New Mexico Greenhouse Gas Emissions Reporting and Quantification Procedures

20.2.73 NMAC

Emissions year: 2015 - FINAL

May 29, 2015

Part 1: General Reporting Instructions

These procedures specify or reference acceptable Greenhouse Gas ("GHG") emission calculation methods that <u>Title V source owners</u> must use when preparing GHG emissions data reports for submission to the New Mexico Environment Department (NMED), as specified in 20.2.73 NMAC.

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 & N_2O	• EPA GHG reports; or • EPA calculation methods, for combustion sources not subject to EPA reporting.
Title V Oil and Gas Vented and Equipment Leak (i.e. fugitive) Emissions	CO_2 & CH_4	• 40 CFR Part 98 Subpart W GHG emission reports for sources that are subject to those requirements; or • NMED 2015 procedures for Title V non-combustion sources at facilities not subject to 40 CFR Part 98 Subpart W.
Title V (non-oil and gas)	CO_2 & CH_4	• EPA GHG reports; • EPA methods applied to facilities not subject to EPA reporting; • NMED 2015 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 NMAC GHG emissions reporting requirements for those emission 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. The AEIR tool includes a link to EPA's GHG emissions oil and gas calculation spreadsheets to facilitate reporting of GHG emission sources (e.g. natural gas pneumatic devices) currently not required to obtain a permit or permit modification. Specifically, reporters will be able to add <u>unpermitted equipment</u> in AEIR for emissions reporting purposes. Please be sure to use this functionality when reporting emissions from unpermitted oil and gas GHG emission sources. Here is a link to the AEIR tool:

https://sep.net.env.nm.gov/sep/login-form

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 include GHG emissions occurring during regular operation, maintenance, start-ups, shutdowns, upsets and malfunctions. GHG emissions data from vented and fugitive units can be aggregated by equipment type (e.g. pneumatic devices) for a facility.   When using NMED's AEIR tool to report GHG emissions, please include the following data in an Excel workbook or spreadsheet as an electronic attachment to your AEIR 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 calculation and calculation methodology used for each subject item type (e.g., combustion, vented and fugitive). We recommend use of EPA's GHG Emission Calculation spreadsheet(s); and,
- Vented and fugitive methane and CO_2 emissions by equipment type.

Note: The use of PDF's are strongly discouraged as they're difficult to review. If you choose to use a PDF, please be sure to also include your calculations on an Excel workbook too.

The following is a link to EPA's calculation spreadsheets:

http://www.ccdsupport.com/confluence/display/help/Optional+Calculation+Spreadsheet+Instructions

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

   A. Data Requirements and Calculation Methods for Cement Plants.

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

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

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

   C. Data Requirements and Calculation Methods for Petroleum Refineries.

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

D. Data Requirements and Calculation Methods for Hydrogen Plants.
   (1) 40 CFR Part 98 Subpart P - <u>Hydrogen Production</u>

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

   (1) 40 CFR Part 98 Subpart C – <u>General Stationary Fuel Combustion Sources</u>

F. Data Requirements and Calculation Methods for Landfill Facilities.

   (1) 40 CFR Part 98 Subpart HH – <u>Municipal Solid Waste Landfills</u>;

Note: CO_2 vented landfill emissions are <u>not</u> required.

G. 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 to EPA because emissions are <25,000 metric tons CO_2e):

   i. Report GHG emissions (excluding well related emissions) from the sources covered by Subpart W for the respective industry segment using Subpart W calculation methods. Please be sure to add unpermitted subject item equipment type(s) to AEIR when reporting GHG emissions from those sources.

   Note(s): Reporters have the option to use an alternative method for calculating Blow Down Vent Stack emissions, and may use Subpart W population count calculation method in lieu of the leak survey method when calculating GHG emissions from equipment leaks. Reporters may also choose to apply Subpart W production emission calculation methods to non-production sources.

   (2) Other Title V oil and gas facilities exempt from Subpart W (e.g., booster stations, small non-fractionating gas plants):

   ii. Select and use Subpart W calculation method(s) for all vented and fugitive GHG emitting source types (see list below) at the facility, except well related emissions, as reporting is not required for those sources. Please be sure to add unpermitted equipment type(s) to AEIR when reporting GHG emissions from those sources.
   - Natural gas pneumatic device venting
   - Natural gas driven pneumatic pump venting

- Acid gas removal vent
- Dehydrator vent
- Blowdown vent stacks
- Centrifugal compressor venting
- Reciprocating compressor rod packing venting
- Other emissions from equipment leaks
- Population count and emissions factor

Note(s): Reporters have the option to use an alternative method for calculating Blow Down Vent Stack emissions, and may use Subpart W population count calculation method in lieu of the leak survey method when calculating GHG emissions from equipment leaks. Reporters may also choose to apply Subpart W production emission calculation methods to non-production sources.

(3) Calculate <u>flare</u> combustion emissions using Subpart W's flare stack calculation method. All other combustion emissions shall be calculated as stated in Section E.

H. Data Requirements and Calculation Methods for Miscellaneous Sources

Greenhouse Gas Emissions Data Report. An operator subject to Greenhouse Gas Emissions reporting and <u>not</u> subject to any of the requirements specified by above 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, Methane& N_2O Emissions by Fuel Type**
   40 CFR Part 98 Subpart C – <u>General Stationary Fuel Combustion Sources</u>;

(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 calculation method for CO_2 and Methane.