Office of Nuclear Safety, Quality Assurance and Environment

Environmental Policy and Assistance Information Notice



Environmental Protection Agency Clean Air Act Proposed Rule *Mandatory Reporting of Greenhouse Gases*



April 2009

Background:

In its Fiscal Year 2008 Consolidated Appropriations Act (Public Law 110–161), Congress directed the Environmental Protection Agency (EPA) to publish a mandatory Greenhouse Gas (GHG) reporting rule on April 10, 2009. EPA published a proposed rule for mandatory GHG reporting (40 CFR 98) under the Clean Air Act (CAA) (74 FR 16448-16731). The abatement control of GHGs is not addressed in the proposed rule.

Applicability to Department of Energy (DOE) Facilities:

There are two primary ways that DOE facilities become subject to this reporting rule. First, operations involving 1 of 20 listed source categories (40 CFR 98.2(a) (1)) are subject to the rule. The listed source categories are primarily made up of chemical and metals manufacturing facilities. These source categories most likely applicable to DOE facilities include:

- Electricity generating facilities that are subject to the CAA Acid Rain Program, or that contain generating units that collectively emit more than 25,000 metric tons carbon dioxide equivalent (CO₂e) or more per year;
- Electronics—Semiconductor, microelectricomechanical system and liquid crystal display manufacturing facilities with an annual production capacity that exceed thresholds defined in 40 CFR 98.2(a)(vi); and
- Electric power systems that include electrical equipment with a total nameplate capacity that exceeds 17,820 lbs (7,838 kg) of sulfur hexafluoride (SF₆) or perfluorocarbons.

The second way DOE facilities would be subject to the rule is if they generate emissions of at least 25,000 metric tons of CO_2e in combined emissions from stationary fuel combustion, miscellaneous carbonate use, and specific source categories (40 CFR 98.2(a) (2)) with those most likely applicable to DOE activities being:

- Electricity generation;
- Electronics-photovoltaic manufacturing;
- Glass production;
- Hydrogen production;
- Industrial landfills; and
- Wastewater operations.

If the maximum rated heat input capacity for all stationary fuel combustion equipment is less than 30 million British thermal units, the facility is presumed to emit less than 25,000 metric tons of CO₂e and is not subject to this rule. <u>It should be noted that this proposed rule only addresses direct emitters of GHGs and not indirect emitters (e.g., through electricity use)</u>. In addition, GHG emissions from biomass fuel combustion are excluded from the threshold calculation.

A third class of facilities subject to this rule is suppliers of fossil fuels and industrial GHGs (40 CFR 98.2(a) (4)). This class is unlikely to include DOE facilities.

Calculation Methodology:

EPA is proposing that facilities that are already reporting and collecting emissions data use direct measurement to determine the amount of their emissions. Facility-specific calculations are proposed for other source categories and are included in 40 CFR 98.413.

Reporting Requirements:

The proposed rule would require reporting of annual emissions, starting in 2010, of CO_2 , nitrous oxide, methane, SF_6 , hydrofluorocarbons, perfluorocarbons, and other fluorinated gases (e.g., nitrogen trifluoride, hydrofluorinated ethers).

If the 25,000 metric ton threshold is exceeded, the facility would be required to report emissions from all source categories at the facility for which calculation methodologies are provided in any subpart of the proposed rule.

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The following information would be reported as part of an annual emission report:

- Total facility emissions in metric tons of CO₂e aggregated for all source categories;
- Total emissions in metric tons of CO₂e aggregated from all supply operations;
- Emissions from each source category and supply operation expressed in metric tons of each GHG;
- Onsite electricity generation in kilowatt-hours; and
- Any additional information, including unit- or processlevel emissions, activity data (e.g., fuel use, feedstock inputs), or quality assurance/quality control data.

Facilities covered by the rule would report emissions from the stationary fuel combustion devices shown below. Note this calculation does not include mobile fuel combustion devices.

- Boilers
- Stationary engines
- Process heaters
- Combustion turbines
- Other fuel combustion equipment

Unlike some reporting rules at the State level and in voluntary programs, this proposed rule does not have de minimis reporting for minor emission points.

Facilities subject to the rule would need to submit reports electronically on an annual basis. Facilities that are already reporting GHG data to EPA would continue their current practice at the required frequency. The annual report can be filed by either the owner or operator of the facility. Each report would be signed by a designated representative of the owner or operator, certifying under penalty of law that the report has been prepared in accordance with the requirements of the rule.

Certification of Emissions Information and Recordkeeping:

EPA is proposing that each facility self certify, with EPA verification. Under this approach, all reporters subject to this rule would certify that the information they submit to EPA is truthful, accurate, and complete. EPA would then review the emissions data and supporting data submitted by reporters to verify that the GHG emission reports are complete, accurate, and meet the reporting requirements of this rule. Each facility would be required to retain its records for five years in electronic or hard-copy format.

Implementation Dates:

Facilities and suppliers would begin collecting data on January 1, 2010. The first emissions report would be due on March 31, 2011, for emissions during 2010. Once a facility or supplier is subject to this rule, it would continue to submit annual reports even if they fall below the threshold. The proposed rule requests comment on a practice that California follows which is to exclude facilities from reporting if they are below the threshold for three consecutive years.

EPA Solicitation of Comments:

The proposed rule is soliciting comments on whether the amount of electricity purchased should be reported, although the rule does not propose such reporting.

Regarding the implementation dates, EPA has presented two other options in the proposed rule for comment, but appears to favor the above schedule. The first option involves collecting best available data in the first year and full data collection in following years. The second option delays the program one year, so data collection would begin January 1, 2011, and the first emissions report would be due March 31, 2012.

EPA is seeking comment on whether the mandatory GHG reporting program should include provisions to require reporters to submit recalculated data if it is determined that the original calculations were not correct, and under what circumstances such recalculations should be required.

Importance to DOE Operations:

This rule will affect any DOE site that meets the reporting threshold. Each site should review the source categories and emissions from stationary combustion devices to determine if it is subject to the rule. Those facilities that are subject to the rule will need to become familiar with the monitoring, reporting, and recordkeeping requirements.

Solicitation of Review and Comments:

Please review the proposed rule and submit comments by May 11, 2009, to Josh Silverman of the Office of Environmental Policy and Assistance

(Josh.Silverman@hq.doe.gov; 202-586-6535). In developing comments, please indicate the specific pages and section of the Federal Register notice to which each comment pertains. Questions concerning the rulemaking should be directed to Dr. Silverman.

April 2009

HS-22 Environmental POC distribution list April 2009

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