



JONES DAY
COMMENTARY

EPA PROPOSES TO ADD OIL AND NATURAL GAS, CARBON SEQUESTRATION, AND FLUORINATED GAS-EMITTING FACILITIES TO GREENHOUSE GAS REPORTING SYSTEM

On March 23, 2010, the U.S. Environmental Protection Agency (“EPA”) announced a set of proposed rules¹ that would expand the scope of the nation’s new greenhouse gas (“GHG”) reporting system, codified at 40 C.F.R. part 98. EPA finalized the first mandatory GHG reporting rule² on October 9, 2009, for 31 source categories including direct GHG-emitting facilities, fossil fuel and industrial gas suppliers, and manufacturers of heavy-duty and off-road motor vehicles.³ Now, EPA is proposing to add new reporting requirements for oil and natural gas systems (Subpart W), carbon dioxide (CO₂) injection and geo-

logic sequestration facilities (Subpart RR), and facilities that produce or use fluorinated gases (Subparts I, L, DD, OOa, and SS). Owners and operators of these facilities will need to begin collecting data on their GHG emissions on January 1, 2011, if the proposal is finalized. The first reports would be due on March 31, 2012, for the 2011 reporting year.

QUESTIONS RAISED IN EARLIER PROPOSAL

EPA’s original proposal⁴ for a GHG reporting system, in April 2009, included requirements for some of the same facilities that are the subject of EPA’s latest proposal. EPA decided to remove the requirements for these source categories from the original GHG reporting rule in October 2009 because the agency received a large number of public comments on the

1 Available at <http://www.epa.gov/climatechange/emissions/proposedrule.html>.

2 74 Fed. Reg. 56260, available at <http://frwebgate3.access.gpo.gov/cgi-bin/PDFgate.cgi?WAISdocID=14382525606+0+2+0&WAIAction=retrieve>.

3 See *Jones Day Commentary*, “U.S. EPA Announces Final Rules for Mandatory Greenhouse Gas Reporting,” October 2009, available at <http://www.jonesday.com/us-epa-announces-final-rules-for-mandatory-greenhouse-gas-reporting-10-12-2009/>.

4 74 Fed. Reg. 16448 (April 10, 2009), available at http://www.epa.gov/climatechange/emissions/archived/downloads/Preamble_E9-5711.pdf.

logistics and technical feasibility of compliance. For example, entities in the oil and natural gas sector asked for clarification on how EPA would define the scope of a “facility” when requiring facility-level reporting of fugitive emissions, given that oil and natural gas production and transmission equipment is typically spread across long distances. Entities in this sector also explained that their fugitive and vented emissions come from a large number of diffuse sources and would be difficult to measure directly. Comments submitted for the CO₂-injection source category debated whether CO₂-enhanced oil and gas recovery and certain other uses of CO₂ injection should be subject to mandatory reporting, given that they are potentially non-emissive or “closed” systems. With respect to fluorinated GHGs, entities using electric transmission and distribution equipment raised questions about which parts of an electric power system would be subject to the proposal.

Rather than delaying the issuance of the original rule while it considered public comments, EPA decided to address oil and natural gas, CO₂ injection, and fluorinated GHGs in a later proposed rulemaking. EPA issued that proposal on March 23, 2010, setting forth the following requirements for each of the “postponed” source categories.

OIL AND NATURAL GAS SYSTEMS (SUBPART W)

Coverage and What To Report. EPA’s new proposal for Subpart W requires reporting of fugitive and vented emissions from facilities engaging in oil and natural gas production (both onshore and offshore), onshore natural gas processing, onshore natural gas transmission compression, underground natural gas storage, liquefied natural gas storage and import/export, and natural gas distribution. Facilities in these industry segments would need to report under Subpart W only if their fugitive or vented GHG emissions meet or exceed 25,000 metric tons of CO₂e per year. EPA is soliciting comments, however, on the appropriate thresholds for all segments of the sector.

Defining “Facility.” Reporting under Subpart W would occur at the “facility” level. Under the October 2009 final rule, “facility” means any GHG-emitting physical property, plant,

building, structure, source, or stationary equipment that is located on one or more contiguous or adjacent properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and under common ownership or control. EPA borrowed this definition from other Clean Air Act programs. In the latest proposal, however, EPA offers the following definitions for reporting fugitive emissions in the oil and natural gas sector:

- **Onshore Oil and Natural Gas Production:** “Facility” includes all oil and natural gas production equipment and wells under common ownership or control and located in a single hydrocarbon basin with one Geologic Province Code, as defined by the American Association of Petroleum Geologists. EPA is seeking comment on the alternative of owners and operators reporting at the field level upon triggering a lower threshold (10,000 rather than 25,000 metric tons of CO₂e per year).
- **Offshore Oil and Natural Gas Production:** “Facility” includes any floating platform structure that houses equipment to extract hydrocarbons from an ocean or lake floor for transport to storage or transport vessels. Any secondary platform structures or storage tanks are also part of the “facility,” if they are connected by a pipeline to a primary platform.
- **Natural Gas Distribution:** “Facility” means all distribution pipelines, metering stations, and regulating stations that are operated by a single Local Distribution Company regulated as a separate operating company by a public utility commission or operated as an independent municipally owned distribution system.

The new definitions in EPA’s proposal are intended to reflect commonly understood boundaries for oil and gas production and transmission.

Emissions Calculation Methodologies. EPA’s new proposal for Subpart W adopts a different approach to calculating fugitive emissions of GHGs than the original proposal. Rather than relying so heavily on direct measurement, the new proposal requires direct measurement for only the most significant sources where other alternatives are not available. Most vented and fugitive sources would be able to use engineering estimates, emissions modeling software, publicly available

emission factors, and leak detection. For smaller fugitive sources and those inaccessible to plain view, component count and population emissions factors are proposed.

CO₂ INJECTION AND GEOLOGIC SEQUESTRATION (SUBPART RR)

Coverage. All facilities that inject CO₂ underground for long-term containment, whether for the specific purpose of long-term geologic sequestration (“GS facilities”) or to enhance oil and gas recovery, would need to report under Subpart RR of EPA’s new proposal. This subpart extends to both onshore and offshore injection wells and does not include any emissions- or injection-based threshold. EPA is soliciting comments, however, on whether the final rule should include some type of threshold.

What To Report. EPA is proposing a tiered approach for monitoring and reporting under Subpart RR. In the first tier, all CO₂ injection facilities would need to use flow meters to monitor their injection rates and then report the quantity of CO₂ received onsite annually from offsite locations, the quantity injected annually, and the source of the CO₂, if known. Facilities that already have flow meters installed for the Underground Injection Control (“UIC”) program of the Safe Drinking Water Act would be allowed to use those existing meters to measure injections for GHG reporting purposes.

The second tier under Subpart RR requires GS facilities to use a mass-balance approach for calculating CO₂ sequestered annually. GS facilities also would need to develop a site-specific monitoring, reporting, and verification (“MRV”) plan to address the risk of CO₂ leakage to the surface. Quantities of any CO₂ leakage would need to be reported, along with fugitive and vented emissions under either this Subpart or proposed Subpart W, as applicable.

Facilities using CO₂ injection to enhance oil and gas recovery would not be considered GS facilities under Subpart RR, unless they choose to submit and gain approval of MRV plans. In the absence of an approved MRV plan, non-GS facilities would be subject to only the first tier of

reporting requirements. Federally funded projects for the research and development of geologic sequestration technology also would be exempt from all but the first tier of reporting obligations.

Defining “Facility.” Given the lack of any threshold in Subpart RR, EPA is not proposing a definition to govern the aggregation of groups of injection wells at non-GS facilities. Owners and operators of non-GS injection facilities could choose to report on a well-by-well basis or to group wells together by area. EPA is soliciting comments on whether a more precise definition of a CO₂ injection “facility” is necessary.

For GS facilities, EPA is proposing a narrower definition of “facility” to address situations where numerous injection wells are located together under common ownership or control, but only a subset would be considered GS facilities. In these situations, the question of whether and how to aggregate wells could determine whether additional requirements apply. Therefore, EPA is proposing to define a GS facility to include all structures associated with the injection of CO₂ located between points of CO₂ transfer onsite from offsite and one or more injection well(s). Monitoring requirements would most likely extend beyond the boundaries of the GS “facility.”

Relation to UIC Permitting Proposal. EPA states that proposed Subpart W would serve as a counterpart to the agency’s July 2008 proposal⁵ to create a new class of UIC permits required for geological sequestration injection wells (Class VI). The GHG reporting proposal would track the quantity of CO₂ that is geologically sequestered each year, while the UIC proposal is aimed at protecting underground sources of drinking water from injection activities.

SOURCES OF FLUORINATED GHGs (SUBPARTS I, L, DD, OOA, AND SS)

Coverage and What to Report. EPA’s new proposal requires reporting by facilities in the following source categories, if they emit (or import/export products that emit) 25,000 metric tons or more of CO₂e annually in the form of fluorinated GHGs:

⁵ 73 Fed. Reg. 43492 (July 25, 2008), available at <http://www.epa.gov/fedrgstr/EPA-WATER/2008/July/Day-25/w16626.pdf>.

Subpart	Covered Source Categories	What To Report
I	Electronics manufacturing, including semiconductors, photovoltaic cells, liquid crystal displays, and micro-electro-mechanical systems	GHGs emitted during manufacturing processes, such as plasma etching, cleaning, and heat transfer fluid use
L	Fluorinated gas production, including hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF ₆), nitrogen trifluoride (NF ₃), chlorofluorocarbons (CFCs), and hydrochlorofluorocarbons (HCFCs);	GHGs emitted during fluorinated gas production, transformation, and destruction
DD	Use of equipment in an electric transmission and distribution system	GHGs emitted from equipment leaks, installation, servicing, storage, etc., and certain non-emission-related info such as transmission mileage
OOa	Imports and exports of pre-charged equipment or closed-cell foams containing fluorinated GHGs	Imports and exports of covered equipment
SS	Manufacturing of electric transmission and distribution equipment ⁶	GHG emissions during manufacturing, testing, development, etc. of covered equipment, and certain non-emission-related info such as fluorinated GHG sales and purchases

⁶ The emissions threshold for Subpart SS is applied as consumption-based threshold of 23,000 lbs. of SF₆ and PFCs, which is equivalent to 25,000 metric tons of CO₂e. A consumption-based threshold was chosen to allow a quick assessment of applicability by referring to purchase records.

The last two of these covered source categories—OOa and SS—were not part of EPA’s original proposal in April 2009. EPA originally thought it would be too difficult to quantify the fluorinated GHGs inside covered products. After further review, EPA now believes any technical issues can be resolved for the relatively small number of covered entities.

Defining the “Facility.” For users of electric transmission and distribution equipment under Subpart DD, the “facility” consists of an entire electric power system. A “system” is defined in the new proposal as the entire collection of SF₆- and PFC-insulated equipment linked through electric power transmission or distribution lines and operated as an integrated unit by one electric power entity or several entities that have a single owner. To distinguish between different entities and owners, Subpart DD integrates a list of

power entities used by the Energy Information Administration (“EIA”). EPA acknowledges in the proposal that some facilities regulated by Subpart DD would be spread across multiple states.

Calculation Methodologies. In the Subparts applicable to fluorinated gas facilities, EPA proposes detailed and complex provisions on how covered sources should go about calculating their GHG emissions. Emission factors and mass-balance equations generally play a large role in this respect. EPA is seeking comment on a huge range of technical issues associated with calculating fluorinated GHG emissions. Some of the methodologies under consideration have been revised or added since EPA’s original proposal in April 2009.

HOW TO RESPOND

Owners and operators of facilities that are potentially affected by EPA's latest proposal for GHG reporting should adopt a two-part strategy going forward. First, owners and operators should carefully review the proposal to identify important issues on which EPA is requesting additional public comment. These include a huge range of technical and logistical matters relating to emission thresholds, source aggregation, and emissions monitoring and calculation methodologies. Public comments on the proposals will be due 60 days after publication in the Federal Register.

Second, owners and operators should start now on their compliance plans. Data collection activities will need to begin for covered sources on January 1, 2011, and may require a significant amount of time and effort to implement. In developing a plan to fulfill these requirements, owners and operators should look not only to the potentially applicable subparts of EPA's new proposals, but also to final regulations at 40 C.F.R Part 98. Facilities that are covered by the new proposals also may have obligations under subparts that are already in effect, such as 40 C.F.R. Part 98, Subpart C for General Stationary Fuel Combustion Units.

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