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Climate Change Division
Office of Atmospheric Programs (MC-6207-A)
US Environmental Protection Agency
1200 Pennsylvania Avenues, NW
Washington, DC 20460

RE: Offshore Operators Committee (OOC) and National Ocean Industries Association (NOIA) Comments
Revisions and Confidentiality Determinations for Data Elements Under the Greenhouse Gas Reporting Rule
Docket ID Number EPA-HQ-OAR-2019-0424

The Offshore Operators Committee (OOC) and the National Ocean Industries Association (NOIA) appreciate the opportunity to provide recommendations and comments on the above-captioned proposed rulemaking. Comments submitted on behalf of OOC and NOIA members are submitted without prejudice to any member's right to have or express different or opposing views. It is from this perspective that these recommendations have been developed.

OOC and NOIA represent offshore energy operators, contractors, and service providers who conduct essentially all of the offshore energy exploration, development and production activities on the Outer Continental Shelf (OCS). Our members recognize that offshore operations must be conducted safely and in a manner that protects the environment. The offshore industry has a long history of safe operations that have advanced the energy security of our nation and provided energy resources which are crucial to our nation's economy.

Our technical recommendations are included in the attachment. The attached comments are structured to include suggested edits to the proposed rule and justification for the suggested change.

OOC and NOIA appreciate EPA's efforts and look forward to working with the agency on the issues included in our comments as the rule is developed, published and finalized. If you have any questions or require additional information, please contact Greg Southworth at greg@theooc.org.

Sincerely,

Greg Southworth
Associate Director
Offshore Operators Committee

Erik Milito
President
National Ocean Industries Association

No.	Section/Paragraph Reference	Proposed Text	Comment
1	98.33(c)(1) 98.33(c)(1)(i) 98.33(c)(1)(ii) 98.33(c)(2) 98.33(c)(3) 98.33(c)(4)	EF = Fuel-specific default emission factor for CH ₄ or N ₂ O, from Table C–2 of this subpart (kg CH ₄ or N ₂ O per mmBtu), except for natural gas compressor drivers at facilities subject to subpart W of this part, which must use the applicable CH ₄ emission factor from Table W–9 to subpart W of this part.	<p>The proposed text appears in 6 paragraphs in the proposed rule.</p> <p>OOC and NOIA recommend that the proposed text be modified as follows:</p> <p><i>EF = Fuel-specific default emission factor for CH₄ or N₂O, from Table C–2 of this subpart (kg CH₄ or N₂O per mmBtu), except for natural gas compressor drivers at facilities subject to subpart W of this part, which must use the applicable CH₄ emission factor from Table W–9 to subpart W of this part, Table C-2, or site-specific emission factors.</i></p> <p><u>Rationale:</u> Table W-9 contains default emission factors for Natural Gas-Fired Compressor Drivers only. Table W-9 does not contain emission factors for natural gas-driven turbines (ex. compressor drivers). Natural gas turbines are common equipment in offshore oil and natural gas production operations. The regulated community needs appropriate emission factors for natural gas turbines to successfully report GHG emissions from these sources.</p> <p>In addition, site-specific emission factors may be available for certain equipment from the equipment manufacturer or from equipment testing. If those factors are available, the regulated community should have the option of using those emission factors.</p>
2	98.36(c)(1) 98.36(c)(3)	(c)(1) <i>Aggregation of units.</i> If a facility contains two or more units (e.g., boilers or combustion turbines), each of which has a maximum rated heat input capacity of 250 mmBtu/hr or less, you may report the combined GHG emissions for the group of units in lieu of reporting GHG emissions from the individual units, provided that the use of Tier 4 is not required or elected for any of the units and the units use the same tier for any	<p>OOC and NOIA recommend that the proposed regulatory language be modified to read as follows:</p> <p><i>(c)(1) Aggregation of units. If a facility contains two or more units (e.g., boilers or combustion turbines), each of which has a maximum rated heat input capacity of 250 mmBtu/hr or less, you may report the combined GHG emissions for the group of</i></p>

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		<p>common fuels combusted. Compressor drivers that calculate emissions using an applicable CH4 emission factor from Table W-9 to subpart W of this part, must be reported as their own aggregation of units configuration, according to design class (i.e., two-stroke lean-burn, four-stroke lean-burn, and four-stroke rich-burn). You may not have a combination of one design class of compressor driver (using one Table W-9 CH4 emission factor) and other combustion units (e.g., using a Table C-2 CH4 emission factor or another Table W-9 CH4 emission factor) in the same aggregation of units configuration. If this option is selected, the following information shall be reported instead of the information in paragraph (b) of this section:</p> <p>(c)(3) Compressor drivers that calculate emissions using an applicable CH4 emission factor from Table W-9 to subpart W of this part, must be reported as their own common pipe configuration, according to design class (i.e., two-stroke lean-burn, four-stroke lean-burn, and four-stroke rich-burn). You may not have a combination of one design class of compressor driver (using one Table W-9 CH4 emission factor) and other combustion units (e.g., using a Table C-2 CH4 emission factor or another Table W-9 CH4 emission factor) in the same common pipe configuration. When the common pipe reporting option is selected, the following information shall be reported instead of the information in paragraph (b) of this section:</p>	<p><i>units in lieu of reporting GHG emissions from the individual units, provided that the use of Tier 4 is not required or elected for any of the units and the units use the same tier for any common fuels combusted. Compressor drivers that calculate emissions using an applicable CH4 emission factor from Table W-9 to subpart W of this part, must be reported as their own aggregation of units configuration, according to design class (i.e., two-stroke lean-burn, four-stroke lean-burn, and four-stroke rich-burn). You may not have a combination of one design class of compressor driver (using one Table W-9 CH4 emission factor, or site-specific emission factors) and other combustion units (e.g., using a Table C-2 CH4 emission factor or another Table W-9 CH4 emission factor, or site-specific emissions factors) in the same aggregation of units configuration. If this option is selected, the following information shall be reported instead of the information in paragraph (b) of this section:</i></p> <p><i>(c)(3) Compressor drivers that calculate emissions using an applicable CH4 emission factor from Table W-9 to subpart W of this part, must be reported as their own common pipe configuration, according to design class (i.e., two-stroke lean-burn, four-stroke lean-burn, and four-stroke rich-burn). You may not have a combination of one design class of compressor driver (using one Table W-9 CH4 emission factor, or site-specific emission factors) and other combustion units (e.g., using a Table C-2 CH4 emission factor or another Table W-9 CH4 emission factor, or site-specific emission factors) in the same common pipe configuration. When the common pipe reporting option is selected, the following information shall be reported instead of the information in paragraph (b) of this section:</i></p> <p><u>Rationale:</u> Site-specific emission factors may be available for certain equipment from the equipment manufacturer or from equipment testing. If those factors are available, the regulated</p>

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			community should have the option of using those emission factors.
3	98.232(b)	For offshore petroleum and natural gas production, report CO ₂ , CH ₄ , and N ₂ O emissions from equipment leaks, vented emission, and flare emission source types as identified in the data collection and emissions estimation study conducted by BOEM in compliance with 30 CFR 550.302 through 304 and CO ₂ and CH ₄ emissions from other large release events. Offshore platforms do not need to report portable emissions.	<p>OOC and NOIA recommend the proposed regulatory text be modified as follows:</p> <p><i>For offshore petroleum and natural gas production, report CO₂, CH₄, and N₂O emissions from equipment leaks, vented emission, and flare emission source types as identified in the data collection and emissions estimation study conducted by BOEM in compliance with 30 CFR 550.302 through 304 and CO₂ and CH₄ emissions from offshore large release events. Offshore platforms do not need to report portable emissions.</i></p> <p><u>Rationale:</u> See recommendations in Comment #5 proposing a new definition of offshore large release event.</p>
4	98.236(y)	<p><i>Other large release events.</i> You must indicate whether there were any other large release events from your facility during the reporting year. If there were any other large release events, you must report the total number of other large release events from your facility that occurred during the reporting year and, for each other large release event, report the information specified in paragraphs (y)(1) through (8) of this section.</p> <p>(1) Unique release event identification number (e.g., Event 1, Event 2).</p> <p>(2) The approximate start date, start time, and duration (in hours) of the release event.</p> <p>(3) A general description of the event. Include:</p> <p>(i) Identification of the equipment involved in the release.</p> <p>(ii) A description of how the release occurred, from one of the following categories: fire/explosion, gas well blowout, oil well blowout, gas well release, oil well release, pressure relief, large leak, and other (specify).</p> <p>(iii) A description of the technology or method used to identify the release.</p>	<p>OOC and NOIA recommend the proposed regulatory text be modified as follows:</p> <p><i>Other large release events or offshore large release events.</i> You must indicate whether there were any other large release events or offshore large release events from your facility during the reporting year. If there were any other large release events or offshore large release events, you must report the total number of other large release events or offshore large release events from your facility that occurred during the reporting year and, for each other large release event, report the information specified in paragraphs (y)(1) through (8) of this section.</p> <p>(1) Unique release event identification number (e.g., Event 1, Event 2).</p> <p>(2) The approximate start date, start time, and duration (in hours) of the release event.</p> <p>(3) A general description of the event. Include:</p> <p>(i) Identification of the equipment involved in the release.</p> <p>(ii) A description of how the release occurred, from one of the following categories: fire/explosion, offshore loss of well</p>

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		<p>(iv) An indication of whether the release was identified under the provisions of part 60, subpart OOOOb of this chapter or an applicable approved state plan or applicable Federal plan in part 62 of this chapter.</p> <p>(v) An indication of whether a portion of the natural gas released was combusted during the release, and if so, the fraction of the natural gas released that was estimated to be combusted.</p> <p>(4) The total volume of gas released during the event in standard cubic feet.</p> <p>(5) The volume fraction of CO₂ in the gas released during the event. (6) The volume fraction of CH₄ in the gas released during the event. (7) Annual CO₂ emissions, in metric tons CO₂, from the release event. (8) Annual CH₄ emissions, in metric tons CH₄, from the release event.</p>	<p><i>control, gas well blowout, oil well blowout, gas well release, oil well release, pressure relief, large leak, and other (specify)...</i></p> <p><u>Rationale:</u> See recommendations in Comments #5 and #6 proposing a new definition of offshore large release event and offshore loss of well control.</p>
5	98.238	<p><i>Other large release event</i> means an unplanned, unexpected, and uncontrolled release to the atmosphere of gas, liquids, or mixture thereof, from wells and/or other equipment that result in emissions for which there are no methodologies in §98.233 to appropriately estimate these emissions. Other large release events include, but are not limited to, well blowouts, well releases, pressure relief valve releases from process equipment other than onshore production and onshore petroleum and natural gas gathering and boosting storage tanks, and releases that occur as a result of an accident, equipment rupture, fire, or explosion. Other large release events also include failure of equipment or equipment components such that a single equipment leak or release has emissions that exceed the emissions calculated for that source using applicable methods in §98.233 by the threshold in §98.233(y).</p>	<p>OOC and NOIA recommend that EPA create a separate, stand-alone definition of “large release events” for offshore operations. We recommend the following definition:</p> <p><i>Offshore large release event is a gas release that initiates equipment or process shutdown (as used in 30 CFR 250.188(b)(2)) and refers to any gas release that results in a manual or automated response shutdown function for equipment or processes that exceeds 250 metric tons of CO₂e.</i></p> <p><u>Rationale:</u> Offshore operators are required to report gas releases from any type of equipment that results in a manual or automated response shutdown function to the Bureau of Safety and Environmental Enforcement (BSEE). These BSEE reportable events are currently tracked, logged and reported. Therefore, to promote regulatory consistency and efficient reporting it is prudent for EPA to adopt a similar definition for GHG reporting purposes.</p>
6	98.238	<p><i>Well blowout</i> means a complete loss of well control for a long duration of time resulting in an emissions release.</p>	<p>OOC and NOIA recommend the following definition be added for offshore operations:</p>

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		<p><i>Well release</i> means a short duration of uncontrolled emissions release from a well followed by a period of controlled emissions release in which control techniques were successfully implemented.</p>	<p><i>In terms of emissions, offshore loss of well control (as used in 30 CFR 250.188(a)(3)) means the uncontrolled flow of formation or other fluids at the surface (a surface blowout), flow through a diverter, or uncontrolled flow resulting from a failure of surface equipment or procedures.</i></p> <p><u>Rationale:</u> Similar to gas releases discussed in Comment #4, existing BSEE regulations contain definitions for loss of well control for offshore operations. We recommend EPA adopt these definitions for GHG reporting to promote regulatory consistency and reporting efficiency.</p> <p>The BSEE definition at 30 CFR 250.188(a)(3) also includes “underground blowouts” as a type of loss of well control. Underground blowouts are uncontrolled fluid flow between two subsurface formations. Our recommendation does not include a reference to underground blowouts because gas would not reach the atmosphere (no emissions) in that type of event.</p>								
7	TABLE W-9 TO SUBPART W OF PART 98 – DEFAULT METHANE EMISSION FACTORS FOR NATURAL GAS-FIRED COMPRESSOR DRIVERS	<table border="1" data-bbox="737 922 1199 1084"> <thead> <tr> <th data-bbox="737 922 919 992">Compressor-driver engine design class</th> <th data-bbox="919 922 1199 992">Emission factor (kg CH₄/mmBtu)</th> </tr> </thead> <tbody> <tr> <td data-bbox="737 992 919 1024">2-stroke lean-burn</td> <td data-bbox="919 992 1199 1024">0.658</td> </tr> <tr> <td data-bbox="737 1024 919 1049">4-stroke lean-burn</td> <td data-bbox="919 1024 1199 1049">0.522</td> </tr> <tr> <td data-bbox="737 1049 919 1073">4-stroke rich-burn ..</td> <td data-bbox="919 1049 1199 1073">0.045</td> </tr> </tbody> </table>	Compressor-driver engine design class	Emission factor (kg CH ₄ /mmBtu)	2-stroke lean-burn	0.658	4-stroke lean-burn	0.522	4-stroke rich-burn ..	0.045	<p>Table W-9 does not contain methane emission factors for natural-gas driven turbines. OOC and NOIA recommend that EPA incorporate emission factors by allowing the use factors from Table C-2 for turbines and allow the use of site-specific emission factors based on manufacturers’ data or available equipment engine tests.</p>
Compressor-driver engine design class	Emission factor (kg CH ₄ /mmBtu)										
2-stroke lean-burn	0.658										
4-stroke lean-burn	0.522										
4-stroke rich-burn ..	0.045										