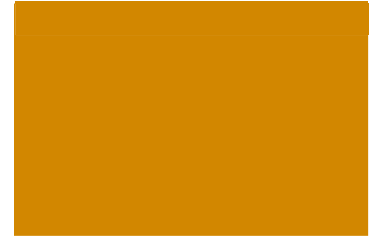


ERM Client Alert: EPA Proposes to Require Petroleum and Natural Gas Systems to Report GHG Emissions

March 22, 2010



On March 22, 2010, the U.S. Environmental Protection Agency amended the Greenhouse Gas Mandatory Reporting Rule by proposing new and extensive reporting requirements for the Petroleum and Natural Gas System source category (40 CFR 98, Subpart W).

The repropose Subpart W has far-reaching implications for upstream oil and gas production, gas processing, and gas transmission, storage and distribution operations.

The US Environmental Protection Agency (EPA) delayed promulgation of the Greenhouse Gas (GHG) Reporting Rule requirements (40 CFR 98) for Oil and Natural Gas Systems when they finalized the Reporting Rule last October. At that time, the EPA announced that these requirements would be addressed in subsequent actions. On March 22, 2010, EPA released the repropose provisions for Oil and Natural Gas Systems (Subpart W). EPA expects to promulgate the final rule in about 60 days. Affected facilities will need to have a monitoring program in place and start collecting required data by no later than **January 1, 2011**.

Who is affected?

EPA believes Subpart W will apply to 3,000 sites in the US. The Subpart W reporting requirements apply to oil and gas facilities, with combined emissions (combustion, flares, vents, and fugitives) equal to or **greater than 25,000 metric tonnes CO₂ equivalent (CO₂e) per year**.ⁱ The affected facilities include offshore and onshore oil and gas production; gas processing, transmission, storage, and distribution; and LNG operations.

One of the most difficult issues EPA had to address in proposing the new requirements was the definition of "facility" for onshore petroleum and natural gas production operations. For this reason, the onshore operations were omitted from the original draft. However, in the most recent proposal, EPA has defined an onshore production facility in a manner that includes all petroleum or natural gas equipment associated with production or enhanced oil recovery (EOR) wellsⁱⁱ under common ownership or

ⁱ For reference, 25,000 metric tonnes of CO₂e equates to approximately 50 MMBtu/hr of natural gas combusted, or roughly 70 MMscf/yr (or 8 Mscf/hr) of uncombusted natural gas.

ⁱⁱ Production equipment includes wells, compressors, generators,

common control by an onshore petroleum and natural gas production owner or operator located in a single hydrocarbon basin as defined by the American Association of Petroleum Geologists (AAPG). Note that even if there are multiple permits held by a company in a given basin, they would be considered one facility for MRR reporting. This definition covers nearly 70% of onshore emissions according to EPA, and effectively captures production sources within facility boundaries that are more likely to exceed the threshold for reporting.

Similarly, the natural gas processing facility boundary includes field gathering and/or boosting compressor stations that feed the gas processing plant, even though they may not be on contiguous property. Only gathering/booster compressor stations that do not feed a gas processing plant (i.e., feed gas into transmission or distribution systems) are considered stand-alone facilities.

Another significant change is that EPA has included the natural gas distribution sector, meaning that local distribution companies (LDCs) would potentially be subject to both Subparts W (distribution pipelines and metering stations) and NN (natural gas product).

What must be reported and how?

EPA is requiring the use of direct measurement of emissions from several source categories and the use of engineering estimates, emissions modeling software, leak quantification, and publicly available emission factors for most other vented and fugitive sources. The most contentious element of the initial proposed Subpart W was the direct

storage, piping, and portable equipment including contracted equipment used in the production, extraction, recovery, lifting, stabilization, separation, or treating of crude, natural gas, and condensate.

measurement requirements for fugitives. While EPA has moved away from requiring direct measurement of leaks, the Agency still has alternate methods that require component counts for individual fugitive components (e.g., valves, flanges, pump seals), and for some industry sectors, annual leak screening to report the number of leaking components by component type.

EPA has proposed that portable combustion equipment in place for over 30 days also be included in the threshold determination and reporting requirements for Subpart W. This would potentially capture sources such as skid-mounted compressors, dehydrators, generators, heaters, and drilling rigs, even if the equipment is contracted. For Subpart W facilities, this effectively eliminates the portable source exemption provided in Subpart C.

What differs from common practice?

While some methods are consistent with common industry practice for reporting GHG emissions, other proposed requirements would be more challenging. Examples of requirements that go beyond common practice include:

- Annual leak detection screening for gas processing, transmission, storage, LNG, and distribution facilities;
- Fugitive component counts for onshore production operations subject to Subpart W;
- Using manufacturer's vent rate data for high-bleed pneumatic devices and gas-operated pumps;
- Measurement of compressor seal gas and transmission storage tank vents;
- Inclusion of non-routine vented sources related to well completions, well workovers, and well testing, as well as equipment blowdowns for maintenance;
- Using software models for quantifying emissions from E&P crude storage tanks and glycol dehydrators.

What should you be doing to prepare?

Based on past experience, ERM expects EPA to make very few changes to the proposed rule. Facilities will need to commence monitoring **by January 1, 2011**, just a short time from now.

As a starting point and based on our past experience with the GHG Reporting Rule, ERM recommends that facilities perform a gap assessment against the rule provisions to ensure the ability to meet the monitoring requirements by January 1, 2011. At a minimum, facilities need to identify sources, align methods, develop data capture processes, and review adequacy of data management systems.

ERM is already helping many companies and sites address their GHG Reporting Rule requirements, having developed well over 100 individual facility gap assessments and monitoring plans across many oil and gas companies. In addition, we are working with many of these companies to implement or adapt environmental management information solutions to ensure compliant reporting and reduce long-term resource requirements for GHG reporting. With a quick window in which to prepare for Subpart W, we believe the time to act is now to ensure the development of a cost-effective GHG management and reporting program.

Please contact an ERM consultant for assistance in preparing your comments, determining applicability, collecting information and/or adapting systems for compliance with Subpart W.

Key Climate Change Contacts

Lisa Campbell, NA
+1 919 233 4501
lisa.campbell@erm.com

Ken Weiss, NA
+1 610 524 3897
ken.weiss@erm.com

Kevin Madry, Western US
+1 661 326 6770
kevin.madry@erm.com

Toby Hanna, Northern US
+1 609 403 7518
toby.hanna@erm.com

Sushil Nadkarni, Southern US
+1 281 600 1157
sushil.nadkarni@erm.com