



Via email

May 5, 2016

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**Re: Air Quality, 30 CFR Part 550, Subparts A, B, and C (Proposed Rulemaking)**  
**Docket ID: BOEM-2013-0081, RIN 1010–AD82**  
**API Comments on Information Collection Request (ICR), OMB Control Number 1010-New**

The American Petroleum Institute (API) respectfully submits the attached comments on the information collection (IC) aspects of the Bureau of Ocean Energy Management's (BOEM) proposed revisions to 30 CFR 550, Subparts A, B, and C. These proposed revisions, referred to as the BOEM "Air Quality Control, Reporting and Compliance" rule, were published in the Federal Register on April 5, 2016.

API represents over 650 oil and natural gas companies, leaders of a technology-driven industry that supplies most of America's energy, supports more than 9.8 million jobs and 8 percent of the U.S. economy, and, since 2000, has invested nearly \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives. Many of our members operate offshore production facilities in the Central and Western Gulf of Mexico and have leases off the coast of Alaska and will be directly impacted by the proposed rule. Our comments are submitted without prejudice to any of our member companies' right to have or express different or opposing views.

In accordance with the Paperwork Reduction Act (PRA) of 1995, BOEM submitted an information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval under 44 U.S.C. 3507(d). OMB is required to make a decision concerning the collection of information contained in the proposed regulations between 30 and 60 days after the publication of the document in the Federal Register. Consequently, industry was provided only 30 days to comment on the IC aspects of the proposed rule. The proposed rule is lengthy and complex, and because there was not an Advanced Notice of Proposed Rulemaking, industry did not have an opportunity to supply information on technical and operational issues that may impact the feasibility of BOEM's proposed changes. Due to the limited time available, it was not possible to perform a detailed analysis of the background information on the IC burden. We may supplement our response or address additional burden concerns in our letter commenting on the entirety of the proposal.

The attachment to this letter includes a mark-up of the IC Burden Table contained in the preamble to the proposed rule along with our detailed responses to specific questions posed by BOEM on the reporting and recordkeeping burden in their ICR analysis (see 81 FR 19787-19791). Some of our key concerns are summarized below:

***As OCS operations have minimal impact on onshore air quality, the proposed rule and the resulting additional data burden are unwarranted.***

The proposed rule represents substantive changes to the existing regulatory framework, including the replacement of the current 30 CFR 550 Subpart C rule text in its entirety. The new rule would exponentially increase the data collection burden on offshore operators and is not reasonable considering the minimal impact of Outer Continental Shelf (OCS) operations on onshore air quality. BOEM's statutory mandate under the Outer Continental Shelf Lands Act (OCSLA) is to regulate OCS air emissions for compliance with the National Ambient Air Quality Standards (NAAQS) to the extent that activities authorized by OCSLA Chapter 29, Subchapter III, §1334, significantly affect the air quality of any state. As presented during API's meeting with OMB on January 13, 2016, a review of State Implementation Plans for affected States and BOEM National Environmental Policy Act (NEPA) analyses concluded that OCS operations do not have a significant effect on onshore air quality under the current air quality regulatory program. Indeed, BOEM's Environmental Assessment of the proposed rule states that "On the whole, however, OCS operations have a minimal impact on the air quality onshore"<sup>1</sup>. Based on BOEM's own NEPA analyses and admission that OCS operations have minimal impact on the air quality onshore, no additional burden hours and non-hour costs are justified.

***The proposed rule contains many incomplete provisions, precluding an accurate assessment of the true IC burden costs.***

In many instances the provisions of the proposed regulations appear to be incomplete or premature. BOEM has specifically solicited comments on over forty issues in the proposed rule that have not been fully developed or defined. For example, a major reporting provision of the proposed rule contained in §550.311(b)(2) states "BOEM will consider various alternatives for reporting of relevant emissions sources. One option would be to monitor only the following key pieces of equipment." Without fully developed answers to these issues, it is impossible to accurately assess the true and real IC Burden costs associated with the proposed rule. Assessing the costs of a reporting requirement described as "likely" or "typically" to include certain sources is not practically feasible.

***BOEM's analysis significantly underestimates the IC burden.***

BOEM's analysis significantly and arbitrarily underestimates the IC burden hours and non-hour costs that will be incurred by the regulated community as a result of the proposed regulation. The proposed rule includes a Burden Table that provides a breakdown of the IC estimates for the rule's reporting and recordkeeping requirements. BOEM evaluated the proposed new requirements and estimates that the hour burden for the rulemaking is 146,490 hours and \$3,455,000 in non-hour costs. As documented in our attached comments<sup>2</sup>, a more reasonable estimate of the hour burden and non-hour costs associated with the proposed rule would be between 1,254,210 and 2,555,677 hours and \$352,948,333 and \$1,160,345,000 non-hour costs. Considering the minimal impact OCS operations have on onshore air quality, the foregoing IC burden costs associated with the proposed rule are neither reasonable nor necessary.

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<sup>1</sup> BOEM, March 2016 Environmental Assessment, Section 4.2 – Alternative B: No Action Alternative, Pg. 17

<sup>2</sup> Costs reflected in the mark-up of the Burden Table collected by the Offshore Operators Committee.

***BOEM has not met its obligations under the PRA and OMB should deny or request revision of BOEM's ICR submittal.***

Under OCSLA, BOEM lacks authority to collect the information at issue. OCSLA places a particularly stringent limitation on BOEM's implementation of air quality regulations affecting development on the OCS. OCSLA limits BOEM's actions to addressing compliance with "national ambient air quality standards" where OCS activities "significantly affect the air quality of any State." Yet BOEM not only admits that the costs and benefits of its proposal are "tremendously uncertain" (or have negative benefits), BOEM seeks information on items that are admittedly not covered by the national ambient air quality standards, for which it has no authority to regulate.

As OMB considers action on this ICR, it should independently exercise its judgment regarding the justification for the substantially increased burdens and obligations in light of the Paperwork Reduction Act,<sup>3</sup> including whether BOEM has satisfied its obligations. Given the issues raised in this letter and attachments, OMB should (1) disapprove the ICR or (2) return the ICR to BOEM with direction to revise the ICR consistent with its statutory authorities, and revise either (a) the proposed rule to match the ICR or (b) the ICR to match the proposed rule. Specifically, BOEM has not met its obligations under the PRA as follows:

- The proposed collection of information goes beyond that necessary to properly perform BOEM's functions under OCSLA Section 5(a)(8),<sup>4</sup> and BOEM has not shown that it has taken every reasonable step to ensure that it is imposing the least burden necessary to perform such functions;
- BOEM has not taken every reasonable step to ensure that the proposed collection of information is not duplicative of information otherwise accessible to the Agency;
- BOEM has not demonstrated the practical utility of the information proposed to be collected; and
- The Agency's estimate of the burden of the proposed collection of information is inaccurate.

Because BOEM has not met its obligations under the PRA for this ICR, BOEM must reconsider its prior decision to certify that its ICR satisfied OMB's requirements. For these same reasons, OMB should deny BOEM's request under the PRA.

We appreciate the opportunity to comment on the collection of information contained in this rulemaking and are available for further discussions at your convenience. If you have any questions, please contact me at [radforda@api.org](mailto:radforda@api.org) or at 202.682.8584.

Best regards,



Andy Radford

Attachment 1 – Information Collection Request Comments

cc: Abigail Hopper, Director, Bureau of Ocean Energy Management  
Walter Cruickshank, Deputy Director, Bureau of Ocean Energy Management

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<sup>3</sup> 44 U.S.C. §§ 3501 *et seq.*

<sup>4</sup> 43 U.S.C. § 1334(a)(8).

## Attachment 1 – Information Collection Request Burden Comments

As required by the Paperwork Reduction Act (PRA),<sup>1</sup> the Bureau of Ocean Energy Management (BOEM) submitted a collection of information contained in the Air Quality Control, Reporting and Compliance; Proposed Rule, 81 Fed. Reg. 19,718, to the Office of Management and Budget (OMB) for review and approval under 44 U.S.C. Section 3507(d). This document presents comments on BOEM's information collection request (ICR), specifically in response to BOEM and OMB's solicitation of comments on the following five areas of the ICR burden analysis:

1. Is the proposed collection of information necessary for BOEM to properly perform its functions, and will it be useful?
2. Are the estimates of the burden hours of the proposed collection reasonable?
3. Do you have any suggestions that would enhance the quality, clarity, or usefulness of the information to be collected?
4. Is there a way to minimize the IC burden on those who must respond, including the use of appropriate automated electronic, mechanical, or other forms of information technology?
5. BOEM solicited comments on the total annual reporting and recordkeeping non-hour cost burden resulting from the collection of information.

### **(1) Is the proposed collection of information necessary for BOEM to properly perform its functions, and will it be useful?**

BOEM's statutory mandate under the Outer Continental Shelf Lands Act (OCSLA) is to regulate Outer Continental Shelf (OCS) air emissions for compliance with the National Ambient Air Quality Standards (NAAQS) to the extent that activities authorized by OCSLA Chapter 29, Subchapter III, §1334, significantly affect onshore air quality of any state. The collection of information proposed with the new rule would exponentially increase the data collection burden on offshore operators with no apparent benefit to OCSLA's mandate to ensure that OCS emissions do not significantly affect onshore air quality for NAAQS compliance. This response identifies specific rule provisions we believe are not useful and/or are unnecessary for BOEM to properly perform its functions.

### Expanded Emissions Source Information Collection and Reporting Requirements

Section 550.187 describes the information collection burden during operation. This section requires collection and maintenance of

“information regarding all air pollutant emissions from all emissions sources associated with your operations ... for a period of no less than 10 years. You must submit this information to the appropriate regional office on an ongoing basis according to a schedule corresponding to the schedule for the National Emissions Inventory as established by the USEPA.”

The section goes on to require:

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<sup>1</sup> 44 U.S.C. §§ 3501 *et seq.*

“The information provided must include the emissions of or the activity data necessary to calculate the emissions of stationary emissions sources, including all facilities, and all non-stationary sources, including MSC(s) and any other non-stationary emissions source(s) of air pollutants above the OCS or above State submerged lands that operate in support of your facility or facilities, as determined by the Regional Supervisor. You may request that the owner of such non-stationary emissions source(s) provide the information to BOEM or a BOEM-designated agent, but if the owner does not provide the information, the lessee, operator, or RUE or pipeline ROW holder is still responsible for submitting the required information.”

Subsequent subsections identify an extremely detailed data collection proposal. Although collection of emissions data is relevant to the application process and for compliance purposes, the proposed rule is overly expansive:

- There are many small emission sources that have minimal emissions but require as much data collection as larger sources such as generator engines. For example, it appears that emissions data would be required for harbor engines or lifeboat engines because they are emissions sources, but they may rarely operate and their emissions are typically negligible even when they do operate.
- Section 550.280(a) requires that an operator may not install or use an emission source not described in the plan; and may not install or use substitute emission sources without BOEM approval. This over generalization could result in requiring an operator to obtain approval to replace something as insignificant as a valve that emits negligible amounts of fugitive emissions.
- BOEM potentially requires records of operating hours at every operating rate for every emissions unit. Such records may be of limited or no benefit yet will require costly installation of fuel and capacity monitors, as well as dataloggers.
- BOEM now proposes to require emissions information for multiple averaging periods for Mobile Support Craft (support vessels)(MSC) as well as from the drilling unit or platform. How emissions of MSCs are to be attributed to a single facility when many MSCs serve multiple facilities is yet to be determined and could impose an additional significant IC burden not contemplated in BOEM’s burden estimate.
- BOEM requires emissions data from MSCs even if the lease-holder or operator doesn’t own the MSC and even if the MSC owner is not willing to provide that information. Unlike fixed emission sources, collecting emissions data from mobile sources has no value because the onshore impact will depend on where the MSC is operating, which is highly variable and nearly impossible to predict in advance.
- Section 550.205 identifies the air emissions information that must be submitted with Exploration Plans (EP), Development and Production Plans (DPP), and Development Operations Coordination Documents (DOCD), or application for a Right-of-Use and Easement (RUE), pipeline Right-of-Way (ROW), or lease term pipeline. This section requests detailed information for the wide range of activities associated with exploration, development and production, including (for example) such detail as the serial numbers and revolutions per minute (rpm) of engines of support vessels. In many cases, this is virtually impossible to provide because even the support vessels themselves may not be identified in advance of operation – let alone the engines and serial numbers on the support vessels.

### Non-NAAQS Air Pollutant Requirements

Section 550.105 of the proposed rule provides new definitions. The definition of “Air Pollutant” has been expanded from criteria pollutants to include precursor pollutants, hazardous air pollutants (HAP), and greenhouse gases (GHG). Inclusion of hazardous air pollutants and greenhouse gas pollutants increases the number of pollutants BOEM collects information about from seven to as many as 200 pollutants. Regulating these additional pollutants is not authorized by OCSLA because it goes beyond the Department of Interior’s narrow mandate to regulate OCS activities for compliance with NAAQS, to the extent that offshore operations significantly affect the state’s air quality.

Section 550.187 requires data collection and submittal to allow BOEM to establish a comprehensive regional emission inventory of all pollutants. The expansion of the data collection is not authorized by BOEM’s authority under OCSLA. BOEM’s statutory authority to collect emissions data needs to be limited to those pollutants from OCS activities that significantly affect onshore air quality and interfere with NAAQS compliance.

BOEM requires applicants to identify SO<sub>2</sub> emissions attributable to H<sub>2</sub>S flaring but also requires identification of H<sub>2</sub>S emissions if they exceed the Significant Emission Rates (SER) established in Environmental Protection Agency’s (USEPA) Prevention of Significant Deterioration (PSD) program. While there is a need to account for SO<sub>2</sub> emissions due to flaring of H<sub>2</sub>S, there is no basis under OCSLA to require reporting of H<sub>2</sub>S emissions because there is no NAAQS for H<sub>2</sub>S.

By revising the definition of “air pollutant” to include non-NAAQS pollutants such as HAPs and GHG and by dramatically increasing the emission sources subject to the data collection and reporting requirements, the information collection burden increases substantially.

### Expanded Projected Emissions Requirements

#### *Potential Projected Emissions*

BOEM proposes to require identification of both the annual “potential projected” emissions and the rolling 12-month emissions. Given that the annual ambient standards are based on calendar years, there is no reason to require rolling 12-month projected emissions to evaluate compliance with the NAAQS. Note that the USEPA does not require permit applications for its Eastern Gulf of Mexico (GOM) operations to quantify a rolling 12-month projected emission rate. The purpose and usefulness of this data is unclear.

Given BOEM’s limited mandate to consider onshore air quality, it is appropriate to focus on the expected maximum emissions scenario. If detailed examination and analysis of that scenario does not significantly affect the air quality of a state and the state’s ability to comply with a NAAQS, the additional data collection for other operating modes with lower emissions is not necessary. On a case-specific basis, descriptions of operations outside of the maximum operating scenario might be provided to demonstrate their lower priority, but the level of detail should be reduced to only that necessary to demonstrate that emissions and potential onshore impacts are lower. For example, emissions associated with construction, installation, and decommissioning of a facility are generally much lower than normal operation, and they are short lived. There is no benefit to providing detailed information about all the emission sources during these phases of a project.

### *Emissions Sources – Mobile Support Craft*

BOEM proposes to require identification of MSCs and their annual, rolling 12-month, and hourly emissions, and to identify what other facilities would be served by a given MSC. With the exception of vessels engaged in geological and geophysical exploration (*see* 43 U.S.C. §1340(a)), BOEM’s regulatory authority under OCSLA is limited to “artificial islands[] and []installations...permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for, developing, or producing resources therefrom.”<sup>2</sup> This does not include vessels (except perhaps those attached to such artificial islands and installations for the purpose of exploring for, developing, or producing OCS resources). Nevertheless, BOEM’s attempt to impose such MSC regulatory requirements demonstrates a lack of understanding of the support vessel operations in the GOM.

OCS operators contract for services, but cannot be certain which vessel a contractor will assign – certainly not at the point exploration or development plans are being submitted. Likewise, identification of other offshore facilities to be served by a given MSC is unknown. Furthermore, BOEM asks that applicants identify the emissions per trip and multiply those emissions by the number of trips per year to identify annual emissions; this is impossible to project because there is no way to anticipate what route a support vessel will take years in advance of the trip. Nor is it practicable for an OCS operator to predict the types of support vessel activities that may be necessary over a 10-year span. Given these uncertainties, an operator cannot know what fraction of the trip emissions should be attributed to its facility.

### *Emissions Sources – Insignificant Emissions Sources*

BOEM proposes that all emissions sources be included when estimating projected emissions. This could conceivably include sources considered insignificant in other regulatory permitting programs, such as welding and painting maintenance activities, rescue boats, small storage tanks, or fugitive emissions (flanges, valves, etc.) on support vessels or mobile offshore drilling units (MODU). There is no reasonable rationale for requiring the collection of this level of detail for small sources on the OCS, and the burden of collection of this information in terms of cost and time would far outweigh any nominal benefit of collecting it.

### *Emissions Sources – Aircraft and Onshore Facilities*

Under the proposed rule, when predicted concentrations attributable to offshore sources are within 95% of a significant impact level (SIL), the proposed rule would require applicants to identify aircraft to be used to support the OCS operation. Similar to the situation with MSCs, it is virtually impossible to be certain which aircraft will be used for such service. The proposed rule further requires reporting of the fuel tank sizes of such aircraft and attribution of aircraft emissions to different OCS facilities. As acknowledged by BOEM in the preamble to the rule, the impacts from aircraft are negligible and rarely coincide in time or location with impacts from OCS sources. For this reason, these data are not useful for assessing onshore NAAQS compliance. There is no environmental benefit associated with requiring detailed information

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<sup>2</sup> 43 U.S.C. § 1333(a)

about aircraft even if OCS source contributions to onshore concentrations are within BOEM's arbitrary threshold of 95% of a SIL.

#### *Emissions Sources – Consolidated Facilities*

The information collection burden is expanded in this rule not only by the number of pollutants addressed, the ten-year time horizon, and by including MSC emissions, but also by the requirement to consolidate emissions with other facilities with common ownership and even other “proximate” facilities that may not be commonly owned or even constructed (Section 550.205(e)(1)). BOEM's IC burden table implies that this information is readily available, but the regulated community's collective experience is that it is sometimes very difficult or impossible to provide this information, and may raise confidentiality concerns.

#### Source Testing Requirements

Section 550.312 requires emission testing every three years if such testing was used to develop emission factors for a submitted plan. In most onshore permits and source test provisions in federal standards, source testing is limited to major emissions units and is limited to only initial testing or testing once every five or ten years. Source testing is far more complicated offshore than onshore due to safety considerations and space constraints, and should be limited accordingly. Considering the remoteness of the OCS facilities, and the safety considerations and space constraints, source testing, at most, should be required only for the largest emissions units at a facility and then only initially or once every five or ten years.

#### Expanded Modeling Requirements

BOEM's proposed rule requires compliance with the PSD increments in attainment areas. It should be noted that the “Ambient Air Increment” analysis is a very complex undertaking. Because the increment is determined by subtracting baseline concentrations from post-project concentrations for each PSD pollutant at every location in the modeling domain, one must model emissions that were occurring on the PSD baseline date as well as those after the new OCS source is operational. This requires knowledge of all onshore sources of emissions that became operational after the baseline date (and also those emission sources that may have been reduced or eliminated). BOEM has proposed this vastly complex modeling requirement but has not provided justification for the proposed change in modeling methods nor has it demonstrated how the additional data will improve its ability to assess the impact of OCS activities on onshore NAAQS. Furthermore, as provided in Appendix A, BOEM has significantly underestimated the cost and non-hour burden associated with this requirement.

BOEM also requires tables of maximum model-projected concentrations “over any areas of any states.” This is overly broad, and could be construed to require predictions anywhere in the United States.

#### Emission Reduction Measures

Section 550.309 requires verification that emission reduction measures (ERM) are effective, but is not clear on how the effectiveness of ERMs is demonstrated. Paragraph (d)(1) refers to Section 550.311, but



550.311 does not identify specifically how emissions are to be monitored. Because the proposed verification requirements are non-specific and incomplete, it is not possible to judge whether any requirements will be necessary or useful. If emission testing is to be required, that information is very expensive to obtain and must be limited to only the largest emission sources at a facility. Section 550.311 also gives the Regional Supervisor the discretion to require emissions monitors. Even at onshore sources, continuous emissions monitoring systems can cost \$250,000 or more to install and operate. BOEM must provide justification before requiring such expensive emissions monitoring to collect emission information.

#### Monitoring, Reporting and Recordkeeping

Section 550.309(e)(6) requires operators to notify states of a need to revise their State Implementation Plans (SIP) when operators acquire emission reduction credits from onshore sources. We are not aware of any SIPs in the Gulf States or Alaska that include emissions from OCS sources as part of attainment demonstrations. Furthermore, we are not aware of requirements for onshore facilities to notify states when reducing emissions at a facility located in an attainment area. States and federal authorities will be notified of emissions reductions at onshore facilities through typical permitting processes, therefore, there is no need to provide this additional information to states.

Section 550.311 identifies the conditions under which additional emissions reporting is required. BOEM should revise the proposed rule such that additional reporting will not be required for facilities with emissions well below the emission exemption thresholds (EET) or demonstrated onshore impacts well below ambient air quality standards and benchmarks (AAQSB). These facilities clearly are not causing or contributing to an exceedance of the NAAQS in any State, and the additional monitoring and reporting burdens are not warranted. Section 550.311 also requires reporting of any emissions source that would be classified as part of an operator's projected emissions if the operator's plan were resubmitted under the current regulations. In effect, this provision requires a reopening of the approval conditions for existing facilities and conceivably revises the approval conditions without any approval process. BOEM should not require collection of information from existing facilities to demonstrate compliance with rule requirements established after their plan was approved.

#### **(2) Are the estimates of the burden hours of the proposed collection reasonable?**

As stated previously, the collection of information required by the proposed rule would exponentially increase the data collection burden on offshore operators and is not considered reasonable considering the minimal impact OCS operations have on onshore air quality. Even BOEM's March 2016 Environmental Assessment<sup>3</sup> concludes "On the whole, however, OCS operations have a minimal impact on the air quality on shore (BOEM, 2015)". Based on BOEM's own admission, the OCS operations have minimal

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<sup>3</sup> <https://www.regulations.gov/#!documentDetail;D=BOEM-2013-0081-0003>

impact on the air quality on shore; therefore, no additional burden hours and non-hour costs are justified or warranted. This is further supported by a review of recent air dispersion model results for thirty-eight oil and gas facilities in the GOM conducted as part of permit applications and plans approved by the USEPA, BOEM, and the Fish and Wildlife Service between 2009 and 2015. The facilities analyzed included jackup rigs, semisubmersible units, drillships, and production platforms operating between 6 and 315 kilometers from shore. The modeling results demonstrate that none of the facility operations resulted in onshore ambient air design concentrations that exceeded the NAAQS when combined with ambient background concentrations. The results of this review will be discussed more fully in comments that will be provided by June 6, 2016.

Furthermore, in many instances, the provisions of the proposed regulations are not complete. Thus, it is impossible to accurately assess the true and real IC burden costs associated with the proposed regulations. An example of the referenced incompleteness is indicated by the following major reporting provision found in §550.311(b)(2) of the proposed rule: “BOEM will consider various alternatives for reporting of relevant emissions sources. One option would be to monitor only the following key pieces of equipment: [...]” Even with the list of equipment that BOEM proposes for this alternative, it is impossible to assess the cost of installing actual emissions measurement systems, such as predictive emissions monitoring systems (PEMS) (assuming that is what BOEM intends), at a facility because the agency has not addressed the specific need for installation of PEMS versus other means of determining emissions. Further, the rule fails to identify when emissions measurement systems would be required, which also prevents an assessment of the cost.

Even if the many omissions and incomplete provisions of the regulations are ignored, it is clear that the estimated 146,490 hours and \$3,455,000 in non-hour costs significantly underestimates the real IC burden hours and non-hour costs that will be incurred by the offshore operators as result of the proposed regulation. As documented in the attached marked text version of the Burden Table (See Appendix A), a more reasonable estimate of the hour burden and non-hour costs associated with the proposed regulations would be between 1,254,210 and 2,555,677 hours and \$352,948,333 and \$1,160,345,000 non-hour costs. Included in the table along with the reasonable estimated hours and non-hour costs is justification for the revised values. These realistic estimates of the hour burden and non-hour costs for the proposed regulations combined with the minimal impact OCS operations have on onshore air quality clearly indicate that the IC burden costs associated with the proposed regulations are not reasonable or necessary

### **(3) Do you have any suggestions that would enhance the quality, clarity, or usefulness of the information to be collected?**

We believe that the quality, clarity, and usefulness of the information to be collected would be enhanced if the requested information is limited to that which is necessary to demonstrate that a facility’s operations do not significantly affect onshore air quality. As written, the proposed rule requires the collection of expansive information that is separate from what is required to quantify projected emissions and associated onshore concentrations. The response to BOEM’s 4<sup>th</sup> ICR question below provides specific suggestions to reduce the IC Burden, thereby, enhancing the quality, clarity, or usefulness of the information to be collected.

**(4) Is there a way to minimize the IC burden on those who must respond, including the use of appropriate automated electronic, mechanical, or other forms of information technology?**

As noted previously, we believe the significantly increased IC burden of the proposed rule is not warranted nor necessary and should be significantly reduced through a comprehensive rewrite of the proposed rule. Nonetheless, the following discussions highlight opportunities to minimize the IC burden on both BOEM staff and the regulated community for the rule as proposed. *We are not conceding that we agree with the proposed rule requirements nor that the information addressed below is necessary for BOEM to perform its functions or useful for the agency in determining whether OCS activities significantly affect the air quality of a state.*

Air Quality Emissions Reporting Spreadsheet Revisions

On April 5, 2016, the BOEM released draft revised air emissions calculations workbooks that will be used to estimate air emissions for EPs (EP\_AQ.xls) and DOCDs (DOCD\_AQ.xls). Section 550.205 of the proposed rule identifies what air emissions information must be submitted with offshore plans, including the acceptable methods for determining the appropriate emissions factors to be used and how to report *facility emissions*, *attributed emissions* and *projected emissions* for offshore plans. The following documents discrepancies noted between the proposed rule and the Air Quality Emissions Reporting (AQR) workbooks as well as proposed recommendations to correct and streamline the IC burden costs for offshore operators.

- The workbooks as released for review and comment use USEPA AP-42 references as the primary source of emission factors and only reference industry studies or the BOEM 2005/2011 Gulfwide emissions inventory if no AP-42 factor is available. In contrast, the proposed rule lists emission factor references in a prioritized order, stating that a method may only be used if all other higher priority methods are not available. According to §550.205(b), AP-42 factors should only be used when factors that are based on source test results or that are vendor-guaranteed or provided by the manufacturer are not available. BOEM should update the spreadsheet in order to align with the rule requirements prior to publication of the final rule and allow for additional comment.
- The draft workbooks do not report estimated emissions for each of the emissions categories required under the proposed rule. For example, the SUMMARY page only presents a single maximum 12-month rolling total emissions value for each pollutant, which would represent the “projected emissions” for that pollutant. However, per §550.205(c)(2), the maximum 12-month rolling sum of emissions needs to be calculated from each facility and from each individual emissions source on or physically connected to each facility. The proposed rule also requires that the lessee report maximum rolling-12 month “attributed emissions” (during the same 12-month period as the facility maximum), which are not calculated by the workbooks. BOEM should update the workbooks to calculate all of the emissions categories or revise the regulation to clarify that only the emissions categories calculated by the workbooks are necessary.
- Similar to the 12-month sum of emissions discussed above, §550.205(c)(3), (d), and (e) require the estimation of the maximum projected peak hourly emissions. The draft workbooks calculate hourly emissions for individual sources based on estimated annual emissions. Therefore, those hourly

emissions essentially represent average hourly emissions and not maximum projected peak hourly emissions as required by the rule. Furthermore, the draft workbooks overestimate the total hourly emissions for each operating year (each EMISSIONS sheet), because they assume all sources will be operating at the same time rather than accounting for the temporal distribution of source operations. For example, if a support vessel operates from 1/1/16-5/31/16 with 40.8 lb/hr of PM<sub>10</sub> emissions and another source operates from 6/1/16-12/31/16 with 40.8 lb/hr of PM<sub>10</sub> emissions, the workbooks sum these values together yielding a maximum value of 81.6 lb/hr of PM<sub>10</sub> emissions instead of estimating 40.8 lb/hr of PM<sub>10</sub>. Similarly, a facility may have multiple power generating turbines with one turbine off-line acting as a spare. The AQR spreadsheet would currently estimate emissions as if all turbines were operating. BOEM should update the workbooks to calculate all of the emissions categories or revise the regulation to clarify that only the emissions categories calculated by the workbooks are necessary. BOEM should also ensure that the AQR workbooks do not overestimate maximum hourly emissions.

- The ability to allocate “attributed emissions” to multiple facilities is not currently functional in the AQR spreadsheet as described under §550.205(d)(5). It is evident that the inclusion of this functionality was started but not completed. BOEM should update the functionality of this portion of the spreadsheet prior to publication of the final rule and allow for additional comment.
- The draft workbooks currently do not account for all activities regulated under the proposed new regulations. Specifically, the workbooks do not account for decommissioning activities. BOEM should update the spreadsheet to account for typical emission sources associated with this activity prior to publication of the final rule and allow for additional comment.
- The draft workbooks currently do not account for including aircraft and onshore facility when predicted concentrations attributable to offshore sources are within 95% of a SIL. BOEM should update the spreadsheet to account for these emission sources prior to publication of the final rule and allow for additional comment.
- It is unclear how the workbooks should be modified to account for consolidation of multiple facilities, especially in regard to calculating maximum rolling 12-month values of complex total emissions. It would benefit BOEM as well as the offshore operators to revise the instructions to more clearly identify how to consolidate facilities within the workbooks and make required revisions to the workbooks to account for consolidation of multiple facilities under a single plan.
- Based on a review of the workbook instructions, BOEM must revise the instructions to more clearly follow the regulatory requirements and include additional instructions for proper use of the workbook. This would minimize the burden on the offshore operators as well as BOEM staff when reviewing completed workbooks. The revisions should be completed prior to publication of the final rule and include an opportunity for additional comment.
- §550.205(a) of the proposed regulation requires a substantial amount of information for emission sources that could be captured in the AQR spreadsheets. See discussion below under the Data Repositories/Clearinghouses section of this document for a list of the data required. It would reduce the IC burden on offshore operators if the AQR spreadsheets were revised to include all relevant data

requested by §550.205(a)(1-5) rather than having to provide some of the data in the spreadsheet and the remaining data in separate tables as part of a plan submittal.

- The draft AQR spreadsheets as released for comment have no mechanisms to include ERM (operational controls, equipment replacement, best available control technology (BACT), or emission credits) that will be employed or acquired as part of a proposed OCS operation. Updating the AQR spreadsheets to standardize and account for ERM would reduce the IC burden on offshore operators as well as minimize BOEM review time.
- The current draft versions of the AQR spreadsheets do not include a Q/D analysis for determination on whether or not Class I modeling analyses are required as part of a plan submittal. Incorporation of the Q/D analysis into the spreadsheets would reduce the IC burden on offshore operators as well as minimize BOEM review time.
- The proposed rule includes a new requirement for ROW, RUE and lease-term pipeline applications to include air emissions data with the application. However, BOEM has not provided a draft air emissions calculations workbook or similar tool for submitting this information. BOEM should provide a worksheet tool which incorporates as applicable the suggestions above for the EP and DPP/DOCD worksheets.

#### **Data Repositories/Clearinghouses**

BOEM should establish publically available data repositories/clearinghouses to benefit both the offshore operators as well as BOEM staff. For example, the development of data repositories/clearinghouses could significantly minimize the individual burden on the offshore operators in completing the “projected emissions” estimation efforts as required by §505.205(e) and the BACT reviews as outlined in §505.306 of the proposed rule. Furthermore, these data repositories/clearinghouses would minimize the plan review burden on BOEM staff required to verify emission estimates and to review and approve BACT analyses. The following outlines a few suggested opportunities to minimize IC burden costs through BOEM’s development of publically available data repositories/clearinghouses that could be accessed by offshore operators:

#### ***MODUS and Support Vessels***

There are a finite number of MODUS and support vessels utilized by the offshore operators. It would significantly reduce the IC burden on the regulated community if BOEM established an electronic data repository or clearinghouse that would verify and store the extensive amount of information required under §550.205(a)(1-5) for MODUS and support vessels, to be submitted to BOEM by support vessel and MODU operators. The information to be supplied by operators would be of sufficient quality that BOEM could verify the data. Individual users of the repository would not be required to verify the data on a case-by-case basis. This approach could be expanded to other operations as applicable. The following list summarizes the data requested under §550.205(a)(1-5) of the proposed regulation that could be housed in a data repository or clearinghouse:

- For each emission source - Equipment type and number, manufacturer, make and model, location, purpose, and physical characteristics;

- For every engine on each facility, including non-road engines, marine propulsion engines, or marine auxiliary engines - engine manufacturer, engine type, and engine identification, and the maximum rated capacity of the engine given in kilowatts;
- For engines on MSCs, including marine propulsion and marine auxiliary engines - engine displacement and maximum speed in revolutions per minute (rpm);
- For offshore vehicles - Equipment type and number, manufacturer, make and model, location, purpose, and physical characteristics; and
- For any emissions source not described above - all information needed to calculate and verify the associated emissions, such as volumes vented, volumes flared, size of tank, and number of components.

#### *Best Available Control Technology*

Completing a thorough and complete BACT analysis requires extensive time and effort on the part of the offshore operators and reviewing those analyses requires considerable time of BOEM staff. Given the consistency in the types of emission sources associated with OCS operations and in the available technically and economically viable controls options, it would significantly reduce the IC burden on the offshore operators during plan preparation if BOEM would establish and update an approved presumptive BACT data repository or clearinghouse that would fulfil the requirements of §505.306 of the proposed rule. Several states have established similar guidance documents utilized by the regulated community when performing “state” BACT analyses. For example, the Texas Commission on Environmental Quality (TCEQ) provides extensive guidance on what is considered to be “current” state BACT for a large variety of industries and emission sources. This TCEQ information is available for review at [https://www.tceq.texas.gov/permitting/air/nav/bact\\_index.html](https://www.tceq.texas.gov/permitting/air/nav/bact_index.html). OCS operators would be able to apply the presumptive BACT as part of plan submittals without having to provide the detailed and time consuming justification typically required in a BACT analysis. However, OCS operators would have the option to prepare an emission source-specific BACT analysis.

#### *Emissions Credits*

Section 550.307(e) of the proposed regulation allows for the use of emissions credits as an alternative to ERMs. In concept, this emissions credit provision provides significant benefits to the OCS operators. However, because BOEM has not established any specific emission credit regulatory requirements and states do not generally have banking systems for areas designated as attainment, the usefulness of the emissions credit program is significantly limited and would be burdensome to implement solely on a case-by-case basis. At a minimum, BOEM’s emissions credit regulatory requirements would need to outline the procedures for banking emission credits, the general criteria for making emissions credits creditable, the lifetime of emissions credits, the calculation methodology for estimating emissions credits, emissions credit reporting and recordkeeping requirements, and the schedule for submitting emissions credit applications. Additionally, BOEM should develop an OCS banking database that would house and maintain records of available OCS-generated emissions credits, as well as onshore-generated emissions credits. By implementing a regulatory program for emissions credits and establishing an OCS banking database, BOEM would significantly streamline the implementation of an emissions credit program. Furthermore, the implementation of these suggestions would minimize the additional IC burden associated with the recordkeeping and reporting requirements for emissions credits as outlined in Section

550.309(e) of the proposed regulations. It should be noted that, with no such framework in place, the cost-savings for the use of ERCs assumed in BOEM's cost analysis is effectively non-existent.

#### OCS Emission Inventory Electronic Submittal

Section 505.187 of the proposed rule will codify the current Gulf-Wide Offshore Activities Data System (GOADS) OCS emissions inventory procedures. Additionally, §550.205(b) of the proposed rule requires the regulated community to utilize a scripted and prioritized emissions estimation basis in estimating emissions for sources covered in each plan. In an effort to streamline the OCS emissions inventory estimating methodology and to ensure a more accurate OCS emission inventory, BOEM should utilize the emissions estimation basis provided in the AQR spreadsheets to estimate actual emissions for OCS emission sources.

#### Recordkeeping Retention

Section 550.187 requires offshore operators to collect and maintain information regarding all air pollutant emissions from all emissions sources associated with their operations for a period of no less than 10 years.

There is an IC burden for the maintenance of records for 10 years which is greater than typical retention requirements for facilities under USEPA or state agency jurisdiction. There is also a "non-hour" cost associated with this requirement. Maintenance of electronic records is not free and given the substantial increase in recordkeeping requirements for each plan, this burden could be substantial. The IC burden could be reduced if the BOEM followed typical retention policies for other state and federal agencies, which typically require facilities to retain information for periods ranging between two and five years.

**(5) Estimate the total annual reporting and recordkeeping non-hour cost burden resulting from the collection of information, and we solicit your comments on this item. For reporting and recordkeeping only, your response should split the cost estimate into two components: (1) Total capital and startup cost component; and, (2) annual operation, maintenance, and purchase of services component. Your estimates should consider the costs to generate, maintain, and disclose or provide the information. You should describe the methods you use to estimate major cost factors, including system and technology acquisition, expected useful life of capital equipment, discount rate(s), and the period over which you incur costs. Generally, your estimates should not include equipment or services purchased (1) before October 1, 1995; (2) to comply with requirements not associated with the IC; (3) for reasons other than to provide information or keep records for the Government; or (4) as part of customary and usual business or private practices.**

We have estimated non-hour costs as part of the detailed IC Burden Cost Table (Appendix A). BOEM has indicated that they expect that facilities will use PEMS to comply with the monitoring requirements in the proposed rule. Capital and annual operating and maintenance costs for PEMS required to be installed as part of the proposed rule are included in comments to New 311(c).

Section 550.312(b) of the proposed rule requires the collection of hours of operation at each percent of capacity for each emission source, as well as other non-specified data for sources that would not otherwise be accounted for by fuel consumption logs. This requirement would require the installation of

monitoring equipment and data loggers to allow the monitoring of hours of operation at each percent capacity for each engine aboard all support vessels, MODUS, and platforms in use by offshore operators. Based on the number of engines identified in Tables 20, 21, and 22 of the Regulatory Impact Analysis, there are approximately 6,750 engines on board vessels in GOM of which the vast majority are not equipped to measure and record hours of operation at each percent load. The costs to install and maintain such equipment would be significant and was not accounted for in BOEM's IC Burden Cost Table. We have provided information on the capital costs associated with installation of fuel meters and associated data loggers in comments in New 312(b).



## **Appendix A**

### **Burden Table with Comments**

Citation 30 CFR part 550 Subpart A and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Per the requirements in this rule, you must submit information in an electronically readable format unless otherwise directed by BOEM. If you transmit the information electronically, you must use a delivery medium or transmission method authorized by BOEM.					
<b>Information and Reporting Requirements</b>					
141(d)	Request approval to use new or alternative procedures; <i>temporarily suspend equipment or implement operational control(s)</i> ; submit required information.	Burdens currently covered under 30 CFR part 550, subpart A (1010-0114).		0	
160(f)	<i>Submit all air quality documentation/records pertaining to RUE applications; obtain approvals.</i>	<del>44</del> 60-100	26 applications	<del>286</del> 1,560-2,600	Estimated hours to complete air emissions evaluations for an RUE is expected to be similar to the same amount of hours as an EP, DOCD or DPP.
160(f)	<i>Request waiver of 10-year periodic review for RUEs from Regional Supervisor.</i>	.50	2	1	
<b>New 187*</b>	Entities in all affected OCS Regions collect, maintain, retain for 10 yrs., and all air emissions-related data for each source that generates air pollutants on the OCS.	<del>43+</del> 100	<b>2,547 submissions</b>	<del>112,025</del> 254,700	The estimated total number of hours per submission includes operator burden and 3 <sup>rd</sup> party burden to maintain and provide the information.
<b>New 187(b)*</b>	Request third-party submission of required air emissions data to BOEM or BOEM-designated agent.	<del>2</del> 100	<b>200 requests</b>	<del>400</del> 20,000	There was not sufficient time to collect the estimated hour burden from 3rd party contractors. For the purposes of this submittal it was assumed that the hour burden for 3rd party contractors would be equivalent to that of the operators.
<b>Total for Subpart A</b>			<b>2,775 Responses</b>	<del>112,712 Hours</del> <b>276,261- 277,301 Hours</b>	

Citation 30 CFR 550 Subpart B and Related NTL(s)	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Contents of Exploration Plans					
200-206; 209; 215(e); 231(b); 232(d); 234; 235; 281(d)(3); 283; 284; 285; NTL 2010 N-06	Submit amended, modified, revised, supplemental, <i>or updated</i> EP, or resubmit disapproved EP; withdraw an EP.	Burdens currently covered under 30 CFR 550, subpart B (1010-0151).		0	
New 205	Collect, maintain & submit all air quality & modeling documentation/records (including but not limited to, emissions sources, factors, reduction measures, attributed and projected emissions, distance calculations, etc.); additional documentation as requested/required by BOEM; request departures; obtain approvals.	<del>20</del> 100-200	110 changed plans	<del>2,200</del> 11,000-22,000	Based on industry experience, this is an estimate of the burden to collect data (e.g., manufacturer, make and model) for each emission source, identify the appropriate emission factor for each emission source, estimate emissions for each emission source, and prepare plans, as well as time to identify the maximum projected emissions for each criteria and major precursor air pollutant by calculating the annual rate (for each calendar year), the maximum 12-month rolling sum, and the maximum peak hourly rate as required by 550.205(e). This estimate does not include modeling analyses and ERM/BACT evaluations.  Note that the RIA estimates the annual number of changed plans as 110. It is possible that the number of plan re-submittals will increase significantly due to new section 550.280(a) that prohibits use or substitution of any emission source not identified in the plan.
200-206; 209; 211 through 228; NTL 2010-N-06	Submit EP and all required information (including, but not limited to, submissions required by BOEM <i>forms 0137, 0138, 0142</i> ; withdrawals; lease stipulations; reports; H <sub>2</sub> S; Geological and Geophysical (G&G); etc.); provide notifications.	Burdens currently covered under 30 CFR part 550, subpart B (1010-0151).		0	

Citation 30 CFR 550 Subpart B and Related NTL(s)	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
New 205	Submit expanded air emissions & compliance data for EPs whose air emissions are above the exemption threshold. <i>Burdens for analysis/modeling covered under 30 CFR part 550, subpart C (§§ 550.303-550.307).</i>	<del>25</del> 100	<del>20 plans</del> 110 plans	<del>500</del> 11,000	The proposed revision to the burden associated with this line item represents the additional burden required for a plan that exceeds exemption thresholds (i.e. over and above a “base plan” that does not exceed thresholds).
	Collect, maintain & submit all air quality & modeling documentation/records (including but not limited to, emissions sources, factors, reduction measures, attributed and projected emissions, distance calculations, etc.); additional documentation as requested/required by BOEM; request departures; obtain approvals.				It is uncertain if the proposed requirements will increase the number of plans that exceed exemption thresholds because new exemption thresholds will not be completed until 2020, the change in accounting for support vessel emissions will increase facility totals, and consolidating facilities will likely cause more plans to exceed thresholds. Therefore, the number of plans affected may be closer to the estimated total number of plans.  Under the current regulatory framework, operators may self-mitigate their air emissions such that the plan emissions remain under the EET. It is not clear if the proposed rule will allow such self-mitigation and as such, more plans may exceed the EET and would be required to perform additional analysis (e.g., modeling, ERM, etc.)  Note that the RIA estimates the annual number of changed plans as 110. It is possible that the number of plan re-submittals will increase significantly due to new section 550.280(a) that prohibits use or substitution of any emission source not identified in the plan.
	Alaska Region submits air quality information as required in EP.	200	2 Alaska plans	400	
Subtotal			<del>132 Responses</del> 222 Responses	<del>3,100 Hours</del> 22,400-33,400 Hours	

Citation 30 CFR 550 Subpart B and Related NTL(s)	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
<b>Contents of DPP and DOCD</b>					
Current 200-206; 209; 266(b); 267(d); 272(a); 273; 281(d); 283(a-b); 284; 285(a-b); NTL 2010 N-06	Submit amended, modified, revised, updated, or supplemental DPP or DOCD, or resubmit disapproved DPP or DOCD.	Burdens currently covered under 30 CFR part 550, subpart B (1010-0151).		0	
<b>New 205</b>	Collect, maintain & submit all air quality & modeling documentation/records (including but not limited to, emissions sources, factors, reduction measures, attributed and projected emissions, distance calculations, etc.); additional documentation as requested/required by BOEM; request departures; obtain approvals.	<del>20</del> 200-400	<b>155 changed plans</b>	<del>3,100</del> 31,000-62,000	Based on industry experience, this is an estimate of the burden to collect data (e.g., manufacturer,, make and model) for each emission source, identify the appropriate emission factor for each emission source,, estimate emissions for each emission source, and prepare the air quality portion of the plans. This estimate does not include modeling analyses and ERM/BACT evaluations, but does include burdens for collecting emissions information for installation vessels, additional hours for determining if consolidation of facilities is required, and determining 12-month rolling and peak hourly rates.  Note that the RIA estimates the annual number of changed plans as 155. It is possible that the number of plan re-submittals will increase significantly due to new section 550.280(a) that prohibits use or substitution of any emission source not identified in the plan.
200-206; 209; 241 thru 262; NTL 2010 N-06, and others	Submit DPP/DOCD and accompanying/supporting information (including, but not limited to, submissions required by BOEM <i>Forms 0137, 0139, 0142</i> used in GOM; lease stipulations; withdrawals, etc.); provide notifications.	Burdens currently covered under 30 CFR part 550, subpart B (1010-0151).		0	
<b>New 205</b>	Submit expanded air emissions & compliance data for DPPs/DOCDs whose air emissions are above the exemption threshold. <i>Burdens for analysis/modeling</i>	<del>25</del> 100	<del>50 plans</del> 155 plans	<del>1,250</del> 15,500	The proposed revision to the burden associated with this line item represents the additional burden required for a plan that exceeds exemption thresholds (i.e. over and above a “base plan” that does not exceed

Citation 30 CFR 550 Subpart B and Related NTL(s)	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
	<i>covered under 30 CFR part 550, subpart C (§§ 550.303-550.307).</i>				thresholds).
	Collect, maintain & submit all air quality & modeling documentation/records (including but not limited to, emissions sources, factors, reduction measures, attributed and projected emissions, distance calculations, etc.); additional documentation as requested/required by BOEM; request departures; obtain approvals.				<p>It is uncertain if the proposed requirements will increase the number of plans that exceed exemption thresholds because new exemption thresholds will not be completed until 2020, the change in accounting for support vessel emissions will increase facility totals, and consolidating facilities will likely cause more plans to exceed thresholds. Therefore, the number of plans affected may be closer to the estimated total number of plans.</p> <p>Under the current regulatory framework, operators may self-mitigate their air emissions such that the plan emissions remain under the EET. It is not clear if the proposed rule will allow such self-mitigation and as such, more plans may exceed the EET and would be required to perform additional analysis (e.g., modeling, ERM, etc.)</p> <p>Note that the RIA estimates the annual number of changed plans as 155. It is possible that the number of plan re-submittals will increase significantly due to new section 550.280(a) that prohibits use or substitution of any emission source not identified in the plan.</p>
	Alaska Region submits air quality information as required in DPP/DOCD.	400	2 Alaska plans	800	

Citation 30 CFR 550 Subpart B and Related NTL(s)	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
284	Submit updated information on activities conducted under approved EPP/DPP/DOCD/RUE.	4 200-400	56 updates	224 11,200-22,400	550.284 allows the Regional Supervisor to periodically review and require submittal of updated information. The frequency and extent of this review may be based on many variables including changes in available information, changes to applicable laws or regulations, and changes to activities described in the plan. As a result, it is possible that entire plans may need to be revised and submitted. Therefore, the burden would be similar to developing an entirely new plan.
Subtotal			263 Responses 368 Responses	5,374 Hours 58,500-100,700 Hours	
Total Subpart B			395 Responses 590 Responses	8,474 Hours 80,900-134,100 Hours	

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
New 303-307	Conduct required analysis & modeling for expanded air emissions for those criteria & major precursor air pollutants that exceed the threshold & compliance requirements. Submit modeling reports.	<del>38</del> 80-200	<del>87 plans</del> 171-345	<del>3,306</del> 13,680-69,000	The Regulatory Impact Analysis includes estimates of 345 plans requiring modeling for air pollutants. The revised estimates are based on 50-100% of all plans requiring modeling analysis. The range of hours is wide because there is wide uncertainty on the mechanisms to prepare modeling (changing dispersion models), new modeling requirements (AAI modeling), and changing compliance points (receptors in non-attainment areas and on the SSB).
		\$10,000 x <del>20</del> 171-345 instances for incremental modeling/analysis cost of mobile sources = \$200,000 \$1,710,000-3,450,000		<del>\$1,000,000</del> \$11,970,000-65,500,000	Revised estimates are aligned with the number of plans that may potentially require modeling under the proposed requirements. All plans will include mobile sources.  NOTE: photo-chemical modeling costs not included
		\$20,000 - \$100,000 x <del>40</del> 171-345 instances for additional plans that will now require modeling/analysis = <del>\$800,000</del> \$3,420,000-34,500,000			Revised estimates are aligned with the number of plans that may potentially require modeling under the proposed requirements. The range of hours is wide because there is wide uncertainty on the mechanisms to prepare modeling (changing dispersion models), new modeling requirements (AAI modeling), and changing compliance points (receptors in non-attainment areas and on the SSB).
		<del>\$50,000</del> \$40,000-80,000 x <del>0</del> 171-345 instances for plans now requiring photochemical modeling/analysis = no costs till 2020 \$6,840,000-27,600,000			The number of instances where photochemical modeling may be required will likely be driven by exceedances of NOx thresholds as NOx is considered an ozone precursor pollutant. Although difficult to estimate how many NOx threshold exceedances will occur, an assigned value of “0 instances” is inappropriate. Due to the significant changes in the proposed rule, exceedances of NOx thresholds will increase and may impact 50-100% of all plans. In addition, photochemical modeling costs are expected to range from \$40,000-80,000 per model.



Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
<b>Air Quality Analyses in Plans</b>					
<b>New 303(d)</b>	Report/consolidate air emissions data from multiple facilities if required.	<b>20</b>	<del>15 consolidations</del> 282	<del>300</del> 5,640	Revised estimates are aligned with the number of plans that may potentially require consolidation under the proposed new requirements. This is estimated to be 80% of DOCDs and 50% of EPs. 20 hours appears to be an appropriate estimate to determine if facilities require consolidation but does not include any additional modeling, ERM/BACT evaluations, nor plan resubmissions should the consolidation result in an exceedance of exemption thresholds.
<b>New 303(g); 310(c); 312(b)</b>	Submit revised air emissions plans, as required. Request exceptions; obtain approvals.	Burdens currently covered under 30 CFR part 550, subpart B (1010-0151).		0	
<b>New 303(h)</b>	Provide additional information/analysis as required for plan approval.	<b>10</b>	<b>300 submissions</b>	<b>3,000</b>	It is impossible to estimate what types of additional information will be required by BOEM and the FLMs under 303(h), as well as how often. The proposed rule language is ambiguous.
<b>New 304</b>	Obtain approval of all modeling protocols & meteorological data sets. Provide BOEM with copies of/access to protocols & all required information.	<del>5</del> 5 hours for operators to review modeling protocols but in addition another \$5,000-20,000- per plan for a consultant to prepare the protocols.	<del>4 submissions</del> 171-345	<del>20</del> 855-1,725 hours of burden to the operator and an additional \$855,000-6,900,000 for developing modeling protocols	5 hours is a reasonable estimate for operators to review modeling protocols, but this burden estimate does not consider a significant cost for air emissions consultants to prepare modeling protocols. In addition, the revised number of submissions is aligned with the estimated number of plans that may potentially require modeling under the proposed new requirements.

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
Subtotal			406 Responses 924-1,272 Responses	6,626 Hours 23,175-79,365 Hours	
			\$1,000,000 Non-hour Costs \$12,825,000-\$72,400,000 Non-Hour Costs		
Emission Reduction Measures—BACT					
New 306; 307; 308(a); 309(a), (c), (d)	Document results of ERM analysis. Provide description of BACT proposal/data based on required analyses, associated impacts and costs; demonstrating compliance; provide additional information as required; obtain approval; Submit ECE data from manufacture.	50-500	12 submissions 171-345	600 8,550-172,500	ERM and BACT analysis are highly case-by-case specific. 50 hours represents a reasonable burden estimate for a relatively simple case, however, more complex cases (e.g. for consolidated facilities) likely will require more analysis. In addition, revised estimates are aligned with the number of plans that may potentially require ERM/BACT review under the proposed new requirements (50-100% of the total number of plans). This hourly burden is estimated to equate to a cost burden of \$10,000-\$75,000 per ERM/BACT evaluation because it is expected 3 <sup>rd</sup> party consultants will be utilized to conduct such analyses.
New 307(a); 313(a)	Request VOCs or NO <sub>x</sub> waiver for ERM.	1 Unknown	1 Unknown	1 Unknown	The requirements for VOC or NO <sub>x</sub> waivers described in the proposed rule are vague and unclear. Based on the proposed rule text it is impossible to estimate the associated burden.
New 308(b); 309(a)	Request reconsideration of BOEM emissions determination; submit supporting information.	Not considered IC as defined in 5 CFR 1320.4(a)(2).		0	
New 309(b)	Immediately notify BOEM if ERM become disabled or unavailable; request extension for ERM (NTE 90 days).	2 Unknown	2 notifications Unknown	4 Unknown	It is extremely difficult to estimate the number of times an ERM may become disabled. The proposed rule will likely significantly increase the number of ERMs required and operators will establish compliance programs to ensure they are implemented and maintained. However, experience with the reliability of particular ERMs is unknown for offshore operations. In addition, the proposed rule does not provide any information regarding the consequences of exceeding a

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
					90-day extension. It is unclear what the potential impact may be.
New 309(d)	Collect and maintain monthly logs of relevant meter/monitoring equipment readings.	<del>12/yr.</del> Unknown	<del>6</del> Unknown	<del>72</del> Unknown	550.309(d) references the requirements for monitoring contained in 550.311. Therefore, the burden associated with 309(d) is included in the burden described for 550.311 below.
New 309(e)	Notify appropriate State air quality control jurisdiction of proposal to acquire emissions offsets; revise State Implementation Plan to include new info; submit to BOEM.	<del>1</del> 2-4	1 notification	<del>1</del> 2-4	The mechanisms for obtaining and using emissions offsets are vague and unclear in the proposed rule; raising numerous questions on the associated impact. The lack of a defined program for utilizing emissions offsets on the OCS leads to the conclusion that offsets will not likely be a widely used ERM. In addition, this burden estimate does not include any impacts to the onshore facilities that may be impacted. For example, if an onshore facility has offsets available for a project on the OCS, that onshore facility will also be burdened with implementing the emission reduction, documenting the offset, and modifying any of its associated permits. The use of emissions offsets is a highly complex process that involves requirements well beyond a notification to a State air quality control body.
New 310(b)	Request a departure from compliance with the new or revised AAQSB.	<del>2</del> 20-200	<del>2 requests</del> 10 plans	<del>4</del> 200-2,000	This estimate is highly dependent upon how often the AAQSB is revised and the scope of any future revisions. In addition, the number of affected plans will be dependent upon the timing of any future AAQSB revisions.
New 310(c)	Resubmit plans for air quality review every 10 years w/ required information.	There will be no burden until 2020		0	A significant number of plans (possibly) all plans will require air quality update(s) prior to the 10 year timeframe because of the significant change included in the proposed rule.
Subtotal			24 Responses 182-356 Responses	682 Hours 8,752-174,504 Hours	

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
Monitoring & Reporting					
New 311(a), (b), (f)	Report/demonstrate actual emissions data/other information to verify compliance with previous approved plan on BOEM approved schedule.	<del>16</del> 24	<del>12 sub-missions</del> (2,573-3,430) / 3 = 858- 1,143 facilities	<del>192</del> 20,592-27,432	<p>The hours required to report actual emissions data is estimated as 2 hours per month.</p> <p>The number of potentially affected facilities is based upon the number of platforms in the Gulf of Mexico (2,480) + an estimated number of MODUs (50) + plus an estimated number of vessels (900).</p> <p>It is assumed that all required compliance demonstrations would be required within the first 3 years after the rule is finalized.</p> <p>Under the proposed rule, potentially 75-100% of those total facilities could require some type of compliance demonstration.</p>
New 311(c)	Measure actual emissions using Predictive Emission Monitoring System (PEMS).	<del>36</del> 445-465	<del>30 engines</del> (2,573-3,430) / 3 = 858- 1,143 facilities	<del>1,080</del> 381,810-531,495	<p>The hours required to install and operate a PEMS are estimated as 80-100 hours for engineering and installation and an additional 1 hour per day per system for operation and maintenance.</p> <p>The number of potentially affected facilities is based upon the number of platforms in the Gulf of Mexico (2,480) + an estimated number of MODUs (50) + plus an estimated number of vessels (900).</p> <p>It is assumed that all required PEMS systems would be installed within the first 3 years after the rule is finalized.</p> <p>Under the proposed rule, potentially 75-100% of those total facilities could require a PEMS. Using an estimate for a number of impacted engines is not appropriate because multiple engines on a single facility could be monitored with a single PEMS. However, in some cases individual engines may require a dedicated PEMS</p>

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
					and these estimates would be potentially higher than what is included in this line item.
		<del>\$26,000 x 30 engines = 780,000 annually</del> [(\$250,000-\$750,000 installation costs + \$10,000 per year for maintenance and calibration) x (2,573-3,430 facilities)] / 3 = \$222,933,333-868,933,333			Capital costs for a PEMS are estimated as \$250,000-\$750,000 per system.  Annual operating and maintenance costs are estimated at \$10,000 per year.  It is assumed that all required PEMS systems would be installed within the first 3 years after the rule is finalized.  Note that these costs estimates are highly variable and each facility will differ based on the size of the system, the number of engines being monitored, facility space and weight constraints, and a host of additional variables.
New 311(c)	Report data/information regarding exceedance of projected emissions to BOEM.	<del>16</del> 50-100	<del>5</del> 241-321	<del>80</del> 12,050-32,100	50-100 hours of burden is estimated for reporting an exceedance of projected emissions because root cause analysis and investigation would be required to determine what caused the exceedance, as well as determining corrective actions.  It is assumed that 10% of facilities that have a PEMS will experience an emission exceedance. Although this is uncertain because the proposed rule does not specifically define what constitutes an exceedance (i.e. what types of events will require reporting), and the lack of experience by the industry with PEMS in an offshore environment.
New 312(b), (d);	Submit additional information as required to BOEM.	<del>2</del> Unknown	<del>10</del> submissions Unknown	<del>20</del> Unknown	It is impossible to estimate what types of additional information will be required by BOEM, as well as how often. The proposed rule language is ambiguous.

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
New 312(a)	Conduct/report stack testing results every 3 yrs.	<del>48</del> 200-360	<del>67 tests</del> 858-1,143 facilities	<del>3,216</del> 171,600-411,480	<p>The hours required to design and plan a stack test are estimated as 80-120 hours.</p> <p>Actual stack tests are estimated to require 120-240 hours depending upon the pollutants being tested.</p> <p>The number of potentially affected facilities is the same as the estimated number of PEMS since each PEMS will require a stack test at initial installation. As above, this is based upon the number of platforms in the Gulf of Mexico (2,480) + an estimated number of MODUs (50) + plus an estimated number of vessels (900).</p> <p>It is assumed that all required PEMS systems would be installed within the first 3 years after the rule is finalized.</p>

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
			<p><del>\$25,000 x 67 stack tests = \$1,675,000 annually</del></p> <p>A. <u>Modification of equipment to enable stack testing</u> = \$15,000 per stack</p> <p>B. <u>Mobilization Costs &amp; One Engine test with 3 test runs per load and 3 engine loads (9 test runs per engine):</u></p> <p>Gaseous Criteria Pollutants Only = \$120,000 Particulate Matter Additional Cost = \$25,000</p> <p>C. <u>Each Additional Engine During the Same Mobilization:</u></p> <p>Gaseous Criteria Pollutants Only = \$15,000 Particulate Matter Additional Cost = \$20,000</p> <p>Detailed Engine Count Data from Tables 20, 21, &amp; 22 of the RIA with estimated stack testing costs presented below.</p> <p>Assume that all stack testing is completed within the first 3 years after the rule is promulgated:</p> <p><b><u>First Year Stack Testing Cost Estimate, including modification of equipment, mobilization and testing:</u></b>  <b>\$36,950,000 Gaseous Pollutants Only.</b>  <b>\$53,681,667 With Particulate Matter Pollutants</b></p>		<p>The cost of stack testing is not limited to the cost of the test operations alone as shown in this line item. Modifications to stacks and emissions sources will be required to enable stack testing to be performed. These modifications include installation of ports for testing, scaffolding and construction to access the stacks for port installation and testing, and in some cases adding flume/lengths to stacks to allow testing.</p> <p>The estimates provided here include these additional necessary costs leading to a significantly higher estimate of stack testing costs.</p> <p>The number of engines requiring testing is based on the engine counts shown in the associated RIA (Tables 20, 21 and 22).</p> <p>In addition, normal production operations may have to be curtailed or shut-in to execute the testing which will result in deferred production, or unproductive rig time (these costs are not addressed here).</p>

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
New 312(b)	Retain monthly fuel information for each source on determined schedule for 10 yrs.	<del>48</del> 300-600	<del>265</del> 858-1,143	<del>12,720</del> 257,400-685,800	<p>48 hours is a reasonable burden estimate if fuel usage is tracked at the facility level (total fuel consumed). However, the proposed rule language seems to indicate that fuel tracking will be required for each engine or other emission source. Therefore, a more appropriate estimate would be 300-600 hours for fuel tracking.</p> <p>The number of potentially affected facilities is the same as the estimated number of PEMS. As above, this is based upon the number of platforms in the Gulf of Mexico (2,480) + an estimated number of MODUs (50) + plus an estimated number of vessels (900). However, this is a conservative estimate since many facilities will have multiple engines while others may not have any engines. An estimate of the total number of engines in the GOM would require significantly more time to estimate than was available during the comment period.</p>
		<p>Installation of fuel flow meters on OSV, MODUS, and Platform engines: \$67,500,000 to \$101,250,000</p> <p>Note these costs do not include non-hour costs required to install meters to collect hours of operation at each percent of capacity for each emission source, as well as other non-specified data for sources that would not otherwise be accounted for by fuel consumption logs. The costs for these items are significant.</p>			<p>In addition to the tracking of monthly fuel usage records Section 312(b) will also require the monitoring each engines individual fuel usage. In order to accomplish individual engine fuel meters will be required to be installed on each engine. According to a major marine engine manufacture, the estimated capital costs to install a fuel flow monitor and data logger system would range from \$10,000 to \$15,000 per engine. Offshore Service Vessels (MSCs) have at least two to as many as five main engines plus at least two generators engines. Based on data provided in Table 20 of BOEM's Regulatory Impact Analysis, there are close to 2,200 engines onboard OSVs utilized in the GOM. If fuel meters were installed on each engine onboard the fleet of OSVs servicing the GOM, the additional capital costs would be \$22,000,000 to \$33,000,000 over the cost outlined in Appendix A. This also does not include the costs to install fuel meters on the MODUS and</p>



Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
					<p>Platform engines, which include an additional 4,500 engines as estimated in Tables 21 and 22 of the RIA. Assuming the same estimated capital costs for installing fuel meters on OSVs, the total costs to install fuel meters on all MODUS, Platform and OSV engines (6,750) be an additional \$67,500,000 to \$101,250,000.</p> <p>In addition, to equipment required to monitor fuel usage on each engine, Section 312(b) of the proposed rule requires the collection of hours of operation at each percent of capacity for each emission source, as well as other non-specified data for sources that would not otherwise be accounted for by fuel consumption logs. Do to the limited time available to respond to this IC Burden request cost data for this equipment was not provided in this response; however, it is believed that the actual costs would be significant.</p>
New 312(b)	Submit fuel logs or collect facility and equipment usage information for MSCs to BOEM.	<del>8</del> 20-200	<del>80</del> 900	<del>640</del> 18,000-180,000	The low end of the range of monitoring fuel logs and submitting information is based upon monitoring total fuel consumption per vessel; the high end of the range is based upon monitoring fuel for each engine on each vessel.
New 312(c), (d)	Collect/report meteorological data in a manner described by BOEM or from agreed location; other information as required.	<del>4</del> 50-100	<del>3</del> (1,898-2,530)  1,898*10% / 3 = 63  2,530*25% / 3 = 211  = 63-211 facilities	<del>12</del> 3,150-21,100	<p>50-100 hours of burden is estimated for collecting and reporting meteorological data because the proposed rule is ambiguous and unclear on what types of data will be required.</p> <p>The number of potentially affected facilities is based upon the number of platforms in the Gulf of Mexico (2,480) + an estimated number of MODUs (50).</p> <p>It is assumed that all required meteorological stations would be required within the first 3 years after the rule is finalized.</p>

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
			Additional costs for installation of \$200,000-300,000 per station.  (\$200,000-\$300,000) x (63-211) = \$12,600,000-63,300,000		<p>Under the proposed rule, potentially 10-25% of those total facilities could require some type of station.</p> <p>In addition to the hourly burden, capital costs to install a meteorological station that measures the following parameters is \$200,000-300,000.</p> <ul style="list-style-type: none"> <li>• Wind speed/direction</li> <li>• WD standard deviation</li> <li>• Vertical wind speed</li> <li>• 2M temp</li> <li>• 10m temp</li> <li>• Delta T</li> <li>• RH</li> <li>• Solar radiation</li> <li>• Barometric pressure</li> <li>• Precipitation</li> <li>• Fully self-contained system with solar power and cellular or satellite communications</li> </ul>
New 313(b)	Submit new air quality plan for short-term facility converted to a long-term facility.	<del>10</del> 130-250	2 submissions	<del>20</del> 260-500	<p>50 hours is estimated for operator staff time for preparing and reviewing plans.</p> <p>80-200 hours for modeling evaluations.</p> <p>\$10,000-75,000 per plan for ERM/BACT analysis.</p> <p>\$5,000-20,000 per plan for a consultant to prepare modeling protocols.</p> <p>\$20,000-100,000 per plan for a consultant to prepare modeling.</p> <p>Additional total costs = \$70,000-390,000 based on above.</p>

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
New 313(b)	Request exception due to adverse weather conditions or circumstances beyond your control.	<del>50</del> Unknown	4 Unknown	2 Unknown	It is impossible to estimate what types adverse weather conditions will trigger exception reporting, as well as how often. The proposed rule language is ambiguous.
New 314	Provide pollution data to State, Indian Tribe, or federal agency requests submit additional info for determination to any cause/contribution to NAAQS violation within 120 days or a longer time specified by BOEM.	2 130-250	2 requests	4 260-500	50 hours is estimated for operator staff time for preparing and reviewing plans. This burden estimate includes additional modeling, analysis and data collection.  80-200 hours for modeling evaluations.  \$10,000-75,000 per plan for ERM/BACT analysis.  \$5,000-20,000 per plan for a consultant to prepare modeling protocols.  \$20,000-100,000 per plan for a consultant to prepare modeling  Additional total costs = \$70,000-390,000 based on above.
Subtotal			480 Responses 4,640-6,008 Responses	17,986 Hours 865,122-1,890,407 Hours	
			\$2,455,000 Non-hour Costs \$340,123,333-\$1,087,945,000 Non-hour Costs		
General					
New 300-314	General departure and alternative compliance/requests not specifically covered elsewhere in subpart C.	2 Unknown	5 requests Unknown	10 Unknown	It is unclear what this item is referring to in the proposed rule. No estimate can be provided.
Subtotal			5 Responses	10 Hours	
Total for Subpart C			915 Responses 5,746-7,636 Responses	25,304 Hours 897,049-2,144,276 Hours	

Citation 30 CFR 550 Subpart C and Related NTLs	Reporting and Recordkeeping Requirement**	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
Air Quality Analyses in Plans					
			<del>\$ 3,455,000 Non-Hour Costs</del> <b>\$352,948,333-\$1,160,345,000 Non-Hour Costs</b>		

Citation 30 CFR 550 Subpart J and Related	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Annual Burden Hours	Comments & Additional Information
1012	Collect, maintain & submit all air quality documentation/records pertaining to pipeline ROW applications; obtain approvals.	Burden covered under 30 CFR part 550, subparts B and C.		0 200-400	Estimated hours to complete air emissions evaluations for a ROW is expected to be similar to the same amount of hours as an EP, DOCD or DPP.
Total Burden			<del>4,085 Responses</del> <b>9,111-11,001 Responses</b>	<del>146,490 Hours</del> <b>1,254,210-2,555,677 Hours</b>	
			<del>\$3,455,000 Non-Hour Costs</del> <b>\$352,948,333-\$1,160,345,000 Non-Hour Costs</b>		