

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF OCEAN ENERGY MANAGEMENT  
GULF OF MEXICO REGIONAL OFFICE**

BOEM NTL No. 2020-G02

Effective Date: October 1, 2020

**NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL, GAS, AND SULPHUR  
LEASES IN THE GULF OF MEXICO OUTER CONTINENTAL SHELF**

**Air Dispersion Modeling Information for Exploration Plans, Development Operations  
Coordination Documents, and Development and Production Plans**

The Bureau of Ocean Energy Management (BOEM) is reissuing this Notice to Lessees and Operators (NTL) to comply with Executive Order (E.O.) 13891 of October 9, 2019, Promoting the Rule of Law Through Improved Agency Guidance Documents, and the Office of Management and Budget (OMB) Memorandum, M-20-02, implementing the E.O.

This NTL supersedes all previous guidance on this subject for the Gulf of Mexico Region issued by BOEM or any of its predecessor agencies. It describes how to conduct dispersion modeling in the Gulf of Mexico Region where BOEM has air jurisdiction and will remain in effect until it is superseded or cancelled.

**Introduction**

The United States Department of the Interior (DOI), Bureau of Ocean Energy Management (BOEM) regulates air quality for facilities on the Outer Continental Shelf (OCS) in the area of the Gulf of Mexico west of 87°30'W longitude. BOEM reviews the facilities described in Exploration Plans (EPs), Development Operations Coordination Documents (DOCDs), and Development and Production Plans (DPPs) for compliance with applicable air quality laws and regulations. The following information is to provide a clear and consistent approach for complying with regulatory requirements and facilitate timely review of EPs, DOCDs, and DPPs. This NTL also explains that BOEM evaluates the impacts on state air quality from activities that BOEM approves on the OCS, including those activities for the exploration and development of oil, gas, and sulphur for compliance with the National Environmental Policy Act (NEPA). This NTL identifies relevant BOEM air quality-related regulations.

**Statutes Relevant to BOEM's Evaluation and Regulation of Air Emissions**

The Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. §§ 1331 *et seq.*) authorizes BOEM's regulation of air pollutant emissions associated with exploration and development of OCS oil, gas, and sulphur resources on the Outer Continental Shelf (OCS), and section 328 of the Clean Air Act (CAA) (42 U.S.C. § 7627) determines the geographical extent to which the

OCSLA air quality regulations apply. Section § 5(a)(8) of OCSLA requires BOEM to promulgate regulations for the purpose of ensuring that plans and activities BOEM authorizes do not significantly affect the air quality of any state and do not, therefore, affect any state's ability to comply with the national ambient air quality standards (NAAQs) of the CAA.

NEPA (42 U.S.C. 4321 et seq.) and its implementing regulations (40 CFR §§ 1500-1508) require federal agencies, including BOEM, to consider the reasonably foreseeable environmental impacts of their proposed actions, and to consider all reasonable alternatives to those actions. As a part its decision process for acting on an operator's EP, DOCD, or DPP, BOEM evaluates air emissions information in its NEPA analyses to determine the reasonably foreseeable impacts to air quality that may occur as a result of OCS exploration or development.

### **Air Dispersion Modeling Information**

A lessee or operator is required to conduct air quality modeling when an emission exemption threshold (EET), as determined by the formulas at 30 CFR § 550.303(d), is exceeded. If the lessee or operator is required to model, the lessee or operator must use an approved air quality model to model the projected air emissions and adhere to the guidelines in Appendix W of 40 CFR part 51 in conducting the modeling and preparing the report. Please submit to BOEM the appropriate modeling files (including but not limited to executables, input, and output files in their original format) and Modeling Report with the appropriate plan control number. General information is provided below. BOEM may request additional information at any time during this process.

Before initiating any modeling, BOEM encourages the lessee or operator to consult with BOEM air quality staff for any further questions such as:

1. *Pollutant(s) to Model.* Air quality modeling should be conducted on the pollutant(s) that exceed(s) the emission exemption threshold and for all NAAQS averaging times for that pollutant.
2. *Approved Air Quality Models.* Refer to NTL 2020-N02 (or its successor NTL, as applicable). All modeling executable files and user guides may be downloaded from the U.S. Environmental Protection Agency's (USEPA) Support Center for Regulatory Atmospheric Modeling (SCRAM) website (<https://www.epa.gov/scram>).
3. *Meteorological Data*
  - a. The lessee or operator may use BOEM's most recent datasets. Please contact BOEM for the data at [boem.pcass.airquality@boem.gov](mailto:boem.pcass.airquality@boem.gov).
  - b. Datasets are available for AERMOD and CALPUFF.
  - c. Datasets for both AERMOD and CALPUFF in Mesoscale Model Interface Program (MMIF) format can be downloaded at <http://data.gcoos.org/boem.php>.

4. *Terrain*
  - a. Overwater and shoreline are considered flat.
  - b. Gridded terrain and land-use data are available from the U.S. Geological Survey.
  
5. *Receptors*
  - a. There should be a higher number of receptors placed in areas along the shoreline where there are the highest design concentrations and most likely possible exceedances in applicable standards.
  - b. The National Park Service (NPS) Air Resources Division (ARD) has developed a database of modeling receptors for all the Class I areas in the US, which can be downloaded from the NPS web site at:  
<http://www.nature.nps.gov/air/maps/receptors/index.cfm>
  
6. *Sources*
  - a. Use the maximum pounds per hour from the OCS operation forms (i.e., BOEM-0138 or BOEM-0139) for each pollutant that exceeded the EET and convert to proper units as inputs into the model.
  - b. Model all sources using realistic stack parameters.
  - c. Stationary sources are classified as point sources.
  - d. If it is reasonable to do so, intermittent sources can use the annualized emission in accordance with Appendix W of 40 CFR part 51. Please contact BOEM for advance approval at [boem.pcass.airquality@boem.gov](mailto:boem.pcass.airquality@boem.gov).
  
7. *Breton Class I Analysis*
  - a. Visibility modeling may be requested by the Federal Land Manager (FLM) or by BOEM in order to satisfy its NEPA obligations.
  - c. Because the FLM will review the lessee's or operator's visibility modeling report, the lessee or operator may also wish to consult with the FLM. Please contact FLM at [aq\\_boem@fws.gov](mailto:aq_boem@fws.gov).
  
8. *Modeling Results*
  - a. Compare the maximum modeled concentration(s) with the appropriate Significance Levels (SLs) found in 30 CFR part 550 subpart C.
  - b. Compare the modeling concentrations with the appropriate NAAQS and averaging times.
  - c. For NAAQS with no SL listed in 30 CFR part 550 subpart C, compare maximum modeled design value added to the background concentration with the appropriate NAAQS for that averaging time.
  - d. The background concentration is the calculated design value of that monitor closest to the sources (use available latest 3 years of data). Design values are available from the USEPA at <https://www.epa.gov/air-trends/air-quality-design-values>.
  - e. NO<sub>x</sub> Conversions – First assume total conversion, and if the modeling results are below the SLs and NAAQS, then modeling is complete. If the modeled

results do not pass, take the results and multiple by 0.8 for 1-hour and 0.75 for annual NO<sub>x</sub>. Do not double the count by changing the scaling factor and multiplying the results.

9. *Modeling Report*

- a. Provide a brief overview of the project.
- b. Include OCS operation forms (i.e., BOEM-0138 or BOEM-0139) showing the pollutants and amounts that exceeded the emission exemption threshold.
- c. Provide a table of stack parameters (including stack exit diameter, stack exit velocity, stack exit temperature, and stack height) that were used and emissions rates for all sources with proper units. Please include any dimensions.
- d. Include a section discussing modeling physics and chemical configurations.
- e. Include a map providing the area and block, location of sources in latitude and longitude, distance to shoreline in miles, nonattainment areas, receptors, shoreline of nearest and adjacent states, and location of monitors used for background concentrations.
- f. Provide a table showing the calculated design value of the monitor used for the background concentration.
- g. Provide a table showing the comparison of all modeling results to the applicable standards. If modeled emissions exceed applicable standards, please contact BOEM at [boem.pcass.airquality@boem.gov](mailto:boem.pcass.airquality@boem.gov) to establish the next steps.

## **BOEM Regulations**

BOEM and its predecessor agencies promulgated regulations concerning the evaluation, prevention, and control of air emissions from the activities authorized by BOEM on the OCS. These regulations are included in 30 CFR Part 550 subparts A, B and C.

## **Guidance Document Statement**

BOEM issues NTLs as guidance documents in accordance with 30 CFR 550.103 to clarify and provide more detail about certain BOEM regulatory requirements and to outline the recommended information to be provided in various submittals. Under that authority, this NTL sets forth policy on and interpretation of statutory, regulatory, lease, contractual, or plan approval provisions to provide a clear and consistent approach for complying with those provisions. If you wish to use an alternate method for compliance, you are encouraged to get feedback from BOEM staff on the adequacy of your proposal to comply with the regulation.

Except to the extent that provisions of this NTL derive from requirements established by statute, regulation or by a provision in the lease, they do not have the force and effect of law and are not meant to bind the public in any way. This NTL is intended only to provide clarity to the public regarding existing requirements under the law.

While this NTL includes recommendations and guidance, the recommendation and guidance provisions may be made mandatory through a lease stipulation or condition of approval from BOEM or BSEE. If you are issued a plan, permit or other authorization from BOEM or BSEE with a condition of approval, or a lease with a stipulation, requiring compliance with this NTL or identified portions thereof, you must implement those portions or all aspects of the NTL, if particular aspects are not singled out in the stipulation or condition of approval. Under such circumstances, you must implement and comply with the NTL (or identified portions thereof) regardless of whether the terms within the NTL would otherwise be a recommendation or request (e.g., use of the term “should” in the NTL will be considered “must” if required by the lease stipulation or condition of approval).

### **Paperwork Reduction Act of 1995 (PRA) Statement**

This NTL provides clarification, description, and interpretation of requirements contained in 30 CFR Part 550, Subpart A, B, and C. An agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB Control Number. OMB has approved the information collection requirement in these regulations under OMB control numbers 1010-0057, 1010-0114, and 1010-0151. This NTL does not impose additional information collection requirements subject to the Paperwork Reduction Act of 1995.

### **Contacts**

If you have questions regarding this NTL, please contact Stacie Merritt at [Stacie.Merritt@BOEM.gov](mailto:Stacie.Merritt@BOEM.gov), or at (504) 736-3276, or the Physical/Chemical Sciences Section in the Gulf of Mexico OCS Region by email at [boem.pcass.airquality@boem.gov](mailto:boem.pcass.airquality@boem.gov).

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