Oil and Gas Alert: EPA Proposes Revisions to GHG Reporting Rule for Oil and Gas Industry

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On March 10, 2014, U.S. EPA published proposed revisions and confidentiality determinations for the petroleum and natural gas source category of the Greenhouse Gas (GHG) Reporting Rule, 40 CFR Part 98, Subpart W. The proposed revisions to Subpart W include amendments of general applicability, revised calculation methods and reporting requirements for specified emission sources within the source category, and confidentiality determinations for the new and substantially revised data elements associated with the proposed amendments to the rule. While the proposed amendments are intended to provide clarity of reporting requirements and improve data collection, the revisions may result in increased reporting burdens for the industry.

EPA is proposing four amendments of general applicability to Subpart W. First, EPA is proposing to revise the units of emissions reported in 40 CFR 98.236 to require reporting in metric tons, rather than the carbon dioxide equivalent (CO_2e) based on global warming potentials, of methane, carbon dioxide and nitrous oxide. In conjunction with this revision, EPA would amend each calculation method that requires the calculation of emissions in CO_2e.

Second, EPA is proposing to revise the source category definition of the onshore production source category under 40 CFR 98.230(a)(2) to mean "all equipment on a single well-pad or associated with a single well-pad. . . used in the production, extraction, recovery, lifting, stabilization, separation or treating of petroleum and/or natural gas (including condensate)." EPA specified in the definition a nonexclusive list of equipment[1], which EPA claims is not intended to add or remove sources currently covered from the reporting requirements, but to provide "a more accurate description of the industry segment" (79 FR 13397).

EPA is also proposing to revise the definition of "sub-basin category" in 40 CFR 98.238 to distinguish between high permeability gas and tight gas reservoirs, which will ultimately determine whether a particular well in a sub-basin category is a gas well or an oil well.

Finally, EPA is proposing to eliminate all provisions in 40 CFR 98.234(f) allowing the use of best available monitoring methods (BAMM) because the agency "expect[s] facilities would be able to comply with the monitoring and QA/QC methods required under subpart W after this proposed rule is finalized and effective" (79 FR 13404). EPA's expectation is based on the assumption that compliance with the monitoring requirements under subpart W will be technically feasible by January 1, 2015 when the proposed revisions would be effective.

As an initial matter, with respect to the proposed changes to calculation methods and reporting requirements under 40 CFR 98.236, EPA is proposing to reorganize the entire reporting section by source type, and for each industry segment, list which source types must be reported. 79 FR 13397. This will specify the data elements that must be reported by each facility. EPA has proposed the following source-specific changes to the calculation methods and/or reporting requirements (79 FR 13398-13404):

- **Natural Gas Pneumatic Device Venting** – Allow either the use of site specific composition data for natural gas transmission compression and underground natural gas storage facilities or the use of a default gas composition to calculate emissions under 40 CFR 98.233(u)(2).
- **Acid Gas Removal Vents** – Revise certain parameters in 40 CFR 98.233(d) to clarify that the volumetric fraction used to calculate emission should be the annual average.
- **Dehydrators** – Allow for the adjustment of emissions from desiccant dehydrators under 40 CFR 98.233 (e) to account for emissions vented to a vapor recovery system or flare.
- **Well Venting for Liquids Unloading** – Revise the calculation method under 40 CFR 98.233(f)(1) such that reporters can use an annualized value to determine the amount of time of venting. If an annualized value is used, the monitoring period must begin before February 1 and must not end before December 1 of the reporting year, and must include at least 300 consecutive days of monitoring. EPA is also proposing to change the calculation method and reporting of emissions from wells that do and do not have plunger lifts.
- **Gas Well Completions and Workovers** – Amend 40 CFR 98.238 to add definitions for "reduced emissions completion" and "reduced emissions workover." EPA also proposes to revise the definition of "well completions" in 40 CFR 98.6 to delete the term "refracture" because it is a considered a well workover and, not a completion, for purposes of 40 CFR Part 98. The reporting requirements will be revised such that, separate counts and separate reporting of emissions for different well type combinations in each sub-basin category. EPA proposes to revise the calculation method to require the measurement of flow rate only when sufficient gas is present to enable flow rate measurement.
- **Blowdown Vents** – Require the use of site specific data on gas compositions and allow for the use of a compressibility term under 40 CFR 98.233(i).
- **Onshore Production Storage Tanks** – Revise the reporting requirement under 40 CFR 98.236(c)(8) such that emissions only have to be quantified when an anomaly in the facility operation is detected.
- **Associated Gas Venting and Flaring** – Add the term "Associated gas venting or flaring" to 40 CFR 98.233 (m)(3) to account for situations where part of the associated gas from a well goes to the sales line and another part is flared or vented.
- **Flare Stack Emissions** – Amend the calculation method under 40 CFR98.233(n) to account for gas that is sent to an unlit flare.

- **Centrifugal and Reciprocating Compressors** – Revise monitoring and calculation methods under 40 CFR 98.233(o) and (n) to allow for the reporting of annual volumetric emissions for each manifolded group of compressors combined for all operating conditions. If this method is used, three measurements – as opposed to one – must be taken each year. In conjunction with this revision, EPA is proposing to add definitions in 40 CFR 98.238 for "compressor," "compressor mode," "manifold compressor source" and "manifolded group of compressor sources."
- **Natural Gas Distribution**: **Leak Detection Equipment and Emissions from Components** – Change the facility meter/regulator run emission factor in 40 CFR 98.233(q) and clarify that the emission factor is calculated separately for carbon dioxide and methane, and is calculated on an operational hour basis instead of a component basis.
- **Onshore Petroleum and Natural Gas Distribution Combustion Emissions** – Revise reporting requirement to clarify that emissions and volume of fuel combusted must be reported for all compressor driven internal combustion units in 40 CFR 98.236.

EPA also proposed several confidentiality determinations for the new and substantially revised data elements contained in the proposed amendments to the rule. Specifically, EPA proposed 234 new or revised data elements to the appropriate direct emitter data categories created in the 2011 CBI Rule. For the 101 data elements that could not be categorically assigned, EPA proposed confidentiality determinations on a case-by-case basis (See Table 2, 79 FR 13407-13417).

If finalized, the amendments would become effective on January 1, 2015. EPA's proposed revisions to Subpart W are intended to provide clarity and reduce reporting burdens. However, some of the revisions are based on assumptions that may not be accurate or technically feasible. To prevent potentially overly burdensome GHG reporting requirements, the oil and gas industry should carefully review these revisions and, where necessary, provide EPA with additional information to properly address these issues.

Comments must be submitted to U.S. EPA on or before April 24, 2014.

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[1] Compressors, generators, dehydrators, storage vessels, engines, boilers, heaters, flares, separation and processing equipment, and portable non-self propelled equipment which includes well drilling and completion equipment, workover equipment, maintenance and repair equipment, and leased, rented, or contracted equipment.