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National Academies of Science, Engineering and Medicine
Division of Earth and Life Studies
Board of Atmospheric Sciences and Climate

SUBJECT: THE AD HOC COMMITTEE REVIEW OF THE BOEM "AIR QUALITY MODELING
IN THE GULF OF MEXICO STUDY"

The Offshore Operators Committee (OOC) would like to thank you for the opportunity to present to the above-referenced National Academies of Science, Engineering and Medicine (NASEM) ad-hoc committee on July 16, 2019 during the public session of the committee meeting. We hope you found our comments and information beneficial to the committee's charge. As discussed during the presentation, the OOC is an offshore oil and natural gas trade association that serves as a technical advocate for companies operating on the US Outer-Continental Shelf (OCS). Founded in 1948, the OOC has evolved into the principal technical representative regarding regulation of offshore oil and natural gas exploration, development, and producing operations. The OOC's member companies are responsible for more than 90% of the oil and natural gas production from the OCS.

It is our belief that continued engagement with industry subject matter experts will continue to benefit the committee as they pursue their stated goals and objectives. Therefore, we would like to offer OOC as a resource to the committee should they have further questions or need additional information regarding offshore oil and gas operations and associated air emissions. However, we also believe that to maximize the benefits to the ad-hoc committee, you may want to consider adding industry professionals, as well as air quality experts from the Gulf Coast States (TX, LA, MS, AL, FL), as full committee members to participate throughout the entirety of discussions.

OOC recognizes NASEM as the nation's preeminent source of high-quality, objective advice on science and its ability to provide balanced, independent and objective perspective on important technical issues. One of the primary strengths of NASEM is the tradition of bringing together recognized experts from diverse disciplines and backgrounds who might not otherwise collaborate. This strength is also underpinned by objectivity and the Academy's ability to encourage committees, through diverse membership, to conceive new ways of thinking about a topic or issue. The oil and gas industry has traditionally been one of these expert groups and has provided expertise and funding to support efforts in oil spill and dispersion science, offshore safety, co-existence of energy development and the environment, and expanding and sustaining ocean observations. OOC members have participated as members of NASEM committees for many years and have worked to increase industry involvement with the Academies over the past

decade. During the nomination process for this specific ad-hoc committee, OOC and members of industry submitted nominees identified as subject matter experts in the key areas identified in the committee's stated goals. OOC and its members feel strongly that the committee would further benefit by adding by adding oil and gas production expertise to help provide operational background and context that may be unique to our industry.

Benefits of active industry and Gulf States participation include:

- *Industry expertise would enhance the committee's understanding of offshore operations and the Gulfwide Offshore Activity Data System (GOADS), BOEM's emission inventory system for the Gulf of Mexico.* Previous (2011 and 2014) GOADS reports discuss known limitations to emission inventories and emissions estimates due to BOEM requirements for platform operators to provide activity data for air emission sources. BOEM must often interpret data inconsistencies and derive assumptions from reported data. Having committee members with expertise in GOADS and NAAQS emission inventories, can help to address the question of whether "the data inputs to the modeling analyses are reasonable, well documented, adequately supported" and ultimately reduce uncertainties associated with source data. GOADS and the National Emission Inventory (NEI), as well as Exploration Plans and Development Operations Coordination Documents, are the datasets and foundational inputs for Gulf of Mexico air quality modeling (including photochemical modeling and dispersion modeling for Emission Exemption Thresholds). It is essential to have a full understanding of inventories, sources and the unique differences of onshore, nearshore and offshore operations that will affect study results. These inventories are complex, and data is influenced by many variables not typically considered in the traditional scientific, hypothesis-driven method. An industry expert appointed to the committee can help provide more operational perspective on how industry collects, reports, and processes such data: 1) for compliance, 2) to meet individual industry emissions targets, and 3) inform the planning and operation of offshore assets. This insight can be valuable for the committee to successfully meet its objectives, and better inform BOEM's future Environmental Studies Program (ESP).
- *The committee would benefit from members with extensive knowledge in regulatory requirements associated with the NAAQS and air quality trends in the Gulf of Mexico region.* Given that BOEM has determined that the study is potentially highly influential due to its likely regulatory impact, it is beneficial for the review committee to have OCS offshore oil and gas operations and Gulf Region air quality expertise to review the stated goals of the study from the regulatory agency and regulated community perspectives. Given that the Gulf of Mexico is the primary OCS oil and gas exploration and production basin in the United States, and that BOEM continues to allocate substantial resources for environmental studies in that region, it strengthens confidence, objectivity and credibility in the review process if the Gulf Coast states are collectively represented and their needs are adequately addressed.
- *Experts from the Gulf Coast states can also provide local knowledge and in-depth understanding of foundational inputs such as meteorological data.* States impacted by each of the BOEM planning and leasing areas may want to focus on a review of assumptions (emissions, modeling, and operations) for their respective BOEM energy planning and leasing areas. Also, a review on smaller geographic areas may be appropriate since both meteorological and air quality models on smaller areas have shown geographic biases. In addition, expertise from the Gulf Region will be beneficial to understanding the nuances of Gulf flows and interactions of sea/land breeze along the Gulf of Mexico, thereby, providing better validation of the meteorological inputs to the model.

Since the results of this study are expected to affect the regulatory framework, we also recommend the Committee on Ocean Science and Assessment (COSA) solicit comments on the BOEM study. This would be an opportunity for critical review and scrutiny by all stakeholders with varying expertise and perspectives who may not otherwise collaborate. Such a solicitation will only help to promote the goal of sound decisions based upon robust and credible science, both of which are foundations of NASEM and the BOEM ESP. Actively collecting stakeholder input will also provide additional perspectives for the ad-hoc committee tasked with reviewing the BOEM study.

In closing, thank you for the opportunity to participate in the recent committee meeting and to comment on this important project. OOC looks forward to further engagement and would welcome the opportunity to help identify additional resources that could provide more in-depth industry insights or consult on other aspects of the BOEM study to ensure an accurate application to existing and future offshore operations.

If you have any questions or need additional information, please contact me at greg@offshoreoperators.com.

Sincerely,

A handwritten signature in blue ink that reads "Greg Southworth". The signature is written in a cursive style with a large, sweeping initial "G".

Greg Southworth
Associate Director
Offshore Operators Committee