

Outer Continental Shelf (OCS) Air Permitting Seminar

ENVIRONMENTAL PROTECTION AGENCY (EPA)

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Outer Continental Shelf (OCS) Air Permitting Overview



OCS Air Permitting Overview Agenda

- Regulatory Requirements
- OCS Air Permitting Jurisdiction
- Wind Energy in the OCS
- OCS Air Permitting Process & Timeline
- Common Policy Questions
- Other Applicable Requirements



Outer Continental Shelf (OCS) Air Permitting

- CAA Section 328 directs EPA to establish regulatory requirements to control air pollution from sources located on the OCS. Regulations established in 40 C.F.R. part 55 (1992).
- Air pollution control requirements implemented through OCS permits.
- Applicability of CAA requirements depends on OCS source location (inner or outer OCS). Distances measured in nautical miles (nm).
 - 40 C.F.R. § 55.13 Federal requirements that apply to OCS sources
 - NSPS, NESHAPs, PSD, Title V
 - 40 C.F.R. § 55.14 Req. that apply to [Inner] OCS sources
 - State/local requirements applicable in the COA and incorporated into part 55 (e.g., NNSR).
 - COA is the onshore area that is geographically closest to the source (i.e., Nearest Onshore Area (NOA)), or another onshore area that the EPA Administrator designates as the COA, pursuant to 40 C.F.R. 55.5.



NSPS – New Source Performance Standards NESHAPs – National Emissions Standards for Hazardous Air Pollutants PSD – Prevention of Significant Deterioration NNSR – Nonattainment New Source Review



OCS Air Permitting (Continued)

- **EPA's OCS air permitting jurisdiction:**
 - States along the Pacific
 - States along the Arctic (other than the Chukchi and Beaufort Seas)
 - States along the Atlantic Coasts
 - Along Florida (includes eastern Gulf of Mexico)
- Agencies with delegated OCS air permitting authority:
 - 3 state agencies (Delaware, Maryland, Virginia)
 - 4 local California agencies (San Luis Obispo, Santa Barbara, South Coast, Ventura County).





Wind Energy in the OCS

- Part of EO14008 Tackling the Climate Crisis at Home and Abroad (Jan. 2021)
 - Section 207: "...goal of doubling offshore wind by 2030 while ensuring robust protection of our lands, waters and biodiversity and creating good jobs..."
- Part of DOI, DOE and DOC goals for new leasing, funding and development of Offshore Wind Energy (March 2021)
 - Goal to deploy 30 GW of Offshore Wind by 2030.
- To date, EPA has issued, or public noticed 8 permits:
 - Issued
 - Vineyard Wind 1 (May. 2021)
 - South Fork Wind (Feb. 2022)
 - Revolution Wind (Sep. 2023)
 - Empire Wind (Feb. 2024)
 - Public noticed
 - New England Wind I and II (Dec 2023)
 - Sunrise (Dec 2023)
 - CVOW (Jan 2024)





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BOEM Offshore Wind Energy Authorization Process





EPA OCS Air Permitting Process



- An application for a PSD permit must be granted or denied within 1-year after EPA determines the application complete. CAA §165(c).
- An application for a Title V permit must be granted or denied within 18 months after EPA determines the application complete.
 40 C.F.R. 71.7(a)(2).
- Where an OCS air permit addresses multiple requirements (PSD, Title V, etc.), EPA seeks to make its final decision by the earliest applicable deadline.

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Defining the OCS Source



- Under CAA § 328, the term "OCS source" includes:
 - Any equipment, activity, or facility which:
 - Emits or has the potential to emit any air pollutant;
 - Is regulated or authorized under the Outer Continental Shelf Lands Act ("OCSLA") (<u>43 U.S.C. § 1331</u> et seq.); and
 - Is located on the OCS or in or on waters above the OCS.
 - Such activities include, but are not limited to, platform and drill ship exploration, construction, development, production, processing, and transportation.
- Under EPA's implementing regulations in 40 C.F.R. § 55.2, an "OCS source" includes vessels only when they are:
 - Permanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring, developing or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA (<u>43 U.S.C. § 1331</u> et seq.); or
 - Physically attached to an OCS facility, in which case only the stationary sources aspects of the vessels will be regulated.



Defining the OCS Source (Continued)

- 1. All stationary equipment and activities within the proposed wind farm, including all wind turbines, are part of a single "OCS source."
 - All such equipment and activities are integral components of a single industrial operation that emits or has the potential to emit any air pollutant, is regulated or authorized under OCSLA, and is located on the OCS or in or on waters above the OCS.
 - The OCS source comprises all offshore Wind Turbine Generators (WTGs) and their foundations, each Offshore Substation (OSS) and its foundation, the inter-array cables, and vessels when they meet the definition of an OCS source in 40 C.F.R. § 55.2.
 - Emissions from any vessel "servicing or associated with" any component of the OCS source (including any WTG or OSS) while at the source and while *en route* to or from the source within 25 nautical miles of it must be included in the OCS source's potential to emit, consistent with the definition of "potential emissions" in 40 C.F.R. § 55.2.



Defining the OCS Source (Continued)

- 2. Separate wind farms may constitute one OCS source and stationary source. 40 C.F.R. § 52.21(b)(6)(i).
 - Within the same industrial classification
 - Located on contiguous or adjacent properties
 - Under common control
- 3. Construction and operation/maintenance are different phases of the same OCS source.





Defining the OCS Source (Continued)

- 4. Meteorological buoys may be OCS sources.
 - If the buoys meet the OCS source definition.
 - Permit examples:
 - EPA Region 1 Deepwater Wind New England, LLC
 - EPA Region 2 Ocean Wind LLC



- 5. Cable-laying vessels (dynamically positioned and pull-ahead anchor CLVs) are not "OCS sources."
 - While pull-ahead vessels are attached to the seabed, they are not "erected thereon."
 - Not "used for the purpose of exploring, developing or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA."





Construction Emissions



- 1. Certain temporary emissions, e.g., construction emissions, may be excluded from air quality modeling analyses:
 - "If the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from the modification: (i) would impact no Class I area and no area where an applicable increment is known to be violated, and (ii) would be temporary." (<u>40 C.F.R. 52.21(i)(3)</u>)
 - Temporary emissions include, but are not limited to, those from a pilot plant, portable facility, construction or exploration. Emissions occuring for less than 2 years at one location would generally be considered temporary. Emissions for longer periods of time might also be considered to be temporary... but should be dealt with on a case-by-case basis (<u>45 FR 52676, 52719</u>, Aug. 7, 1980).

2. Nonattainment NSR offsets are not required for construction emissions.

- CAA sections 173(a)(1)(A) and 173(c)(1) tie actual emissions reductions from offsetting measures to the operation
 phase of a project. See also 40 C.F.R. part 51, Appendix S (exempting emissions from construction phase of a new
 source from offset requirements).
- Consistent with longstanding EPA and state approach to implementation of NNSR program requirements.



Other Applicable Federal Regulations

- Other Federal requirements that may apply to OCS sources:
 - NSPS in 40 C.F.R. part 60
 - NESHAPs in 40 C.F.R. parts 61 and 63
- Two NSPS and NESHAPS that commonly apply to wind energy OCS sources:
 - <u>40 C.F.R. part 60, subpart IIII</u> NSPS for Stationary Compression Ignition Internal Combustion Engines
 - <u>40 C.F.R. part 63, subpart ZZZZ</u> NESHAP for Stationary Reciprocating Internal Combustion Engines
- A permit applicant may request an exemption from any pollution control requirement the applicant believes is technically infeasible or will cause an unreasonable threat to health and safety (40 C.F.R. 55.6(a)(2)).



Exemption from Control Technology or NSPS Testing Requirements

Control Technology Exemption: 40 C.F.R. 55.7

- Exemption request must include (40 C.F.R. 55.7(b)(4)):
 - 1. Information that demonstrates that compliance with a control technology requirement would be technically infeasible or would cause an unreasonable threat to health and safety.
 - 2. A proposed substitute requirement(s) as close in stringency to the original requirement as possible.
 - An estimate of emission reductions that would be achieved by compliance with the original requirement, an estimate of emission reductions that would be achieved by compliance with the proposed substitute requirement(s) and an estimate of residual emissions.
 - 4. Identification of emission reductions of a sufficient quantity to offset the estimated residual emissions.
- Opportunity for public comment required (40 C.F.R. 55.7(f)).

NSPS Performance Test Exemption: 40 C.F.R. 60.8

- Available at 40 C.F.R. 60.8(b)(4).
- EPA may waive requirement for performance tests if owner/operator demonstrates compliance with standard by other means.

Examples can be found in various Region 4 OCS air permits at: https://www.epa.gov/caapermitting/outer-continental-shelf-ocs-permitactivity-southeastern-us

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Other Applicable Federal Statutes, Executive Orders and Federal Requirements

- Section 7(c) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 793(c)(1)) exempts all EPA CAA actions from the National Environmental Policy Act (NEPA).
- NEPA Record of Decision (ROD), however, is used to show compliance with the following Acts only for federal CAA OCS permitting actions. MOU between EPA and BOEM designates BOEM as the lead agency and EPA as the cooperating agency in showing compliance with these Acts.
 - Endangered Species Act (ESA)
 - Under Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), the EPA must ensure that any action authorized, funded, or carried out by the EPA is not likely to jeopardize the continued existence of any federally listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat.
 - National Historic Preservation Act (NHPA)
 - Section 106 of the NHPA, 16 U.S.C. 470f, and the implementing regulations at 36 C.F.R. part 800 require federal agencies to consider the effect of their actions on historic properties and afford the opportunity for the Advisory Council on Historic Preservation and consulting parties to consult on the Federal undertaking.
 - Magnuson-Stevens Fishery Conservation and Management Act (MSA)
 - In accordance with Section 305(b)(2) of the MSA, 16 U.S.C. § 1855(b)(2), federal agencies are required to consult with the National Marine Fisheries Service (NMFS) on any action that may result in adverse effects on essential fish habitat.



Other Applicable Federal Statutes, Executive Orders and Federal Requirements (Continued)

Coastal Zone Management Act

Section 307 of the CZMA and its implementing regulations at 15 C.F.R. part 930, subpart C require that federal
actions within the coastal zone or within the geographical location descriptions (i.e., areas outside the coastal zone
in which an activity would have reasonably foreseeable coastal effects) affecting any land or water use or natural
resources of the coastal zone be consistent to the maximum extent practicable with the enforceable policies of a
state's federally approved coastal management program.

• Environmental Justice

Just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal
affiliation, or disability, in agency decision-making and other Federal activities affecting human health & the
environment

• Tribal Consultation

• Executive Order 13175 commits federal agencies to engage in consultation with tribes when federal actions have tribal implications.

General Conformity

• Pursuant to 40 C.F.R. § 93.153(d)(1), a conformity determination is not required for the portion of an action that includes major or minor new or modified stationary sources that require a permit under the NSR program.



Resources

- EPA National OCS Air Permitting Webpage
 - https://www.epa.gov/caa-permitting/outer-continental-shelf-air-permits
- EPA OCS Wind Energy Database
 - <u>https://www.epa.gov/caa-permitting/outer-continental-shelf-wind-energy-database</u>
- EPA Regional Air Permitting Webpages
 - Region 1 <u>https://www.epa.gov/caa-permitting/caa-permitting-epas-new-england-region</u>
 - Region 2 <u>https://www.epa.gov/caa-permitting/caa-permitting-new-jersey-new-york-puerto-rico-us-virgin-islands</u>
 - Region 3 https://www.epa.gov/caa-permitting/caa-permitting-epas-mid-atlantic-region
 - Region 4 https://www.epa.gov/caa-permitting/caa-permitting-epas-southeastern-region
 - Region 9 <u>https://www.epa.gov/caa-permitting/caa-permitting-epas-pacific-southwest-region-9</u>
 - Region 10 https://www.epa.gov/caa-permitting/caa-permitting-epas-pacific-northwest-region



Best Practices in OCS Air Permitting



Best Practices in OCS Permitting Agenda

- Notice of Intent
- Submitting a Permit Application and Completeness Determination
- Draft Permit & Public Comment Period
- Final Permit & Response to Comments



EPA OCS Air Permitting Process



- An application for a PSD permit must be granted or denied within 1-year after EPA determines the application complete. CAA §165(c).
- An application for a Title V permit must be granted or denied within 18 months after EPA determines the application complete.
 40 C.F.R. 71.7(a)(2).
- Where an OCS air permit addresses multiple requirements (PSD, Title V, etc.), EPA seeks to make its final decision by the earliest applicable deadline.

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Notice of Intent (NOI)

- Only applies to sources locating in the inner OCS.
- Required prior to performing any physical change or change in the method of operation that results in an increase in emissions.
- Must be submitted no earlier than 18 months prior to submitting a preconstruction permit application.
- Submitted to the EPA Administrator and air pollution control agencies of the NOA and onshore areas adjacent to the NOA.
- Requirements at 40 C.F.R. 55.4.



- NOI submittal generally includes:
 - 1. Company information (e.g., company name, address, owner's name and agent, and facility site contact).
 - 2. Facility description (i.e., proposed process and products).
 - 3. Estimate of the proposed project's potential emissions of any air pollutant, including emission from associated vessels.
 - 4. Estimate of quantity/type of fuels and raw materials to be used.
 - 5. Description of proposed air pollution control equipment.
 - 6. Proposed limitations on source operations or any work practice standards affecting emissions.
 - 7. Other information affecting emissions, including, where applicable, information related to stack parameters (including height, diameter, and plume temperature), flow rates, and equipment and facility dimensions.
 - 8. Such other information as may be necessary to determine the applicability of onshore requirements.
 - 9. Such other information as may be necessary to determine the source's impact in onshore areas.



NOI Considerations

- Advisable to meet with the permitting authority before submission of NOI.
- For sources in the inner OCS, EPA will conduct consistency reviews upon receipt of an NOI and when a State or local agency submits a rule to EPA to be considered for incorporation by reference in part 55 (40 C.F.R. 55.12(b)).
 - Consistency updates are regulatory actions that maintain the 40 C.F.R. 55.14 regulations (and Appendix A to part 55) that apply to inner OCS sources consistent with the applicable onshore regulations. See EPA's <u>Consistency Updates Index</u>.
 - Where an OCS activity is occuring, consistency reviews will occur at least annually.
- Any air pollution control agency that wants to be designated as the COA must submit request to the EPA Administrator within 60 days of NOI submittal (40 C.F.R. 55.5(b)). See 40 C.F.R. 55.12.
 - If no requests are received, NOA becomes the COA without further action.



Permit Application Submittal

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- Permit Applications for Inner OCS Sources
 - Submitted:
 - Only after the EPA has determined whether a consistency update is necessary and, if it is necessary, published a proposed consistency update. See 40 C.F.R. §§ 55.6(b)(2), and 55.12.
 - Only after the COA has been designated. See 40 C.F.R. § 55.5.
 - No more than 18 months after the NOI submittal. See 40 C.F.R. § 55.4.
 - It is also recommended that they are submitted:
 - After receiving EPA's approval of the modeling protocol.
 - After pre-application meeting(s) with EPA have occurred.
- Permit Applications for Outer OCS Sources
 - It is recommended that they are submitted:
 - After receiving EPA's approval of the modeling protocol.
 - After pre-application meeting(s) with EPA have occurred.



Permit Application Content

Application content requirements found at 40 C.F.R. § 55.6(a)(1):

- "The owner or operator of an OCS source shall submit to the [EPA] or delegated agency all information necessary to perform any analysis or make any determination required..."
- "Any application submitted pursuant to [part 55] by an OCS source shall include a description of all the requirements of this part and a description of how the source will comply with the applicable requirements. For identification purposes only, the application shall include a description of those requirements that have been proposed by EPA for incorporation into [part 55] and that the applicant believes, after diligent research and inquiry, apply to the source."
- Application content will depend on the Inner/Outer Status of the OCS Source.

Federal Requirements at 40 C.F.R. § 55.13							
Regs.	Inner OCS Sources	Outer OCS Sources	Remarks				
NSPSs	1	✓	Examples of potentially relevant NSPS subparts include NSPS IIII, JJJJ, and Kb.				
PSD (40 C.F.R. § 52.21)	✓ (See remarks)	✓	On the inner OCS, these requirements only apply if the federal PSD regulations (40 C.F.R. § 52.21) are in effect in the COA.				
NESHAPs	~	~	Examples of potentially relevant NESHAP subparts include NESHAP ZZZZ.				
Title V (40 C.F.R. part 71)	✓ (See remarks)	~	On the inner OCS, these requirements only apply if part 71 is in effect in the COA or EPA has issued a part 71 permit to satisfy an EPA objection.				

Requirements at 40 C.F.R. § 55.14 for Inner OCS Sources							
Regs.	Inner OCS Sources	Outer OCS Sources	Remarks				
COA air req. incorporated by reference into § 55.14, listed in Appendix A to part 55	~	Not applicable	Examples include SIP-approved PSD and NNSR regulations, EPA-approved Title V programs (40 C.F.R. part 70) & other onshore state/local requirements.				



Permit Application Content (Continued)

Application includes, but is not limited to:

- 1. Identification and brief description of each emission source (e.g., marine and non-marine engines, switchgear equipment, storage tanks).
- 2. Identification and brief description of each project activity that has the potential to generate air pollutants (e.g., painting activities).
- 3. Emission estimates (in tpy) for each emission source and activity, accompanied by sample calculations, the basis for each emission factor, and all assumptions made in the emission estimates. Used to calculate the project's Potential to Emit (PTE).
- 4. Project's PTE (as defined in 40 C.F.R. § 55.2) for each air pollutant and provided separately for the construction and operation/maintenance phases.
- 5. Description of each air regulation that the applicant determines would apply to the entire project based on its PTE (e.g., PSD, NNSR, and Title V) and how the applicant proposes to comply with those requirements. <u>More details in the next two slides.</u>

- 6. Emission estimates and other information related to stack parameters (e.g., height, diameter, gas exit velocity and gas temperature), flow rates, and facility dimensions including those of other sources that effect the NAAQS and increment if OCS source subject to PSD.
- 7. An explanation of why each emission unit and activity is or isn't an anticipated OCS source. For those that are OCS sources:
 - Description of each air requirement that the applicant determines would apply (Includes 40 C.F.R. § 55.13 and 40 C.F.R. § 55.14 req.).
 - Description of how the applicant proposes to comply with each CAA requirement.
 - Additional description and emissions information (e.g., emission rates) for EPA to determine the applicability of various CAA requirements to each emission source and activity.

As mentioned previously, permit applicant may seek an exemption from compliance with any pollution control technology requirement that is technically infeasible or will cause an unreasonable threat to health and safety. See 40 C.F.R. § 55.6(a)(2).



Permit Application Content: Major New Source Review

PSD Content (Non-Exhaustive List)

- 1. A PSD applicability section.
- 2. A "Top-Down" BACT analysis for each regulated NSR pollutant subject to PSD review and for each emission source of the project that could emit that pollutant.
- 3. Proposed BACT (emission limit and control technology that enables achieving that emission limit) for each regulated NSR pollutant subject to PSD review and for each emission source of the project that could emit that pollutant.
- 4. An air quality analysis of the National Ambient Air Quality Standards (NAAQS) and PSD increments, as applicable for each regulated NSR pollutant subject to PSD review.
- 5. Preconstruction ambient air measurements.
- 6. An analysis of Class I areas impacts, if the OCS source could impact a Class I Area.
- An analysis of the new source or project's impacts on visibility, soils, vegetation, and the impacts associated with growth due to the project or new source.

NNSR Content (Non-Exhaustive List)

- 1. An NNSR applicability section.
- A LAER analysis for each regulated NSR pollutant subject to NNSR review and each emission source of the project that emits that pollutant.
- 3. Proposed LAER (emission limit & control technology that enables achieving that emission limit) for each regulated NNSR pollutant and each emission source of the project that emits that pollutant.
- 4. Offsets (actual emissions reductions elsewhere) for all the project's pollutants that equal or exceed the applicable major NNSR source thresholds during the operation and maintenance phase of the project.
- Certify that all emission sources at any major facility owned or controlled by the permit applicant are in compliance or on a schedule to achieve compliance with all applicable air regulation requirements.
- 6. An analysis of alternative sites, sizes, production processes, and environmental control techniques that demonstrates that the project's benefits significantly outweigh its environmental and social costs.



Permit Application Content: Operating Permit Requirements (Title V)

- OCS sources to which 40 C.F.R. part 71 applies Applicants should consult with EPA regarding the necessary additional application content and/or forms related to part 71 requirements, and in general should follow the application content specified in 40 C.F.R. § 71.5.
- OCS sources to which EPA-approved 40 C.F.R. part 70 permitting programs apply -Applicants should consult with EPA regarding the necessary additional application content and/or forms related to applicable part 70 program requirements, and in general should follow the application content of the COA's part 70 permitting program and the associated application forms.
- Depending on the applicable COA permitting program, an applicant may have flexibility to apply for and include the Title V permit requirements in its OCS air permit after the initial OCS permit is issued.

Permit Application Content: Other Information

- Confidential Business Information Identification of the portion(s) of the application submitted under a claim of confidentiality, if needed. If there are CBI claims, a submittal of a redacted copy of the application is necessary.
- 2. Coastal Zone Management Act Some states' coastal zone management programs (CZMP) have identified OCS air permits on the list of activities subject to federal consistency review. For OCS wind projects located near such states, a complete application must include the consistency certification that the applicant submitted to the state showing the proposed project complies with the state's CZMP.



Permit Application Review and Completeness Determination



Administrative procedures in either 40 C.F.R. part 124 or 40 C.F.R. part 71 apply to OCS Sources.

40 C.F.R. part 124 ("Procedures for Decision Making")

- EPA reviews the OCS air permit application for **completeness** and determines whether it is complete within 30 days of receiving the application. *See* 40 C.F.R. § 124.3(c)
 - *"Complete* means that the application contains all of the information necessary for processing the application." *See* 40 C.F.R. § 52.21(b)(22).
- If the application is incomplete, EPA will request, in writing, the necessary information.
- When the additional information is received, EPA has another 30 days to determine the application complete.
- If the application is found complete, EPA will notify the applicant in writing.
- The completeness determination starts the one-year statutory period for a decision on the PSD portion of an OCS air permit application. See CAA § 165(c)).

40 C.F.R. part 71 ("Federal Operating Permit Programs")

- If EPA is applying part 71 procedures to an initial permit, major permit modification, or permit renewal, it must take final action on the Title V portion of OCS air permit application within 18 months after receiving a complete application. *See* 40 C.F.R. § 71.7(a)(2).
- This would include where an OCS permit has already been issued, and an applicant has submitted an application to incorporate title V requirements into the permit.

In general, additional information requests (with response deadlines) after the completeness determination do not render the application incomplete.

After completeness determination, EPA reviews the application in detail to determine whether the decision to grant an OCS air permit is warranted.



Permit Application Review and Completeness Determination: Common Incompleteness Findings Examples

- Not adequately identifying the project's emission sources and emitting activities.
- Not providing adequate information to identify the vessels or other components that meet the OCS source definition.
- Inadequate or missing BACT and/or LAER analysis.
- Lack of explanation of how the PTE calculations were made.
- Failure to provide a list of assumptions made in the PTE calculations.
- Missing demonstration of how the applicant proposes to comply with certain air requirements.
- Missing air quality analysis or AQRV information.
- Missing elements in the air quality model input (e.g., missing transit emissions).



Draft Permit and Fact Sheet



- After the completeness determination, EPA starts processing the application, including drafting the permit terms and conditions.
- A draft permit includes proposed permit conditions (40 C.F.R. 124.6(d)) and is:
 - Accompanied by a Fact Sheet or Statement of Basis describing the bases for the permit conditions (40 C.F.R. 124.6(e), 124.7, 124.8)
 - Available for public comment through EPA's website and <u>www.regulations.gov</u>
 - Minimum 30-day comment period that may be extended upon request (40 C.F.R. 124.10(b))
 - Any person may submit written comments during the public comment period and may request a public hearing (40 C.F.R. 124.11)



Draft Permit and Fact Sheet Considerations

- Any person may request to be placed on a mailing list to receive direct notice of information about a specific permit application (40 C.F.R. 124.10(c)).
- All comments received during the public comment period are part of the administrative record for the permit, available at <u>www.regulations.gov</u> (40 C.F.R. 124.18(b)).
- Fact Sheets are typically not revised or reissued based on the comments received. Changes in permit content and rationale will typically be described in additional documents, including responses to comments.



Response to Comments Document and Final Permit

- EPA considers all significant comments received during public comment period.
- EPA develops a Response to Comments (RTC) document.
 - Addresses all significant comments on the draft permit or permit application raised during the public comment period or during any hearing (40 C.F.R. 124.17)
 - Explains and documents how the final permit, if one will be issued, might have been revised after considering comments and correcting the draft permit.

• EPA issues final decision.

• Final decision deadline may be affected by any delays in the issuance of the NEPA ROD.



Final Permit Considerations



- A final permit becomes invalid if construction is not commenced within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more (40 C.F.R. 55.6(b)(4)).
- Any preconstruction permit issued to a new OCS source or modification shall remain in effect until it expires or is rescinded (40 C.F.R. 55.6(b)(5)).



Permit Appeals Process



- EPA-issued permits are effective 30 days after issuance, unless a later date is specified in the decision, or the final permit is appealed.
 - Appeals must be submitted within these 30 days.
 - Filing of petition for review extends time for final action on the permit.
- Appeals of permits issued by EPA Regional Offices are first heard by the EPA's Environmental Appeals Board (EAB).
 - Any person who filed comments on the draft permit or participated in the public hearing may petition the EAB to review the final permit decision.
 - Rules governing this appeal process are at 40 C.F.R. 124.19.
 - Consult the EAB Practice Document on EAB website (<u>www.epa.gov/eab</u>) for practical guidance on the process and submissions to the EAB.
 - See Board Decisions on website for an EAB decision on an OCS permit for an offshore wind facility (Cape Wind Associates, LLC)
- Once all administrative appeal remedies are exhausted, EPA's decision may be further appealed to U.S. Courts of Appeal.



OCS Air Permitting: Air Quality Modeling



Air Quality Modeling Agenda

- Modeling protocol and model selection
- Modeling domain and Class I areas
- Source characterization and modeling construction emissions



Air Quality Modeling



- Under the Clean Air Act (CAA) new or modifying industrial facilities locating in attainment areas must demonstrate that they will not cause a violation the NAAQS and not significantly degrade air quality.
- Air quality modeling is used to inform these new source and air pollution control decisions:
 - Estimate the impacts of new sources or modifications to existing sources (e.g., emissions controls).
 - Characterize air quality in areas without monitoring data.
- The CAA further requires the EPA to specify with reasonable particularity regulatory air quality model or models and to standardize requirements and recommendations for their application.



Pre-Application Activities: Communication

Pre-Application Meetings

- Paramount to a timely and successful permit application.
- Should be early and frequent between the applicant/consultant and the permit reviewing authorities to ensure common understanding and keep everything on track.
- The better the communication the more streamlined the process.

Modeling Protocol

- Strongly recommended.
- Provides an overview of the project, pollutants to be assessed, selection of appropriate model, domain and receptor configuration, meteorological and emissions model input development, source(s) selection and characterization, analysis and compliance demonstration approach, how results will be presented, and any special considerations.
- Agreement should be reached on the modeling protocol prior to any significant modeling activities.
- EPA has developed an Air Quality Analysis Checklist that can be helpful in the development of the modeling protocol and subsequent modeling activities:
 - <u>https://www.epa.gov/sites/production/files/2020-09/documents/air_quality_analysis_checklist-revised_20161220.pdf</u>



Guideline on Air Quality Models

- 40 C.F.R. part 51 Appendix W
 - Commonly referred to as the "Guideline" or "Appendix W"
- Provides air quality modeling techniques that apply to:
 - State Implementation Plan (SIP) submittals and revisions. (40 C.F.R part 51; §§ 51.112, 51.117, 51.150, 51.160)
 - NSR, including new or modifying sources under PSD. (40 C.F.R. part 51; § 51.166 and 40 C.F.R. part 52.21)
 - Conformity analyses. (40 C.F.R. part 93; §§ 93.116, 93.123, and 93.150)
 - Other air quality assessments.
- Latest revision published on January 17, 2017:
 - <u>https://www.epa.gov/sites/production/files/2020-</u>09/documents/appw_17.pdf

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5182 Federal Register/Vol. 8	2, No. 10/Tuesday, January 17, 2017	/Rules and Regulations		
ENVIRONMENTAL PROTECTION AGENCY	timely manner, may be approved at the discretion of the appropriate reviewing	2. Updates to EPA's AERMOD Modeling System 2. Stature of AERSCREEN		
40 CFR Part 51	authority. This final rule also starts a 3-year	4. Status of CALINE3 Models		
EPA_HO_OAR_2015_0310- ERI _0056_23_	transition period that ends on January	5. Addressing Single-Source Impacts on Orone and Secondary PM.		
OAR]	17, 2020 for transportation conformity	6. Status of CALPUFF and Assessing Long-		
RIN 2060-AS54	started before the end of this 3-year	Range Transport for PSD Increments and Regional Haze		
Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches To Address Ozone and Fine Particulate Matter	period, with a preforred appendix A model based on the 2005 version of the <i>Guideline</i> , can be completed after the end of the transition period, similar to implementation of the transportation conformity grace period for new emissions models. See the discussion in	 Role of EPA's Model Clearinghouse (MCH) Updates to Modeling Procedures for Camulative Impact Analysis Updates on Use of Meteorological Input Data for Regulatory Dispersion Modeling Final Editorial Changes Preface 		
AGENCY: Environmental Protection	details on how this transition period	2. Section 1 3. Section 2		
ACTION: Final rule	will be implemented.	4. Section 3		
Activity: Final rule. RACINE: Final rule. Environmental Protection Agency (EPA) promigates revisions to the Guideline of the Guideline provides EPA's preferred models and other recommended models and other recommended incorporated into the EPA's regulations, satisfying a requirement under the Clean that Act (CAA) for he EPA to specify bus densities of the EPA's regulations, satisfying a requirement under the Clean Ar Act (CAA) for he EPA to specify bus densities and the EPA's regulations, action includes enhancements to the formulation and application of the EPA's preferred near-field dispersion modeling system. AERMOD (Manerican Modeling vision. AERMOD (Manerican hording action of zone and fine particulate matter (PMs.) associated with prevenyer uniscions from single	All applicants are encouraged to an encouraged to consult with their respective reviewing authority as soon as possible to assure acceptance of their modeling protocols and/or modeling demonstration during their of these protocs. The source of the sou	Section 4 Section 5 Section 5 Section 6 Section 7 Section 8 Section 9 Section 8 Section 10 Section 10 Section 10 Section 10 Section 11 Section 11 Section 12 Section 1 Section 12 Section 12		
sources. The EPA is changing the preferred status of and removing several	Environmental Protection Agency, Mail	Advancement Act		
air quality models from appendix A of the Guideline. The EPA is also making various editorial changes to update and	NC 27711; telephone: (919) 541–5563; fax: (919) 541–0044; email: Bridgers. George@epg.gov.	To Address Environmental Justice in Minority Populations and Low-Income Populations		
reorganize information throughout the	SUPPLEMENTARY INFORMATION:	K. Congressional Review Act (CRA)		
assessment process.	Table of Contents	I. General Information		
DATES: This rule is effective February	The following topics are discussed in	A. Does this action apply to me?		
16, 2017. For all regulatory applications covered under the <i>cuideline</i> , except for transportation conformity, the changes to the appendix A preferred models and recommendations of the <i>Guideline</i> must be integrated in the regulatory processes of respective reviewing authorities and followed by applicants by no later than January 17, 2018. During the 1-yare period following promulgation, protocolis for modeling and years have on the 2000 years of all of the 2000 years of all of the 2000 years of all of the 2000 y	this presamble: L. General Information A. Dess this action apply to me? B. Where can glue a copy of this rule and B. Where can glue a copy of this rule and C. Juricial Review D. List of Armowyms H. Bickground H. The Tenth and Meeting and Pathernes on H. Discourse of Armonymetry of the Hearing IV. Discussion of Public Comments on the Proposed Chamber to the Catellane A. Final Action 1. Clarifications's To Distinguish	This action applies to federal, state, territorial, local, and tribal air quality management agencies that conduct air guality modeling as part of State also and revisions. New Source Review (NSR) permitting (including new or modifying industrial sources under Prevention of Significant Detectionation (PSD), conformity, and other air quality assessments required under EPA regulation. Categories and entities potentially regulated by this action		



Requirements and Recommendations within the Guideline: Preferred Models

- One of the most important aspects of the Guideline is promulgation of EPA's preferred air quality models for regulatory applications.
- Appendix A to the Guideline provides the listing, key features, regulatory use, input/output requirements of all EPA preferred models.
 - AERMOD Modeling System Steady-state Gaussian plume dispersion model for the nearfield assessment of pollutant concentrations overland
 - CTDMPLUS (Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations) Refined point source Gaussian air quality model for use in complex terrain applications
 - OCD (Offshore and Coastal Dispersion Model) Straight-line Gaussian model developed to determine the impact of offshore emissions from point, area or line sources on the air quality of coastal regions. OCD incorporates overwater plume transport and dispersion as well as changes that occur as the plume crosses the shoreline.





Requirements and Recommendations within the Guideline: Alternative Models

- When one of EPA's preferred models is not appropriate for the application or a more appropriate model/technique is available and applicable, the requirements in Section 3.2 of the Guideline must be followed:
 - Determination of acceptability of an alternative model is an EPA Regional Office responsibility in consultation with the EPA's Model Clearinghouse.
 - Alternative models shall be evaluated from both a theoretical and a performance perspective.
 - Three separate conditions under which an alternative model may be approved for use:
 - 1. The alternative model produces concentration estimates equivalent to the preferred model (*See* Section 3.2.2(c)).
 - 2. A statistical performance evaluation demonstrates that the alternative model performs better for the given application than the preferred model (*See* Section 3.2.2(d)).
 - 3. There is no preferred model (See Section 3.2.2(e)).



OCD versus AERMOD

- The OCD model is the EPA's preferred model for offshore/overwater sources; however, it is a dated model with many notable limitations:
 - 1. Lack of multi-tiered NO2 model screening approaches.
 - 2. Output is not generated in the statistical forms consistent with the current NAAQS.
 - 3. Does not account for calm wind conditions when calculating predicted pollutant concentrations.
 - 4. Cannot be used to model volume sources and has limited ability to model line sources.
 - 5. Older dispersion theory (e.g., Pasquil-Gifford-Turner stability classes versus Monin-Obukhov Similarity Theory).
- AERMOD has these advances but currently cannot appropriately characterize the marine boundary layer. It is only appropriate for over land applications.
- With the integration of the Coupled Ocean-Atmosphere Response Experiment (COARE) bulk flux algorithm, AERMOD can be used for offshore/overwater sources where shoreline fumigation and platform downwash are not critical considerations or are otherwise addressed, pending alternative model approval.
- Since 2019, there have been 11 alternative model approvals of AERMOD with COARE.
 - For more information and the bases/justifications for these alternative model approvals, please references the Model Clearinghouse Information Storage and Retrieval System (MCHISRS) at <u>https://cfpub.epa.gov/oarweb/MCHISRS</u>, search term "COARE"



National Ambient Air Quality Standards

- Air quality modeling is required as part of the permit application to:
 - Ensure the project will not cause or contribute to a violation of a National Ambient Air Quality Standard (NAAQS)
 - Ensure the project will not cause a violation of a Prevention of Significant Deterioration (PSD) increments
 - May also be required for:
 - Class I AQRV analysis
 - Additional impact analysis

Pollutant [links to historica of NAAQS revi	ıl tables ews]	Primary/ Secondary	Averaging Time	Level	Form
<u>Carbon Monoxide (CO)</u>		primary	8 hours	9 ppm	Not to be exceeded
			1 hour	35 ppm	more than once per year
Lead (Pb)		primary and secondary	Rolling 3 month average	0.15 μg/m ^{3 <u>(1)</u>}	Not to be exceeded
<u>Nitrogen Dioxide (NO₂)</u>		primary	1 hour	100 ppb	98th percentile of 1- hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb ②	Annual Mean
Ozone (O ₃)		primary and secondary	8 hours	0.070 ppm ⁽³⁾	Annual fourth- highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	$\mathrm{PM}_{2.5}$	primary	1 year	9.0 μg/m³	annual mean, averaged over 3 years
		secondary	1 year	15.0 μg/m³	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 μg/m³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO <u>_</u>)		primary	1 hour	75 ppb (4)	99th percentile of 1- hour daily maximum concentrations, averaged over 3 years
		secondary	3 hours	0.5 ppm	Not to be exceeded more than once per



Project Domain: Receptors

- Inner-OCS areas receive ambient air quality protections
- Model receptor grid must cover areas of ambient air to assess project impacts
- Compliance with air quality standards must be shown for both the construction phase and operations phase emissions

Ambient air boundary at OCS source – first "line" of receptors in the model:

- In periods of construction or heavy repair:
 - Temporary safety zone enforced by Coast Guard (33 C.F.R. part 147)
- Operations and maintenance periods:
 - Ambient air boundary is the edge of hull of the ship/platform
 - In modeling, receptors must cover area of highest concentration





Project Domain: Sources

NAAQS assessment:

- Project source units (OCS source + support) modeled
 - Simplified approach: conservative simplified domain, multiple overlapping worse-case scenarios modeled
 - Refined approach: continuous single scenario, time-varying emissions throughout the project
- Phase I: Single Source Impact Analysis
 - Project impacts compared to Significant Impact Levels (SILs)
- Phase II: Cumulative Impact Analysis
 - Background concentrations included
 - Nearby sources included if not represented by monitoring data
 - Comparison of cumulative impact to NAAQS

PSD increment assessment:

- Project sources modeled same approaches as used for NAAQS analysis
- All other increment-consuming sources in the region should be accounted for in the modeling also
- Amount consumed:
 - Is unique to each receptor
 - Based on consumption above a baseline concentration via a trigger date



Source scenario plot example. South Coast Wind Energy LLC modeling protocol. Developed by AECOM



Photo credit: Falcon Global, LLC (Seacor Marine, LLC) from https://www.dco.uscg.mil/



Project Domain: Class I Areas

Class I area analysis requirements:

- Class I PSD increment analysis
- Air Quality Related Values (visibility, deposition)
 - Analysis directed by Federal Land Managers (FLMs)
- Demonstration may be needed as part of the temporary emissions full-analysis exemption

Analysis required depends on distance of project to the Class I area:

- Tier 1: initial "simple" screening
- Tier 2: refined "complex" screen modeling
- Tier 3: full cumulative modeling (alternative model likely needed)





Meteorology

- Hourly meteorological dataset needed to conduct regulatory dispersion modeling
- Three options:
 - 1. Public datasets collected by weather buoy (NOAA, etc.):
 - 5 yr. dataset
 - Existing buoys, but dataset may be incomplete or unrepresentative
 - 2. Site-specific weather buoy deployed by source
 - 1 yr. dataset, PSD-quality rated (managed under an EPA-approved QAPP)
 - 3. Weather model -derived prognostic dataset
 - 3 yr. dataset
 - Prognostic model evaluation report required showing good performance
- All three dataset options can be used with EPA regulatory and approved alternative models



42°N

40°N

38°N

36°N

Sciences. https://marine.rutgers.edu/



Prognostic Meteorology

- Weather-model derived prognostic dataset
 - EPA's MMIF tool used to extract meteorology for regulatory dispersion modeling
 - 3 yr. dataset required
 - Prognostic model evaluation report showing good performance required



- 3-D state-of-the-art weather model output
- High-resolution (1 to 12 km), using inputs from:
 - Global weather models
 - Observations
 - Sea-surface temp.
 - Snow/land-surface
- EPA rules and guidance on use

Where to obtain a prognostic dataset?

- EPA annual continental U.S. WRF model runs (12 km) available
- Educational/research/government organizations
- Air quality/meteorological consulting firms



Prognostic model dataset evaluation report:

- Provides sufficient evidence the weather model is accurate
- Evaluate parameters: wind, temperature, precipitation, sea surface temperatures
- Quantitative statistical comparison of model vs. meteorological measurements
- Qualitative evaluation of wind climate and representativeness





Example: Observed (left) vs. modeled wind climate (right)





Air Quality Analysis Requirements

- Only applicable to OCS Projects subject to PSD.
- Requirements at 40 C.F.R. §§ 52.21(k), (m) and (o).
 - 40 C.F.R. 52.21(k) Modeling analysis to demonstrate compliance with the NAAQS and PSD increments
 - 40 C.F.R. 52.21(m) Preconstruction ambient monitoring requirements
 - **40 C.F.R. 52.21(o)** Additional impact analysis (i.e., impacts on growth, soils and vegetation, and visibility impairment).
- Purpose is to determine the impact of the new or modified OCS projects on ambient air quality including the impacts due to the construction phase.



Air Quality Modeling Analysis Process



* State, local, and tribal permit authorities may have specific regulations that require alternative or additional analyses and processes for assuring NAAQS and PSD Increments compliance. ** Any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact on such area equal to or greater than 1 µg/m³ (24-hour average), is considered significant and should proceed with an appropriate air quality assessment. *See* 40 CFR 52.21(b)(23)(iii).



Preconstruction Ambient Monitoring Requirements

- Required under the Clean Air Act to evaluate the air quality in the area where a source is proposing to build/expand.
- Compare to the Significant Monitoring Concentrations (SMC) found in 40 C.F.R. part 52.21(i)(5)(i) for exemption.
 - Note court decision vacated SMC for PM2.5. The SMC is zero, not exempted. While only PM2.5 SMC is vacated, it is recommended to include existing ambient data concentration in the application.
- May use 3 years of "representative," current, existing data that meets QA/QC requirements as a surrogate.



- Can also serve as representative background monitor for compliance demonstration, but it doesn't necessarily have to be the same ambient monitor or dataset.
 - Typically, remote/rural on-land ambient air monitor used for representative offshore location.
 - Advantageous if the representative monitor is located near a port to further capture marine vessel activity as part of the background.



Additional Impact Analysis

- Assesses impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification.
 - Vegetation analysis is often not necessary for OCS sources.



Exemption from PSD Air Quality Analyses Req.

- Under 40 C.F.R. 52.21(i)(3), some emissions may be exempted from the air quality analyses required under the PSD program if the emissions:
 - Would impact no Class I area and no area where an applicable increment is known to be violated and would be temporary.
- For the "would impact no Class I area" criterion, EPA considers a modeled impact less than the Class I Significant Impact Level (SIL), as well as confirmation from the Federal Land Manager that there would be no potential adverse impact on an Air Quality Related Value (AQRV), as adequate to preliminarily conclude that there would be no impact on a Class I area.
- To meet the "would impact... no area where an applicable increment is known to be violated," criterion, the applicant must confirm either that there are no known areas in the state that are in violation of an applicable PSD increment or that the source would not impact any such area.
- EPA regulations do not define "temporary" emissions but generally those are emissions that occur for less than 2 years. Some states, such as New York, define "temporary" emissions as those that occur for less than 1 year.
- Emissions during the construction phase of an OCS source may qualify for this exemption.
 - Sources locating close to Class I areas (e.g., the Brigantine Wildlife Refuge, New Jersey) and/or offshore states like New York that limit the duration of emissions that may be treated as "temporary" may not meet the exemption regulatory criteria.



OCS Source Construction Phase Model Configuration

- Two general approaches have been taken by OCS projects to date:
 - Cluster all the emissions in a single area as to create a "worst case day" for short term impacts.
 - Simple but conservative.
 - The spatial and temporal nature of the emissions may be considered by using the variable emission option in AERMOD, allows the emissions to be varied in sequence in a more logical pattern (e.g., model emission activities on first day, move emission activities to the next location the next day, etc.) until the entire 2-to-3-year construction scenario is complete.
 - More refined but extremely large file size, long runtimes.
- In both approaches, emissions are modeled continuously throughout the meteorological data period (~ 3 to 5 years) to capture the worst-case day/year. While emissions are located at a location only for a few days, full meteorological period must be modeled to allow for operational flexibility.
- Receptor placement beginning from any safety zone around the OCS source (typically 500m) overwater and extending outward.
- Close coordination between the applicant and the permitting authority strongly recommended.



Modeled Air Emissions Sources

- Air emissions come from vessels used to construct the various components of the OCS project, such as:
 - Wind Turbine Foundations
 - Wind Turbine Generators
 - Offshore Substations (OSS) Foundations
 - Offshore Substations
 - Scour Protection
 - Cable laying inter-array and offshore export
 - Horizontal Directional Drilling
 - Transiting Emissions

- And each activity requires special vessels with ~ 1 to 6 engines each. Special vessels include:
 - Heavy Lift Vessels
 - Feeder barges
 - Fuel Bunkering
 - Tugs
 - Crew transfer Vessels, Special Operation Vessels
 - Marine Mammal Mitigation Vessels
 - Bubble Curtains
- Air emissions also occur during the commissioning and operation and maintenance phases of an OCS project.



OCS Source Operation and Maintenance Phase Model Configuration

- This is the longer-term phase.
- PSD exemption for temporary emissions not applicable.
- Model source configuration similar to construction.
- Contains many fewer emission sources during typical normal operation than the construction phase.
- Some Wind Turbine Generators may include diesel generators.
- Need to account for crew transfer vessels and or Special Operation Vessels.
- Remember: Must also account for major repairs which could include heavy lift vessels and other construction vessels.



Intermittent Emissions and Overlapping Impacts

- Construction emissions are large; some the order of a several 1000 tons per year.
- Some believe that the spatial and temporal nature of the moving point sources may be represented by a guidance memo which allows short term, intermittent emissions to be smooth over the year (see: <u>"Additional Clarification Regarding Application of Appendix W</u> <u>Modeling Guidance for the 1-hour NO2, National Ambient Air Quality Standard</u>", March 2011)
- However, that guidance was meant to represent sporadic, infrequent emissions of a short duration such as an emergency generators.
- In the case of construction emissions, the emissions are transient but continuous for a period of several years impacting the same receptors to varying degrees.
- The activities are spread across the wind development area but only a mile or so apart. Cannot rule out non-overlapping impacts where impacts extend to these distances.
- Perhaps it may apply to the normal operation phase. Consult with Regional office.



Most Significant Impacts during Construction Phase

- Conservative approaches for modeling 1-hour NO2 NAAQS, 24-hour PM2.5 PSD Class II increment, and AQRVs impacts (visibility and acid deposition) have been a challenge to adequately show compliance.
- Novel approaches that have been proposed by applicants and accepted by EPA include:
 - 1-hour NO2 using a combination of construction plus O&M emissions and combine for 3-year average.
 - PM2.5 vessels that are present for less than a day can sequence emissions around a 4-hour block. Cannot average across non-operating hours unless permit condition.
- The maximum NAAQS and PSD increment impacts tend to be overwater in the nearfield but can remain above "significant impact levels" on land. If so, need to address onshore impacts.
- Crucial to keep discussions ongoing with the Federal Land Manager of Class I area to develop mitigation measures, if necessary, to reduce the impacts to the Class I area AQRVs.



OCS Air Permitting Modeling Recap

- Regulatory air quality modeling follows the *Guideline on Air Quality Models* (i.e., Appendix W).
- A modeling protocol is an essential piece in this process.
- Frequent communication with the permitting authority is critical.
- Permitting authority is always available to provide guidance and feedback on modeling inputs and compliance demonstration.

Appendix



Emissions Calculations

- Appropriate Data Sources for Calculating Emissions from OCS Sources in order of accuracy, consult with EPA before using:
 - Vessel-specific information (i.e. stack test data for the units that will be used or units like those that would be used)
 - Manufacturer's emission factors
 - Associated engine-based standards
 - Emission factors (e.g., 2022 Port Emissions Inventory Guidance)



More Details on Control Technology Exemption (40 C.F.R. 55.7)

- The source shall comply with a substitute requirement(s), equal to or as close in stringency to the original requirement as possible, as determined by the Administrator or delegated agency (40 C.F.R. 55.7(e)(1)).
- An OCS source located in the inner OCS shall offset residual emissions resulting from the grant of an exemption request in accordance with the requirements of the Act and the regulations thereunder (40 C.F.R. 55.7(e)(2)).
 - If offsets are required in the COA, a new source shall obtain offsets based on the applicable requirements of the COA.
 - If offsets are not required in the COA, a new source shall comply with an offset ratio of 1:1.
 - An existing OCS source shall comply with an offset at a ratio of 1:1.
- An OCS source located in the outer OCS shall obtain emission reductions at a ratio determined by the Administrator to be adequate to protect State and Federal ambient air quality standards and to comply with part C of title I of the Act (40 C.F.R. 55.7(e)(3)).
- 40 C.F.R. 55.7 process is subject to the administrative and public participation requirements at 40 C.F.R. part 124 and 40 C.F.R. 55.6. If the OCS permitting programs has been delegated, the applicable procedures under the delegation apply (40 C.F.R. 55.7(f)).



Monitoring, reporting, inspections, and compliance (40 C.F.R. 55.8)

- Monitoring or reporting and inspections may be required pursuant to section 114 of the Act and the regulations thereunder. Sources shall also be subject to the requirements set forth in 40 C.F.R. §§ 55.13 and 55.14.
- All monitoring, reporting, inspection and compliance requirements authorized under the Act shall apply.
- The Administrator or the delegated agency shall consult with [BSEE] and the U.S. Coast Guard prior to inspections. This shall in no way interfere with the ability of EPA or the delegated agency to conduct unannounced inspections.



Enforcement (40 C.F.R. 55.9)

- OCS sources shall comply with all requirements of 40 C.F.R. part 55 and all permits issued under this part. Failure to do so is a violation of CAA § 111(e).
- All enforcement provisions of the CAA (including CAA sections 113, 114, 120, 303 and 304) shall apply to OCS sources.
- If a facility is ordered to cease operation of any piece of equipment due to enforcement action taken by EPA or a delegated agency under part 55, the shutdown will be coordinated by the enforcing agency with the Bureau of Ocean Energy Management, Regulation and Enforcement and the U.S. Coast Guard to assure that the shutdown will proceed in a safe manner.



OCS Air Permit Fees (40 C.F.R. 55.10)

Inner OCS Sources

- EPA will calculate and collect operating permit fees from OCS sources in accordance with the requirements of <u>40 C.F.R. part 71</u> (40 C.F.R. 55.10(a)(1)).
- EPA will collect all other fees from OCS sources calculated in accordance with the fee requirements imposed in the COA (40 C.F.R. 55.10(a)(2)).
- Upon delegation, the delegated agency will collect fees from OCS sources calculated in accordance with the fee requirements imposed in the COA (40 C.F.R. 55.10(a)(3)).

Outer OCS Sources

• EPA will calculate and collect operating permit fees from OCS sources in accordance with the requirements of <u>40 C.F.R. part 71</u> (40 C.F.R. 55.10(b)).