.6620(a) §63.6620(a)-Table3.2 §63.6620(a)-Table3.3 §63.6620(a)-Table4.3.a.i-iv §63.6620(b)-(d),(e)(1),[G](e)(2) §63.6625(a)-Table5.4.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.6 §63.6640(b) §63.6640(a)-Table6.4.a..i-v	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](d),[G](e),(f)
514-21-006	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(a)-Table1a.1.b §63.6600(a)-Table1b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) §63.6615 §63.6620(a) §63.6620(a)-Table3.3,Table4.3.a.i-iv §63.6620(b)-(d) §63.6625(a)-Table5.6.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a),(b) §63.6640(a)-Table6.7.a..i-v	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)
514-21-007	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6590(b)(1)	None	§63.6640(e) §63.6645(d)
514-21-008	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6590(b)(1)	None	§63.6640(e) §63.6645(d)



Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-21-009	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(a)-Table1a.1.a §63.6600(a)-Table1b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.2 §63.6620(a)-Table3.3 §63.6620(a)-Table4.3.a.i-iv §63.6620(b)-(d),(e)(1),[G](e)(2) §63.6625(a)-Table5.4.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.6 §63.6640(a)-Table6.4.a.i-v §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](d),[G](e),(f)
514-21-010	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(a)-Table1a.1.b §63.6600(a)-Table1b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.3,Table4.3.a.i-iv §63.6620(b)-(d) §63.6625(a)-Table5.6.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.7.a.i-v §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-21-012	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(b)-Table2a.1.a §63.6600(a)-Table2b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.1 §63.6620(a)-Table4.1.a.i-ii §63.6620(b)-(d),(e)(1),[G](e)(2) §63.6625(a),(a)(1)-(4) §63.6625(a)-Table5.1.a.i-iii §63.6625(a)-Table5.3.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.1.a.i-v §63.6640(a)-Table6.3.a.i-iii §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)
514-21-013	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(b)-Table2a.1.b §63.6600(a)-Table2b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.3 §63.6620(a)-Table4.3.a.i-iv §63.6620(b)-(d) §63.6625(a)-Table5.6.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.7.a.i-v §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-21-014	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(b)-Table2a.2.a §63.6600(a)-Table2b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.1 §63.6620(a)-Table4.1.a.i-ii §63.6620(b)-(d),(e)(1),[G](e)(2) §63.6625(a),(a)(1)-(4) §63.6625(a)-Table5.1.a.i-iii §63.6625(a)-Table5.3.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.1.a.i-v §63.6640(a)-Table6.3.a.i-iii §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)
514-21-015	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.6595(c) §63.6600(b)-Table2a.2.b §63.6600(a)-Table2b.1.a-b §63.6605(a),(b) §63.6630(a),(b) §63.6640(b)-(d) §63.6665	§63.6610(a),(b),(c),[G](d) ) §63.6615 §63.6620(a) §63.6620(a)-Table3.3 §63.6620(a)-Table4.3.a.i-iv §63.6620(b)-(d) §63.6625(a)-Table5.6.a.i-iii §63.6625(b) §63.6635(a),(b) §63.6640(a) §63.6640(a)-Table6.7.a.i-v §63.6640(b)	§63.6635(a),(c) [G]§63.6655(a),[G](b),(d) §63.6660(a)-(c) §63.6630(c) §63.6640(b),(e) §63.6645(a)-(c),(e),(f),(f)(1),(f)(2) §63.6650(a) §63.6650(a)-Table7.1.a-c §63.6650(a)-Table7.2.a-b §63.6650(a),(b),(b)(1)-(4),[G](c),[G](e),(f)
514-22-001 63 DDDDD	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.7506(c)]	None	None
514-22-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.7506(b)	None	§63.7506(b)

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-22-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§ 63.7500(a)(1)-Table 1.8 § 63.7500(a),(a)(1) § 63.7505(a),(b),[G](d),(e) § 63.7510(c),(e)-(g) § 63.7530(a) § 63.7540(a)(1),(c),(d)	§ 63.7515(a),(e) § 63.7520(a),(b) § 63.7520(b)-Table 5.5.a-d § 63.7520(d)-(f) § 63.7535(a)-(c) § 63.7540(a)	§ 63.7515(g) § 63.7520(a) § 63.7530 (e) § 63.7535(a) § 63.7540(b) § 63.7545(a),(b),(b)(1), (c), (d),(e),(e)(1),  (e)(2),(e)(6),(e)(7),(e)(9) § 63.7550(a) § 63.7550(a)-Table 9.1.a,b,d § 63.7550(a)-Table 9.2.a,b § 63.7550(b),(b)(1)-(5),[G](c),[G](d),(f) § 63.7555(a),(a)(1)-(3),(c), (e),(e)(1)-(2) § 63.7560(a)-(c)
514-22-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§ 63.7500(a)(1)-Table 1.7 § 63.7500(a),(a)(1) § 63.7505(a),(b),[G](d),(e) § 63.7510(c),(e)-(g) § 63.7530(a) § 63.7540(a)(1),(c),(d)	§ 63.7515(a),(e) § 63.7520(a),(b) § 63.7520(b)-Table 5.5.a-d § 63.7520(d)-(f) § 63.7535(a)-(c) § 63.7540(a)	§ 63.7515(g) § 63.7520(a) § 63.7530 (e) § 63.7535(a) § 63.7540(b) § 63.7545(a),(b),(b)(1), (c), (d),(e),(e)(1),  (e)(2),(e)(6),(e)(7),(e)(9) § 63.7550(a) § 63.7550(a)-Table 9.1.a,b,d § 63.7550(a)-Table 9.2.a,b § 63.7550(b),(b)(1)-(5),[G](c),[G](d),(f) § 63.7555(a),(a)(1)-(3),(c), (e),(e)(1)-(2) § 63.7560(a)-(c)
514-22-001 63 DDDDD	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	None [§63.7506(c)]	None	None

Index No.	Previous Requirements (GOP Effective Oct. 19, 2001)			New Requirements (GOP Effective Oct. 19, 2006)		
	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting	Regulatory Requirements [Exemption]	Monitoring and Testing	Recordkeeping and Reporting
514-22-002	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§63.7506(b)	None	§63.7506(b)
514-22-003	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§ 63.7500(a)(1)-Table 1.8 § 63.7500(a),(a)(1) § 63.7505(a),(b),[G](d),(e) § 63.7510(c),(e)-(g) § 63.7530(a) § 63.7540(a)(1),(c),(d)	§ 63.7515(a),(e) § 63.7520(a),(b) § 63.7520(b)-Table 5.5.a-d § 63.7520(d)-(f) § 63.7535(a)-(c) § 63.7540(a)	§ 63.7515(g) § 63.7520(a) § 63.7530 (e) § 63.7535(a) § 63.7540(b) § 63.7545(a),(b),(b)(1), (c), (d),(e),(e)(1),  (e)(2),(e)(6),(e)(7),(e)(9) § 63.7550(a) § 63.7550(a)-Table 9.1.a,b,d § 63.7550(a)-Table 9.2.a,b § 63.7550(b),(b)(1)- (5),[G](c),[G](d),(f) § 63.7555(a),(a)(1)- (3),(c), (e),(e)(1)-(2) § 63.7560(a)-(c)
514-22-004	None, Table New to Permit	None, Table New to Permit	None, Table New to Permit	§ 63.7500(a)(1)-Table 1.7 § 63.7500(a),(a)(1) § 63.7505(a),(b),[G](d),(e) § 63.7510(c),(e)-(g) § 63.7530(a) § 63.7540(a)(1),(c),(d)	§ 63.7515(a),(e) § 63.7520(a),(b) § 63.7520(b)-Table 5.5.a-d § 63.7520(d)-(f) § 63.7535(a)-(c) § 63.7540(a)	§ 63.7515(g) § 63.7520(a) § 63.7530 (e) § 63.7535(a) § 63.7540(b) § 63.7545(a),(b),(b)(1), (c), (d),(e),(e)(1),  (e)(2),(e)(6),(e)(7),(e)(9) § 63.7550(a) § 63.7550(a)-Table 9.1.a,b,d § 63.7550(a)-Table 9.2.a,b § 63.7550(b),(b)(1)- (5),[G](c),[G](d),(f) § 63.7555(a),(a)(1)- (3),(c), (e),(e)(1)-(2) § 63.7560(a)-(c)



