New Mexico Greenhouse Gas Mandatory Emissions Reporting
Emissions Quantification Procedures
For 20.2.73 NMAC

Emissions year: 2011

January 19, 2011

Part 1: General Reporting Instructions

These procedures specify or reference acceptable Greenhouse Gas ("GHG") emission calculation methods and emission factors that Title V source owners must use when preparing GHG emissions data reports for submission to the New Mexico Environment Department (NMED), as specified in 20.2.73 NMAC. These procedures do not apply to minor (non-Title V) oil and gas sources as NMED is not requiring GHG emissions reports from them under Part 73 for emissions year 2011. Emissions year 2011 GHG reports are due April 1st, 2012.

There is some overlap between these requirements and those of 20.2.300 NMAC – Reporting of Greenhouse Gas Emissions, but double reporting of the same emissions is not required. Any emissions reported under 20.2.300 NMAC are not required to be reported under 20.2.73 NMAC.

20.2.300 NMAC applies to sources emitting greater than 10,000 metric tons of GHG. Depending on your facility type and 2011 GHG emissions, you may have to report some GHG emissions pursuant to 20.2.73 and other GHG emissions pursuant to 20.2.300 NMAC. Title V oil and gas facilities having non-combustion vented or fugitive GHG emissions are required to report those emissions pursuant to 20.2.73 NMAC, except for CO_2 vented from acid gas removal units (if these emissions are reported under 20.2.300 NMAC). Please see the following link to 20.2.300 NMAC for more information regarding that rule:

http://www.nmenv.state.nm.us/cc/NMEDAQBNewGHGReportingVerificationRules.htm

Using New Mexico's 2009 Title V GHG emissions inventory as a guide, approximately 120 of the 145 reporters had emissions greater than 10,000 metric tons. Therefore, it is likely that the majority of reporters will be subject to 20.2.300 NMAC for all or part of their emissions. If 20.2.300 NMAC is no longer in effect at the end of 2011, all Title V sources will be required to report GHG emissions pursuant to 20.2.73 NMAC only.

Emissions reports are required from the following sources and pollutants as outlined in Table 1.1:

Table 1.1: NMED GHG Reporting Options By Source Type

Source Type	Pollutants	Reporting Options
Title V Oil and Gas (Stationary Combustion)	CO_2 & CH_4	• EPA GHG reports or methods, for combustion sources
Title V Oil and Gas Vented Emissions	CO_2 & CH_4	• NMED 2011 procedures for Title V non-combustion sources at facilities not subject to 40 CFR Part 98 Subpart W, or; • Subpart W for sources that are subject to those requirements

Source Type	Pollutants	Reporting Options
Title V (non-oil and gas)	CO_2 & CH_4	• EPA GHG reports; • EPA methods applied to facilities not subject to EPA reporting; • NMED 2011 procedures; or, • Best Available Data only for sources lacking quantification methods under EPA methods or NMED procedures

NMED will accept GHG emission reports submitted to EPA pursuant to 40 CFR Part 98 as a method of complying with 20.2.73 GHG emissions reporting requirements for those emissions sources covered by the EPA rule. Use the following link for additional information regarding the EPA Reporting rule:

http://www.epa.gov/climatechange/emissions/ghgrulemaking.html

Title V sources not subject to EPA GHG reporting shall use NMED's web-based Air Emissions Inventory Reporting (AEIR) tool to report greenhouse gas emissions, as well as criteria and hazardous air pollutants. Here is a link to the AEIR tool:

https://eidea.nmenv.state.nm.us/sep/

Title V non-oil and gas facilities not subject to EPA GHG reporting and for which there are not EPA source specific emissions quantification methods may use industry specific methods (i.e., Best Available Data) to calculate process vented and non routine emissions, including vented and fugitive carbon dioxide and methane emissions.

Each GHG report shall also include GHG emissions occurring during regular operation, maintenance, start-ups, shutdowns, upsets and malfunctions. GHG emissions data from combustion, vented and fugitive units can be aggregated at the facility level. For example, all combustion sources can be reported in aggregate at the facility level. Vented or fugitive GHG emission sources may also be aggregated by category type at the facility level.

If using NMED's AEIR tool to report GHG emissions, please include the following data on an Excel spreadsheet as an electronic attachment with your emissions inventory submittal:

- Facility GHG emissions total(s) as follows:
    1. GHG emissions in carbon dioxide equivalent (CO_2e);
    2. CO_2e for combustion sources;
    3. CO_2 vented emissions (i.e., process and fugitive emissions); and,
    4. Methane vented emissions (i.e., process and fugitive emissions);
- Detailed GHG emission calculations and calculation methodology) used for each subject item type (e.g., combustion, vented and fugitive); and,
- Vented and fugitive methane and CO_2 emissions by equipment type

Part 2: Requirements for the Mandatory Reporting of Greenhouse Gas Emissions from Specific Types of Facilities

95110. Data Requirements and Calculation Methods for Cement Plants

(1) 40 CFR Part 98 Subpart H – Cement Production

95111. Data Requirements and Calculation Methods for Electricity Generating or Cogeneration Facilities

(1) 40 CFR Part 98 Subpart D - Electricity Generation

95112. Data Requirements and Calculation Methods for Petroleum Refineries

(1) 40 CFR Part 98 Subpart Y – Petroleum Refineries

95113. Data Requirements and Calculation Methods for Hydrogen Plants

(1) 40 CFR Part 98 Subpart P - Hydrogen Production

95114. Data Requirements and Calculation Methods for General Stationary Combustion Facilities

(1) 40 CFR Part 98 Subpart C – General Stationary Fuel Combustion Sources

95115. Data Requirements and Calculation methods for Landfill facilities

(1) 40 CFR Part 98 Subpart HH – Municipal Solid Waste Landfills;
(2) Califorina Climate Action Registry (CCAR) Local Government Protocol; or
(3) Current MSW Industry Position and State of the Practice on LFG Destruction Efficiency in Flares, Turbines and Engines. Presented to: Solid Waste Industry for Climate Solutions (SWICS), by SCS Engineers, July 2007.

95116. Data Requirements and Calculation Methods for Title V Oil and Gas Sources Not Subject to 40 CFR Part 98 Subpart W

1. Facilities meeting one or more of the Subpart W industry segment definitions (but not reporting because emissions are <25,000 metric tons CO_2e):
   i. Option 1: Follow Subpart W requirements (source types covered and quantification methods) for the appropriate industry segment; best available data may be used for part or all of 2011.
   ii. Option 2: Use any method in the API Compendium for the vented and fugitive source types covered for your industry segment in Subpart W (listed in 40 CFR 98.232).

2. Other Title V oil and gas facilities exempt from Subpart W (e.g., booster stations, small non-fractionating gas plants):
   i. Option 1: Follow Subpart W requirements for all vented and fugitive source types listed for the onshore production and natural gas processing industry segments, except well-related sources*; best available data may be used for part or all of 2011.
   ii. Option 2: Use any method in the API Compendium for the same source types as in Option 1.

   *Onshore production and gas processing segment vented and fugitive source types, excluding well-related:

   - Natural gas pneumatic device venting
   - Natural gas driven pneumatic pump venting
   - Acid gas removal vent
   - Dehydrator vent
   - Blowdown vent stacks
   - Onshore production storage tanks
   - Flare stacks
   - Centrifugal compressor venting
   - Reciprocating compressor rod packing venting
   - Other emissions from equipment leaks
   - Population count and emissions factor
   - Enhanced oil recovery hydrocarbon liquids dissolved CO_2
   - Enhanced oil recovery injection pump blowdown

   API's Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Natural Gas Industry is available at this link: http://ghg.api.org/

95117. Data Requirements and Calculation Methods for Miscellaneous Sources

Greenhouse Gas Emissions Data Report. An operator subject to Greenhouse Gas Emissions reporting and not subject to the requirements specified by 95110-95116 shall include the following information in the greenhouse gas emissions data report for each report year from facility sources as specified:

(1) **Stationary Combustion – CO_2 and Methane Emissions by Fuel Type**
Combustion GHG emissions using the method stated in 95114

(2) **Process Vented and Non-Routine CO_2 and Methane Emissions (>1 TPY) Including Fugitives**
The operator shall calculate emissions from each applicable facility source using an appropriate and relevant method for CO_2 and Methane.