







OFFSHORE OPERATORS COMMITTEE

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#### RE: Joint Trade Association Comments Gulf of Mexico Outer Continental Shelf Lease Sale Draft Supplemental Environmental Impact Statement 2018 MMAA10400 Docket ID: BOEM-2017-0001

The American Petroleum Institute (API), the National Ocean Industries Association (NOIA), the Louisiana Mid-Continent Oil and Gas Association (LMOGA), the Petroleum Equipment and Services Association (PESA), and the Offshore Operators Committee (OOC) – hereinafter referred to as "the Joint Trades" - respectfully submit the attached comments on the Bureau of Ocean Energy Management's (BOEM) Gulf of Mexico Outer Continental Shelf Lease Sale Draft Supplemental Environmental Impact Statement 2018 MMAA10400, Docket ID: BOEM-2017-0001 – hereinafter referred to as "the Draft SEIS."

The Joint Trades represent energy companies who conduct the vast majority of the Outer Continental Shelf (OCS) oil and natural gas exploration and production activities in the United States. Additionally, many of our associations' members are involved in drilling, equipment manufacturing, construction, and support services for the offshore oil and natural gas industry. The comments submitted in this letter are without prejudice to any of our member companies' right to have or express different or opposing views.

Our members recognize that offshore operations must be conducted safely and in a manner that protects the environment. We also recognize that policy decisions that impact the offshore oil and gas industry must be based on sound science, transparency, consultation and adequate review. The Draft SEIS raises serious concerns regarding these important criteria. Specifically, BOEM has elected to include new, substantive, yet still incomplete, information from the ongoing Gulf of Mexico (GOM) Air Quality Modeling study in the Draft SEIS. Even more concerning, BOEM is choosing to use preliminary, incomplete results from this study to make National Environmental Policy Act (NEPA) environmental impact determinations. Use of an incomplete, ongoing work product as a basis for drawing conclusions on possible environmental impacts is neither prudent nor transparent, and does not present an accurate depiction of offshore operations to the public and interested stakeholders. The Joint Trades believe it is imperative that BOEM not utilize the preliminary results from the ongoing study as a basis for impact determinations. We recommend that the preliminary results only be used for analysis and review, but conclusions regarding any potential impacts to onshore air quality should not be based on an unfinished study.

These concerns are not new. In an earlier letter dated January 18, 2017, API objected to BOEM's conclusion in the Final Programmatic Environmental Impact Statement for the 2017-2022 Five-year Program (5-year Program FPEIS) that offshore oil and natural gas activity will lead to moderate onshore air quality impacts based on an interim deliverable from an ongoing BOEM study. To our knowledge, the interim deliverable was not publicly released for review. API raised similar concerns again in a letter to BOEM on April 10, 2017 regarding the inclusion of the preliminary air modeling results in the Gulf of Mexico OCS Oil and Gas Lease Sales: 2017-2022; Gulf of Mexico Lease Sales 249, 250, 251, 252, 253, 254, 256, 257, 259, and 261; Final Multisale Environmental Impact Statement (Multisale EIS).

Also, the Joint Trades submitted comments on June 20, 2016 on BOEM's proposed Air Quality, Reporting and Compliance Rule (Docket ID: BOEM-2013-0081) recommending that agency decisions should not proceed until there is a demonstration that OCS sources significantly affect onshore air quality and jeopardize compliance with the NAAQS.

It appears that BOEM continues to discount industry's concerns regarding use of preliminary data from the incomplete GOM Air Quality Modeling study. We cannot emphasize this point enough – the study must be completed and made available for public comment and input before the results and conclusions are used for policy-making, agency decisions, or future rulemaking.

We recommend that BOEM change the process for review of the GOM Air Modeling study moving forward to one that allows for substantial input from a multi-stakeholder group. By establishing such a group, model inputs, assumptions and results could be improved and the overall process would become more transparent. Such an approach would likely be more cost effective for BOEM as well, since re-running year-long photochemical models with updated assumptions can be time consuming and expensive.

### A. <u>Specific comments on the air quality information included with the Draft SEIS</u>

# 1. Information from the GOM Air Quality Modeling Study that is Critical to Decision Making and Public Review is Not Included in the Draft SEIS

The air quality information included in the Draft SEIS is incomplete. BOEM has not provided sufficient documentation on the assumptions that were made related to the models, the assumptions and basis for the data used as model inputs, and what type of adjustments were made as the result of sensitivity analysis. Some examples of critical information that has not been included in the Draft SEIS are:

- Model input data from the 2011 GOM Emissions Inventory (GOADS), including how the emissions estimates in the 2011 emissions inventory were adjusted prior to use in the modeling study.
- The methodology for developing the default emission factors for Shallow and Deepwater platforms used to project future emissions.
- Information on how emission factors for ammonia and lead were developed; this information is important since the 2011 GOM Emissions Inventory did not contain emissions estimates for ammonia and lead.

In short, the public has received an unfinished work-in-progress document that does not include relevant information required for the public and interested stakeholders to make well-informed, constructive comments.

Since not all supporting information has been made available and the GOM air study is still underway, the public has no means to determine whether the information presented in the Draft SEIS represents "the best available data" for NEPA decision-making. Of greater concern is the fact that BOEM has chosen to utilize an unfinished, work-in-progress study as the one of the bases for important decisions regarding further development of resources in the GOM.

# 2. Information Specifically Referenced in the Draft SEIS has been Omitted, and the Draft SEIS Contains Contradictory Information

In numerous instances, information is referenced that has been omitted from the Draft SEIS, or the Draft SEIS makes contradictory conclusions. Some examples include:

• Section 4.1.2.1, Drilling and Production Associated Vessel Support, page 4-29

BOEM references Section 3.1.4.4 for a discussion of support vessels for OCS oil and gas related activities; however, there no such section in the Draft SEIS document. In addition, other sub-sections in Section 3.1 "Routine Activities" do not provide a discussion of support vessels.

The conclusion paragraph stating that the impacts of support vessels are minor offers no substantiated basis for this conclusion; it only references impacts "as shown in the model" – a model, as discussed above, that has not been completed and made available for comment. In addition, it is unclear how emissions from support vessels were assessed in the model. As referenced in BOEM guidance, operators are required to assess support vessel emissions when the vessel is within 25 miles of a facility<sup>1</sup>. For consistency and future comparison of the model results to actual OCS emissions, we recommend that BOEM include similar assumptions in the modeling.

• Section 4.1.2.2, Accidental Events, page 4-31

The Draft SEIS states that air emissions from accidental events are discussed in Section 3.2.3. However, Section 3.2.3 discusses accidental events response, but offers no discussion of air emissions from accidental events.

# 3. Assumptions in the Draft SEIS are Unrealistically Conservative and Do Not Reflect Actual GOM Conditions

Based on the information presented in the Draft SEIS, the air quality model appears to be an unrealistic worst case scenario with regards to overall emissions from OCS oil and gas platform and support vessel emissions. However, had additional information on the specifics of the model assumptions and input data

<sup>&</sup>lt;sup>1</sup> https://www.boem.gov/Environmental-Stewardship/Environmental-Studies/Gulf-of-Mexico-Region/Air-Quality/Air-Quality-Submission-<u>Tips.aspx</u>

been provided, perhaps a different conclusion could be reached. Some concerns that we have identified in the information presented in the Draft SEIS include:

- The existing OCS oil and gas platform and support vessel emissions were developed from the 2011 Gulfwide inventory based on activity data from GOADS. The existing GOM oil and gas emissions were held constant for future year projects at the 2011 level, even though these emissions would likely decrease over time as existing assets reach the end of their productive life and are removed from service. For these future year projections, the new emissions from new oil and gas platform and support vessels from the upcoming lease sale were taken as the maximum emissions from any future year in the lease period. The total emissions from these new platforms and support vessels were estimated to be the highest in 2033 for NOx, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, lead, and ammonia and in 2036 for SO<sub>2</sub> and VOC emissions. By 2033 and 2036, the emissions from the existing GOM oil & gas related sources would likely be much lower due to asset retirement, and emissions from unrelated onshore sources would likely be less as well due to control technology installation, calling into question specific changes in design values at regulatory monitors that are discussed in multiple sections of the Draft SEIS.
- There appears to be quite a bit of overprediction throughout the modeling process, such as the number of platforms forecasted for future years in the GOM, the direction of onshore flow winds used in the WRF model, and the development of worst case emissions based on a combination of two different forecasted emission years (2033 and 2036), yet the uncertainty due to these overpredictions does not seem to be addressed in the impact section. If BOEM is going to issue qualitative conclusions, then the uncertainty due to model overpredictions must also be addressed. The Draft SEIS makes statements about OCS sources contributing to exceedances, but those contributions might not be impacting NAAQS compliance status considering the overpredictions. The Draft SEIS does not discuss the uncertainty caveats in the summaries/conclusions.
- Figure C-15 in the Draft SEIS appears to overpredict the future number of platforms in shallower water depths, particularly platforms in less than 60 m of water. A review of Figure C-15 reveals that BOEM's future predictions show 137 new platforms (60% of the future total) in less than 60 m water depth. However, Figure C-15 does not account for historical trends nor ongoing platform removals. Using data from BSEE's Online Data Center, the Joint Trades have determined that for each year from 1990 to 2016, platform removals exceed platform installations in water depths less than 60 m (see chart below). Therefore, GOM activity in areas of less than 60 m water are centered on structure removal not installation. Any future projections must account for this type of historical trend.



Similarly, the number of wells drilled annually since 1990 has dramatically declined in shallower water depths (less than 200 meters). As the chart below demonstrates, activity as measured by the number of wells drilled is shifting from shallower water depths to deeper waters. Any future projections on platform locations used in the GOM Air Quality Modeling study and Draft SEIS should account for these trends to realistically represent future GOM projections.



- The underlying assumption used in the CAMx future year projections is that any currently unleased blocks in GOM are equally likely to be developed as part of the upcoming lease sale. This assumption ends up placing a substantial number of exploration and delineation wells (Figure 3-3 on page 3-16) and development wells (Figure 3-4 on page 3-18) in the areas closest to shore, where emissions are most likely to have an impact on on-shore receptors. Given that the placement of support vessel emissions is a function of the location of placement in the model, this decision compounds the overestimation of near-shore emissions and further overstates the on-shore impact. It also contradicts the general trends in development in the GOM region, which is increasingly moving to deepwater leases, which due to their distance from shore would likely have a lesser impact on onshore air quality. For example, BOEM data on bids received for lease sales in 2015 for the Western and Central GOM were 94% and 70%, respectively at a depth of 400 m (~1320 ft) greater<sup>2</sup>.
- In Appendix B which discusses the WRF modeling, every wind rose plot presented shows the model overpredicted onshore flow at every site in 2012. This impacts any results that show an onshore impact from offshore sources. It doesn't appear that the overprediction was considered in the uncertainties for the results. Data from 2012 is particularly important since it was the meteorology used in the CAMx model.
- It appears that a limited number of sites were selected for the wind rose plot evaluation used in the WRF model. For example, no wind data were selected for Galveston, TX. Since it seems to be important in the future year design value comparison, and since Galveston is one of the few non-attainment areas along the Gulf Coast, it would be beneficial to have the meteorological evaluation for Galveston in the WRF model.
- The upper air qualitative evaluation presented in Appendix B is very limited and as such raises several questions. Evaluation results are presented for just two sites and for just one sounding at each site. Using such limited data to represent the upper air modeling performance for the entire year is incomplete and inadequate. How did the rest of the year look for these two sites? Why were only two sites evaluated when there are nearly ten sounding sites along the Gulf Coast? What do the soundings look like at times of high ozone and/or PM? We recommend that further evaluation be completed and presented for multiple sounding sites and during times of elevated ozone and/or PM.
- Actual monitoring data show that the attainment/nonattainment areas along the Gulf Coast tend to have their cleanest days when there is a consistent onshore flow. The times where there are elevated levels of ozone with onshore flow, for example, is when there is recirculation of onshore emissions and not an impact of offshore emissions. The modeling does not appear to match actual monitoring conditions. The Joint Trades offer the following technical references as additional information regarding onshore ozone concentrations:
  - Background ozone concentrations in southeast Texas average about 50 ppb, with higher concentrations observed when winds originate from the continental U.S., and much lower

<sup>&</sup>lt;sup>2</sup> https://www.boem.gov/Gulf-of-Mexico-Region-Leasing-Information/

concentrations observed when winds originate directly from the Gulf of Mexico (Nielsen-Gammon et al., 2005a).<sup>3</sup>

- Days that are dominated by a stationary anticyclone (the Bermuda High, for example) tend to have lower ozone, in part because this circulatory pattern brings steady southeast winds from the Gulf of Mexico (Davis et al., 1998).<sup>4</sup>
- Sullivan et al (2009) performed cluster analysis on daily 72-hour HYSPLIT back trajectories for 2000 to 2007 to determine which transport patterns were associated with high ozone in the Houston-Galveston-Brazoria area. The lowest concentrations were observed for the trajectory cluster with a long fetch from the Gulf of Mexico (Sullivan et. al 2009).<sup>5</sup>
- Higher ozone levels were generally associated with backward trajectories over land compared with backward trajectories over the Gulf of Mexico (Hendler, 2012).<sup>6</sup>
- Assumptions regarding support vessel emissions are overly conservative and do not represent actual GOM operations. It is likely that support vessel emissions associated with existing platforms would decrease as older platforms are decommissioned, and would not be constant at 2012 levels in future year predictions. If nearer shore blocks were to be developed, they would likely be serviced by some of the same support vessels as existing facilities and may not have as high of incremental emissions as a result. In addition, there are potentially future year emission reductions for support vessels that would be realized based on new requirements for emission performance for vessels (MARPOL Annex 6), specifically near port locations. Also, the support vessel data presented in the Draft SEIS appears to show that most support vessel activity is originating in Vermilion Parish, Louisiana. However, industry operational experience would lead to the conclusion that most support vessel activity is originating from lower Lafourche Parish, Louisiana. We recommend that BOEM specifically examine these assumptions in the GOM Air Quality Modeling study and the Draft SEIS to ensure support vessel activity is characterized correctly.
- The Draft SEIS states that fugitive emissions can occur during all phases of OCS oil- and gas-related activity (Section 4.1.2, Page 4-28). However, production activities are the main source of fugitive emissions. There may be small fugitive emissions from diesel components on vessels and rigs, but production fugitive emissions are the primary source of fugitive emissions from OCS oil and gas activities. The 2011 GOADS report states, "Evaporative losses are insignificant in diesel engines due to the low volatility of diesel fuels (USEPA 2010)." Fugitive emissions are not calculated for diesel components on vessels and rigs as part of GOADS. In addition, BOEM has previously indicated that fugitive emissions may be overestimated by current emission factors. But the Draft SEIS contains no

 $http://www.tceq.state.tx.us/assets/public/implementation/air/am/contracts/reports/da/5820586245FY0801-20090316-ut-met_effects_on_pollutant_trends.pdf$ 

<sup>&</sup>lt;sup>3</sup> Nielsen-Gammon, J.W., J. Tobin, and A. McNeel. 2005. A Conceptual Model for Eight-Hour Ozone Exceedances in Houston, Texas, Part II: Eight-Hour Ozone Exceedances in the Houston-Galveston Metropolitan Area, January 29, 2005. http://files.harc.edu/Projects/AirQuality/Projects/H012.2004/8HRA/H12-8HRAFinalReport2.pdf

<sup>&</sup>lt;sup>4</sup> Davis, J. M., B. K. Eder, D. Nychka, Q. Yang. 1998. Modeling the effects of meteorology on ozone in Houston using cluster analysis and generalized additive models, *Atmospheric Environment*, Volume 32, Issues 14-15, August 1998, Pages 2505-2520.

<sup>&</sup>lt;sup>5</sup> Sullivan, D. 2009. Effects of Meteorology on Pollutant Trends. Final Report to TCEQ. Grant Activities No. 582-5-86245-FY08-01. Prepared by Dave Sullivan, University of Texas at Austin Center for Energy and Environmental Resources, Prepared for Kasey Savanich, for the Texas Commission on Environmental Quality, March 16, 2009.

<sup>&</sup>lt;sup>6</sup> Hendler, A 2012. Conceptual Model of Ozone Formation and Accumulation in the Beaumont—Port Arthur Area, August 31, 2012. http://www.setrpc.org/airdata/files/reports/rider8/1\_ConceptualModel\_083112.pdf

discussion of if or how adjustments to fugitive emissions data were made during the calculation of the platform emission factor used for projected future platforms.

#### 4. The Process BOEM has Chosen to Publicly Release Information from the GOM Air Quality Modeling Study Does Not Provide the Best Available Information to the Public

One of the Joint Trades' primary concerns is that the Draft SEIS does not contain a complete data set that describes the GOM Air Quality Modeling study and that the study is not complete. BOEM has elected to use the NEPA process and this, as well as subsequent SEISs to publish the results of the GOM Air Quality Modeling study for public review. Using the NEPA process for this purpose is inappropriate and decreases the transparency of how the modeling study was developed and executed. The use of incomplete information presents conclusions about the impacts on air quality from offshore operations that are not accurate – ultimately, resulting in providing incorrect information to the public. In addition, by utilizing preliminary, work-in-progress information in this (and possibly future) SEIS documents, the agency is arriving at conclusions and making decisions based on information that may significantly change once the study is complete. This is not a credible definition of "best available data."

To maximize transparency and ensure that the best available information is made available to the public, BOEM must establish a collaborative, multi-stakeholder input process to review the study inputs, methods, assumptions and results, complete the study, and make the complete study report available for public comment. Preliminary study results should not be used in NEPA decisions or future rule-making as this is inconsistent with sound science practices and could mislead the public.

### 5. BOEM May Analyze Air Quality Information Beyond the Agency's Authority, but Such Information Should Not Be Used to Prescribe Mitigations

BOEM's air quality authority set forth in OCSLA and the Clean Air Act is limited to onshore impacts to the NAAQS from offshore development and production. Although it may be appropriate for BOEM to consider and analyze other pollutants and activities in addition to the NAAQS when developing an EIS, only potential impacts to the NAAQS should be considered when determining future mitigations. For example, the Draft SEIS contains extensive discussion of greenhouse gases (GHGs). GHGs are not NAAQS pollutants, and any future mitigations prescribed by BOEM should not be based on potential GHG impacts. Specifically, in the Draft SEIS:

Section 4.1.2, Greenhouse Gases Including Downstream Gas, Page 4-26 - The entire discussion from the beginning of this section on page 4-25 centers on GHGs, pollutants that BOEM does not have authority to regulate because there is no NAAQS for these pollutants. However, on page 4-26, BOEM mentions N<sub>2</sub>O and black carbon as a by-product of flaring. The next sentence states that "This practice is rare on the OCS". Is BOEM referring to flaring as being rare, or the conversion of flared gas into N<sub>2</sub>O and black carbon as being rare? This distinction is key because in the next paragraph, BOEM states that they have used the PM<sub>2.5</sub> concentration to estimate the maximum amount of black carbon released because black carbon is a specific type of PM<sub>2.5</sub>. BOEM justifies this assumption in the final sentence of the second paragraph stating "BOEM has regulatory authority over PM<sub>2.5</sub>".

Section II.A of the Joint Trades comments on the proposed air rule (dated June 20, 2016) discusses BOEM's lack of authority to regulate pollutants that do not have a corresponding NAAQS, including precursors that have not been explicitly defined as such by EPA.

Although ozone modeling considers CO emissions from a facility, EPA has not defined it as a regulated precursor for ozone. We also note that BOEM should not regulate <u>black carbon</u> separately, to the extent it seeks to regulate precursors, as it lacks authority to regulate precursor elements absent a supporting EPA regulatory record, which is the agency with the expertise to make such a finding.

It is unclear what BOEM is seeking to accomplish with this discussion of GHGs and black carbon in the Draft SEIS. The Joint Trades recommends that the entire discussion of GHGs be removed from the Draft SEIS, especially since BOEM lacks the proper regulatory authority to impose mitigations for black carbon. Black carbon is not a NAAQS pollutant.

Similarly, BOEM's authority over certain activities in the GOM is limited, especially as that authority relates to offshore support vessels. Like GHGs, information contained in the Draft SEIS regarding support vessels should not be used to justify future mitigations. Specifically,

• Section 4.1.1, Emissions Inventories, Page 4-21 - BOEM states that production sources include survey vessels, pipe-laying operations, support vessels and helicopters, yet does not mention that BOEM does not have the authority to regulate air pollution emissions from vessels and helicopters. See section III.A of the Joint Trades comments on the proposed air rule (dated June 20, 2016) inserted below:

OCSLA limits BOEM's authority over offshore facilities 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>45</sup> MSCs, aircraft, and onshore facilities are clearly not "artificial islands . . . permanently or temporarily attached to the seabed" that are "exploring for, developing, or producing" oil and gas.<sup>46</sup> The Supreme Court has made clear that "the purpose of [OCSLA] was to define a body of law applicable to the seabed, the subsoil, and the fixed structures . . . on the Outer Continental Shelf."<sup>47</sup> The Supreme Court has noted that Congress' approach under OCSLA "was deliberately taken in lieu of treating the structures as vessels, to which admiralty law supplemented by the law of the jurisdiction of the vessel's owner would apply."<sup>48</sup>

<sup>&</sup>lt;sup>45</sup> 43 U.S.C. § 1333(a)(1).

<sup>&</sup>lt;sup>46</sup> As particularly relevant here, Congress expressly excluded one type of MSC—vessels—from OCSLA's purview. See 43 U.S.C. § 1332 (1)-(2) ("the subsoil and seabed of the [OCS] appertain to the United States and are subject to its jurisdiction and control . . . [OCSLA] shall be construed in such a manner that the character of the waters above . . . [are] high seas, and the right to navigation . . . therein shall not be affected"); id. § 1333(a)(1) (extending the jurisdiction of the U.S., through OCSLA, to "such installation or other device (other than a ship or vessel) [attached to the seabed] for the purpose of transporting [oil and gas] resources") (emphasis added). <sup>47</sup> Rodrigue v. Aetna Cas. & Sur. Co., 395 U.S. 352, 355 (2014).

#### <sup>48</sup> Id. (emphasis added).

# 6. Classification of Impacts in the Draft SEIS Are Overly Conservative and Are Not Aligned with the Definitions of Impacts Presented in the SEIS

The Draft SEIS makes several conclusions that appear to be overly conservative and do not appear to meet the impact definitions described Section 4.1, page 4-15. The impact definitions shown on page 4-15 are as follows:

- *Negligible No* measurable impact(s).
- *Minor* Most impacts on the affected resource could be avoided with proper mitigation; if impacts occur, the affected resource would recover completely without mitigation once the impacting stressor is eliminated.
- **Moderate** Impacts on the affected resource are unavoidable. The viability of the affected resource is not threatened although some impacts may be irreversible, or the affected resource would recover completely if proper mitigation is applied or proper remedial action is taken once the impacting stressor is eliminated.
- **Major** Impacts on the affected resource are unavoidable. The viability of the affected resource may be threatened although some impacts may be irreversible, and the affected resource would not fully recover even if proper mitigation is applied or remedial action is implemented once the impacting stressor is eliminated.
- Section 4.1.2.1, Flaring and Venting, page 4-31 The conclusion paragraph stating that the impacts of flaring and venting are minor offers no substantiated basis for this conclusion, and in fact, states that any such release would likely dissipate before reaching coastal areas. The justification presented supports a conclusion of "Negligible" not "Minor."
- Section 4.1.2.1, Decommissioning, page 4-31 BOEM is again drawing a conclusion that the air quality impacts from decommissioning activities, specifically from vessels which are not under BOEM's jurisdiction for air quality purposes, are "Minor" without offering any substantiated basis for this conclusion. What is the justification for labeling this activity as "Minor" instead of "Negligible" in this section, as well as in Table 4-1?
- Section 4.1.2.3.1, Impacts Assessment,  $PM_{10}$ , page 4-42 The Draft SEIS states, "The impacts to air quality from  $PM_{10}$  are **minor** because, while there are concentrations increases in water farther offshore, no overall standards were exceeded." The conclusion that no overall standards were exceeded should justify an impact classification of "Negligible."
- Section 4.1.2.3.1, Impacts Assessment, Nitrogen Dioxide (NO<sub>2</sub>), page 4-42 The Draft SEIS states, "The impacts to air quality from 1-hour NO<sub>2</sub> and annual NO<sub>2</sub> are **minor** because overall, concentrations decrease between the base and future year scenarios at most locations." A **decrease** in projected

emissions appears to indicate that air quality may be improving in projected future years. Therefore, the impact conclusion must be "Negligible."

- Section 4.1.2.3.1, Impacts Assessment, Sulfur Dioxide (SO<sub>2</sub>), page 4-43 The Draft SEIS states, "The impacts to air quality from 1-hour SO<sub>2</sub> and 3-hour SO<sub>2</sub> are **minor** because overall, concentrations decrease between the base and future year scenarios at most locations as sources retire or apply control equipment." A **decrease** in projected onshore concentrations appears to indicate that air quality may be improving in projected future years. Therefore, the impact conclusion must be "Negligible."
- Section 4.1.2.3.1, Impacts Assessment, Carbon Monoxide (CO), page 4-43 The Draft SEIS states, "The impacts to air quality from 1-hour CO and 8-hour CO are **minor** because overall, concentrations decrease between the base and future year scenarios at all locations." A **decrease** in projected onshore concentrations appears to indicate that air quality may be improving in projected future years. Therefore, the impact conclusion must be "Negligible."
- Characterization in Table 4-1 does not match text section discussions for Accidental Events (Emergency Flaring and Venting and Oil Spills) Emergency Flaring and Venting, and Oil Spills are identified in Table 4-1 as having a "Minor" impact on air quality, however, the second paragraph on page 4-32 in the "Emergency Flaring and Venting" section, and the first paragraph on page 4-33 in the "Oil Spills" section states "...potential impacts as a result of the much smaller reasonably foreseeable accidental gas release (Emergency Flaring and Venting) spills (Oil Spills) analyzed in this Supplemental EIS would be localized and short term, and would have **no impact** on coastal areas....". The concluding sentence of these paragraphs draws the unsubstantiated conclusion that "the accidental event's impact on air quality over the OCS and adjacent onshore areas on oil spills is therefore expected to be minor." If there is no impact to the coastal areas, Table 4-1 should reflect a "negligible" impact for Emergency Flaring and Oil Spills.

The OCS is not subject to the NAAQS. As explained in the Joint Trades written comments on the Proposed Air Quality Rules (June 20, 2016),

"First, as discussed, under section 5(a)(8) the Secretary's authority is limited to promulgating regulations for "compliance with the [NAAQS] pursuant to the [CAA] to the extent that activities authorized under [OCSLA] significantly affect the air quality of any State." Under the relevant state implementation plans, the border of the air quality control regions appears to extend only to the shoreline and not to the respective states' territorial waters. As such, NAAQS do not apply in the territorial waters."

Since the NAAQS do not apply to OCS, and BOEM has concluded that emergency flaring and venting and oil spills will have no impact on coastal areas air quality, Table 4-1 must be changed to document a "Negligible" impact from Emergency Flaring and Venting and Oil Spills, as opposed to "Minor".

### 7. Multiple Conservative Assumptions in the Draft SEIS Results in a Compounding Effect That Exaggerates the Conclusions

Many of the issues discussed above such as overprediction of future platforms and overly-conservative assumptions regarding onshore wind flows do not have a singular effect on the conclusions of the Draft SEIS. Overly conservative assumptions utilized in multiple ways in the GOM Air Modeling study and the Draft SEIS have a compound effect upon the final results. Inappropriate and inaccurate assumptions and model inputs, taken cumulatively, greatly exaggerate the potential impacts and conclusions presented in the Draft SEIS.

Therefore, it is critical that assumptions and model inputs are realistic and appropriate. Because of this compounding effect, the Joint Trades' recommendation of establishing a collaborative, multi-stakeholder work group to provide input to the GOM Air Quality Modeling study becomes imperative. By establishing a more collaborative, transparent process, where input from stakeholders is considered and utilized, the impact of overpredictions can be minimized and, ultimately, the model results are improved.

### B. General comments on other items in the DSEIS

- In comments on the Draft Multisale EIS dated June 6, 2016, API noted the confusion concerning BOEM's use of the acronym "EIA" to describe one thing in the DSEIS (economic impact area) and another in the 5-Year Program Programmatic EIS (environmentally important area). This confusion persists in the Draft SEIS.
- Our review shows that there were no changes between the impact determination table (Table 4-9, p. 4-62) in the Draft SEIS and the Multisale EIS. However, for estuarine systems the cumulative impact for both OCS oil and natural gas and non-OCS oil and natural gas is shown as "major". This is not what is reflected in the text on page 4-63 which describes only minor to moderate impacts.

#### C. Conclusion

The Joint Trades appreciate the opportunity to provide these written comments on the air quality data that has been made available in the Draft SEIS. However, as discussed in this letter, overall, we remain extremely concerned that BOEM is utilizing an inappropriate process for public review of the GOM Air Quality Modeling study. In addition, we have even greater concern that BOEM is using a yet-unfinished study to justify conclusions regarding potential environmental impacts and to present those conclusions to the public as "best available science." This is clearly not a prudent, sound and common sense approach to policy making.

In addition, the Joint Trades were notified on May 15, 2017 that BOEM extended the comment period until June 14, 2017 to allow for additional review of air quality information in the Draft SEIS. At the time notification of the comment period extension was received, the comments contained in this letter had been finalized. However, the Joint Trades will utilize the additional time granted to continue our review of the Draft SEIS air quality information, and we reserve the right to submit additional comments before the extended deadline of June 14, 2017.

If you have questions or would like to discuss these comments in more detail, please contact Greg Southworth at greg@offshoreoperators.com.

Sincerely,

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