



REGION 1

BOSTON, MA 02109

**U.S. Environmental Protection Agency
Region 1**

**Outer Continental Shelf Preconstruction Air Permit
Sunrise Wind Farm Project
Sunrise Wind, LLC**

**Offshore Renewable Wind Energy Development
Response to Comments on EPA Permit Number: OCS-R1-06**

Introduction

On December 19, 2023, the U.S. Environmental Protection Agency (“EPA”) published the Sunrise Wind “Notice of Draft Permit” in *The Boston Globe*, a daily newspaper in Suffolk County, Massachusetts, and in *The Providence Journal*, a daily newspaper in Providence County, Rhode Island. The notice stated that the permit and fact sheet are available for public review at the U.S. EPA Region 1 Office located at 5 Post Office Square in Boston, MA, and on the EPA Region 1 Web Page: <https://www.epa.gov/caa-permitting/caa-permitting-epas-new-england-region>. The 37-day public comment period on the proposed permit action commenced December 19, 2023, and ended on January 24, 2024. EPA received comments during the public comment period on the draft permit. In addition, EPA held a virtual public hearing on January 24, 2024. No verbal comments were received during the public hearing. The EPA considered all comments submitted during the public comment period in its final decision-making process for the Sunrise Wind permit.

After a review of the comments received, the EPA has made the decision to issue a final permit, with some revisions, as described below. Per 40 C.F.R. §124.17, at the time that any final permit decision is issued, EPA is required to issue a response to those comments received during the

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public comment period. This response specifies which provisions, if any, of the permit have been changed in the final permit decision, and the reasons for the change; and briefly describes and responds to all significant comments on the permit raised during the public comment period, or during any hearing. Any documents cited in the response to comments are included in the administrative record for the final permit decision. If new points were raised or new material were supplied during the public comment period, EPA has documented its response to those matters by adding new materials to the administrative record.

The final permit is substantially the same as the permit that was available for public comment. Although the EPA's decision-making process benefitted from the comments and additional information submitted, those comments resulted in only minor clarifications and revisions to the permit. In addition to the permit changes made due to the comments received, EPA made minor administrative revisions to the permit that do not significantly alter the terms and conditions of the permit. These improvements and changes are detailed in this document and reflected in the final permit. EPA notes under each comment whether any changes were made to the final permit because of that comment. The analyses underlying these changes are explained in the responses to individual comments that follow.

The final permit, responses to comments, and a link to the administrative record are available on EPA Region 1's web page: <https://www.epa.gov/caa-permitting/epa-issued-caa-permits-region-1>. The EPA is sending the responses to comments and the final permit to the commenters and individuals who requested a copy. Hard copies may be obtained by request. To request a hard copy, refer to the contact information below:

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The complete text of each comment as submitted, and a complete copy of the transcript from the public hearing, are located within the administrative record and with hard copies available by request. The administrative record can be accessed online at <https://www.regulations.gov> ([Docket ID# EPA-R01-OAR-2023-0525](https://www.regulations.gov)).

Revisions to the permit and fact sheet are explained in this Response to Comments document. EPA is also providing a redline-strikeout version of the final permit so that readers may track changes made between the draft and final permit.

The only organization that submitted comments on the permit was:

- Sunrise Wind, LLC (comments received on January 23, 2024)

Response to Comments

The following section contains the comments received during the public comment period on the Sunrise Wind draft permit, EPA’s responses to those comments, and, if applicable, any revisions made in the final permit decision.

Revisions to the draft permit are indicated in this document. A redline-strike-out version of the final permit, as compared to the draft permit, is included in the administrative record of this action.

A. Comments from Sunrise Wind, LLC (SRW)

Permit Section II

SRW Comment 1:

Referenced Text: The Project is required to apply BACT to all the new emission units proposed in this Project which emit NO₂, CO, PM₁₀, PM_{2.5}, SO₂, and GHG. SRW is required to apply LAER to all the new emission units proposed in the Project which emit NO_x and VOC. The following tables are a narrative description of the proposed equipment in the permit application for the SRW Project. The list of equipment and descriptions are intended for informational purposes only.

Comment: Although this Section is marked as “Informational Purposes Only,” there is concern that the list of sources is limited to those identified as OCS Sources only and omits all other emission units; yet the basis of the permit applicability as well as the impact analysis required in the permitting process depends upon the total emissions of all sources (OCS and non-OCS sources) while within 25 nautical miles (NM) of the OCS Facility. The included text is not clear that the majority of vessels required to construct and operate the Project are not shown in this list, and SRW has accounted for the emissions of all of those vessels in the potential-to-emit (PTE) and air quality impact analysis. Previous OCS air permits issued by EPA Region I have included a list of all sources “servicing or associated with” the OCS Facility, not just the OCS Sources themselves (e.g., see the table for EUG 2 in Section II of the OCS Air Permit for Revolution Wind, LLC, OCS-R1-05, issued September 28, 2023).

In order to provide additional clarification on this, SRW requests the following modification to the above text.

Suggested Text: The Project is required to apply BACT to all the new emission units proposed in this Project which emit NO₂, CO, PM₁₀, PM_{2.5}, SO₂, and GHG. SRW is

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required to apply LAER to all the new emission units proposed in the Project which emit NO_x and VOC. The following tables are a narrative description of the proposed equipment **categorized as OCS Sources** in the permit application for the SRW Project. **Additional equipment and vessels, not categorized as OCS Sources, will also be associated with the construction and operation of the Facility. Emissions from these sources have been included in determining the Facility’s potential-to-emit and in the impact analysis supporting this permit.** The list of equipment and descriptions are intended for informational purposes only.

Comment (Cont.): Additionally, the table for EUG 2 includes the activity “Offshore Export Cable including OCS Interlink,” which is how the activity is listed in Appendix A of the SRW OCS Air Permit Application. However, the inclusion of the “OCS Interlink” reflects an earlier version of the Project Design Envelope and is no longer part of the Project. This change does not affect any OCS Sources or emissions calculations. This activity can be amended to be simply “Offshore Export Cable.”

Finally, the table for EUG 3 lists 1 medium voltage (MV) gas-insulated switchgear (GIS) and 1 high voltage (HV) GIS; however, the Project’s Offshore Converter Station (OCS-DC) will house a total of 3 GIS: 1 MV GIS and 2 HV GIS (see comment 2.2.3.1 for more details). This table can be amended to include the 2 HV GIS. Additionally, there will be a total of 8,185 lbs (3,713 kg) of SF₆ on the OCS-DC distributed between these 3 GIS¹, which is slightly more than the amount listed in Table 9 of the Fact Sheet.

EPA Response to SRW Comment 1: EPA has made clarifying changes to the description within Section II. of the permit. Specifically, EPA has clarified that best available control technology (BACT) and Lowest Achievable Emissions Reductions (LAER) apply only to those vessels that meet the definition of an OCS source, and that there are additional vessels and equipment which while not listed in the tables below, are included in the OCS Facility’s potential to emit and air quality impact analysis.

Revised Text: The Project is required to apply BACT to all the new emission units that meet the definition of an OCS source and proposed in this project which emit NO₂, CO, PM₁₀, PM_{2.5}, SO₂, and GHG. SRW is required to apply LAER to all the new emission units that meet the definition of an OCS source and proposed in the project which emit NO_x and VOC. The following tables are a narrative description of the proposed equipment that meet the definition of an OCS source in the permit application for the SRW Project. Additional vessels servicing or associated with an OCS Facility, when either at the OCS

¹ On February 12, 2024, EPA reached out to SRW for specific information related to this comment. Per the response from Sunrise Wind, LLC on February 16, 2024, “This amount (8,185 pounds) is split among three switchgear assemblies as follows: MVAC contains 5,227 pounds, HVAC contains 2,268 pounds, and HVDC contains 689 pounds.”

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Facility or enroute to or from the OCS Facility (within 25 NM of the centroid), while not listed in the tables below, are included in the OCS Facility's potential to emit and air quality impact analysis supporting this permit. The list of equipment and descriptions are intended for informational purposes only.

Second, EPA has amended the name of the activity "Offshore Export Cable including OCS Interlink," to now state simply "Offshore Export Cable."

Lastly, EPA has amended the information in the table for EUG 3² to include the 2 HV GIS. EPA also acknowledges that 8,185 lbs (3,713 kg) of SF₆ on the OCS-DC is distributed between these 3 GIS³.

Permit Section IV

SRW Comment 2:

Referenced Text: Emissions from the SRW Project will be limited by, and contribute to, the Facility-wide emission limits on NO_x and VOC identified in this Section. For purposes of compliance with the Facility-wide emission limits in this Section, actual emissions of NO_x and VOC shall include emissions during operation from the following: engines located on the OCS-DC and/or WTG(s), engines on vessels that meet the definition of an OCS Source, and engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility's centroid.

Comment: The recent change in the EPA's approach to consider both Construction and Operations and Maintenance (O&M) Phases proceeding in parallel results in the need for further clarifications in the draft Permit. The Application and, importantly, the calculation of PTE in the Application, assumes that the O&M Phase begins after the Construction Phase ends. We are concerned that the Permit does not explicitly specify that the emissions accounting for the O&M Phase, when running in parallel to the Construction Phase, should include only those emissions directly associated with the portion(s) of the Facility that are actually in operation. For instance, emissions from a vessel performing servicing activities on an operating wind turbine generator (WTG) in the morning and performing construction activities on another facility component in the afternoon should only be included in the Operational Phase emissions for the servicing activities in the morning. Emissions from the OCS-DC engines, which are primarily supporting commissioning activities during the construction phase but would also simultaneously serve to provide emergency power to those portions of the Facility that are in

² Permit No. OCS-R1-06 - Section II. Equipment (Informational Purposes Only)

³ MV and HV SWGs on the OCS-DC have a BACT limit to not exceed a 0.5% Leak rate of SF₆, which is equivalent to emissions rate not to exceed ≈ 41 lbs of SF₆ per year.

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commercial operation, should not be considered operating emissions until the final WTG is producing commercial power. The likelihood of an emergency taking place which would require simultaneous commissioning and operational generator use is considered very low. To that end, we request that the EPA include the following clarification to the text.

Suggested Text: Emissions from the SRW Project will be limited by, and contribute to, the Facility-wide emission limits on NO_x and VOC identified in this Section. For purposes of compliance with the Facility-wide emission limits in this Section, actual emissions of NO_x and VOC shall include only emissions directly associated with the portions of the Facility that have entered commercial operation, consisting of the following: during operation from the following: engines located on the OCS-DC and/or WTG(s), engines on vessels that meet the definition of an OCS Source, and engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility and when those engines and vessels are engaged in Operational Phase activities, and engines on vessels ~~or~~ en route to or from the OCS Facility when those vessels ~~and~~ are within 25 NM of the OCS Facility's centroid. Emissions from engines on en route vessels are to be included only if the purpose of the vessel transit to/from the Facility is associated with Operational Phase activities. Emissions from the operation of engines located on the OCS-DC and/or WTG(s) are included only after completion of the Construction Phase.

Comment (Cont.): Additionally, the emission limits for the Project, provided in the table in this Section, reflect the Operations Period emissions provided via memo to the EPA on August 4, 2023; they do not reflect the Operations Period emissions that were included in the emissions inventory spreadsheet that was provided to the EPA on September 27, 2023, which are actually lower. For clarity, we propose that the EPA include a footnote on the Facility-Wide Emission Limits table that indicates the source of the emissions limits being from the August 4 memo.

EPA Response to SRW Comment 2: Consistent with EPA's previous response on page 47 of the Revolution Wind -Response to Comment Document⁴ (September 28, 2023), the facility-wide emission limits for Sunrise Wind are a mechanism for assuring continued compliance with the offset requirement and represents the worst-case potential to emit during the operational phase. As we stated in the South Fork Wind Supplemental Fact Sheet⁵ (October 20, 2021), EPA and state/local permitting authorities implementing the nonattainment new source review (NNSR) program have interpreted the NNSR CAA requirements as only requiring offsets for operating emissions, not construction emissions. Therefore, the facility-wide emission limits for NO_x and VOC are intended to include only those emissions associated with the post operational-phase activities and equipment.

⁴ <https://www.epa.gov/system/files/documents/2023-09/rw-ocs-air-permit-ocs-r1-05-rtc.pdf>

⁵ <https://www.epa.gov/system/files/documents/2021-10/sfw-supplemental-fs-10-20-2021.pdf>

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Furthermore, EPA expects the facility to be well within the facility-wide emission limits, since the PTE used to develop the facility-wide emission limits represent the potential to emit⁶ from the facility during operation (i.e., assumes the OCS facility is operating at the full build-out⁷). EPA agrees that a vessel performing servicing activities on an operating wind turbine generator (WTG) in the morning and performing construction activities on another facility component in the afternoon should only be included in the Operational Phase emissions for the servicing activities in the morning. Similarly, emissions from the OCS-DC engines that are supporting commissioning activities during the morning (for example) and then providing emergency power in the afternoon to a WTG which had already begun producing commercial power, would need only include those emissions associated with the operations portions (i.e., emissions occurring because of the emergency power scenario). As was mentioned in the comment, “the likelihood of an emergency taking place which would require simultaneous commissioning and operational generator use is considered very low”. However, if it was supporting an operational activity (i.e., before the last WTG to be constructed begins producing commercial power) then it should still be included in the compliance demonstration for purposes of the facility-wide emission limits for NO_x and VOC.

Revised Text: Emissions from the SRW Project will be limited by, and contribute to, the Facility-wide emission limits on NO_x and VOC identified in this Section. For purposes of compliance with the Facility-wide emission limits in this Section, actual emissions of NO_x and VOC shall include only those emissions associated with the operational phase during operation from the following: engines located on the OCS-DC and/or WTG(s), engines on vessels that meet the definition of an OCS Source, and engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility’s centroid.

The fact sheet is the mechanism used to cite the information relied upon and used to develop the SRW permit, i.e., the emission limits. It would be inappropriate to footnote such a reference in the body of the permit itself. Therefore, no changes to the permit have been made as a result.

Lastly, EPA would like to provide additional clarification on the submittal date cited in the fact sheet. In the case of the O&M emissions limits contained in the permit, the SRW fact sheet⁸ cites *February 24, 2023* as the corresponding submittal date. However, EPA acknowledges an error in the fact sheet in that the values in Table 2 are reflective of the revised submittal to EPA on August 4, 2023 rather than the submittal on February 24, 2023⁹. EPA does not make changes

⁶ Where potential to emit means the maximum annual rate, in tons per year.

⁷ Where any given O&M activity that occurred while construction activity was still ongoing would only represent a fraction of the build out and thus a fraction of the worst-case PTE estimate.

⁸ Table 2 on page 9 of the SRW Fact Sheet (December 19, 2023)

⁹ EPA acknowledges that the O&M emissions contained in the September 27, 2023, submittal present slightly lower emissions (in tons per year) than what is listed in the fact sheet. However, in conversations proceeding that

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to fact sheets based on the comments received during the public comment period. While EPA acknowledges that the error in the fact sheet, no revisions to the fact sheet have been made.

SRW Comment 3:

Referenced Text: Beginning on the Operational Phase Start Date, at the end of each operating day, the Permittee shall incorporate daily emissions calculated in Section IV(A)(6)(i) into the 365-day total (in units of tons) for NO_x and VOC. These emissions shall be summed from all the emission sources defined in Section IV(A)(6) for determining compliance with the facility-wide emissions cap.

Comment: SRW wishes to have clarification added to this Section that emission limits are in effect only during the “Operational Phase.” As such, only emissions arising from Operational Phase activities are limited, while emissions from Construction Phase activities that may be occurring simultaneously are not part of this limit. SRW proposes the following modification to the text.

Suggested Text: Beginning on the Operational Phase start date, at the end of each operating day, the Permittee shall incorporate daily emissions calculated in Section IV(A)(6)(i) into the 365-day total (in units of tons) for NO_x and VOC. These emissions shall be summed from all the emission sources defined in Section IV(A)(6) when those sources are engaged in Operational Phase activities for determining compliance with the Facility-wide emissions cap.

EPA Response to SRW Comment 3: EPA agrees that this was the intent for the condition and has revised it as shown below.

Revised Text: Beginning on the Operational Phase Start Date, at the end of each operating day, the Permittee shall incorporate daily emissions calculated in Section IV(A)(6)(i) into the 365-day total (in units of tons) for NO_x and VOC. These emissions shall be summed from all the emission sources defined in Section IV(A)(6) when those sources are engaged in Operational Phase activities for determining compliance with the Facility-wide emissions cap.

SRW Comment 4:

September 27, 2023, submittal (See the September 15, 2023, Record of Conversation between EPA, Sunrise Wind, AKRF, and Stantec), it was not brought to EPA’s attention that any changes were being sought on the O&M portion of the Project. Rather the construction emissions were identified to have increased due to changes in construction timeline and contracting vessels, where modeling concerns were the primary focus of that resubmission. Therefore, EPA did not review any revised potential to emit (in tons per year) emissions from the operational phase.

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Referenced Text: (ii within each numbered subsection) The total emissions associated with the use of a vessel with engine(s) that meet the most stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard.

Comment: SRW requests that this text in each numbered subsection be clarified to include specific information on the required emissions comparison. Proposed text for each subsection ii is included below.

Suggested Text: The total emissions of any of the pollutants NO_x, HC, CO, and PM as calculated on a per-pollutant basis, associated with the use of a vessel with engine(s) that meet the most stringent emission standard would be greater than the total emissions of the same pollutant on a per-pollutant basis associated with the use of the vessel with engine(s) that meet the next most stringent emission standard.

Comment (Cont.): Please also note that the section numbering in this Section should be corrected. Starting with Section IV(C)(4), which should be numbered IV(C)(3), all the subsections which follow should also be renumbered to be one lower; the final section number would therefore be IV(C)(8). References to other subsections within these subsections will also need to be updated accordingly. *The below references refer to their current numbering, not the corrected numbering.*

EPA Response to SRW Comment 4: EPA has revised the permit condition to include the specific pollutants on the required emissions comparison since the engines are all diesel-fired with NO_x levels high enough to make NO_x the controlling pollutant of concern. For purposes of determining total emissions, in general, NO_x is the pollutant that would be expected to result in the highest emissions from the diesel-fired engines and would be sufficient for triggering this provision.

Revised Text: The total emissions of any of the pollutants: NO_x, HC (as a surrogate for VOC), CO, and PM calculated on a per-pollutant basis associated with the use of a vessel with engine(s) that meet the most stringent emission standard would be greater than the total emissions of the same pollutant on a per-pollutant basis associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee shall include the emissions of the vessel that would occur when the vessel would be in transit to the WDA from the vessel's starting location.

Finally, EPA has revised the numbering references.

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SRW Comment 5:

Referenced Text: Marine Engines with a displacement ≥ 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels otherwise not subject to Section IV(C)(2) must meet the applicable emission standards for NO_x and PM at 40 C.F.R. part 60, subpart IIII.

Comment: SRW believes the reference to Section IV(C)(2) in this text was intended to refer to Section IV(C)(1). As such, we propose the following revision.

Suggested Text: Marine Engines with a displacement ≥ 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels otherwise not subject to ~~Section IV(C)(2)~~ Section IV(C)(1) must meet the applicable emission standards for NO_x and PM at 40 C.F.R. part 60, subpart IIII.

EPA Response to SRW Comment 5: EPA agrees with the comment and has revised the numbering reference.

Revised Text: Marine Engines with a displacement ≥ 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels otherwise not subject to Section IV(C)(1) must meet the applicable emission standards for NO_x and PM at 40 C.F.R. part 60, subpart IIII.

SRW Comment 6:

Referenced Text: [...] marine engine emission standards (for Category 1 and Category 2 Marine Engines) for NO_x, HC, CO, and PM contained within 40 C.F.R. part 1042.

Comment: The final sentence in each of these sections refers to Category 1 and Category 2 engine emission standards, yet these sections are for engines with a displacement ≥ 30 L/cylinder, that is, Category 3 engines. Additionally, 40 CFR 1042 does not include a PM standard for Category 3 engines. As such, SRW proposes the below revision in each section.

Suggested Text: [...] marine engine emission standards (for ~~Category 1 and Category 2~~ Category 3 Marine Engines) for NO_x, HC, and CO, ~~and PM~~ contained within 40 C.F.R. Part 1042.

EPA Response to SRW Comment 6: EPA agrees with the comment and has revised the Specific Condition of the permit accordingly. In addition, when determining the total emissions associated with the use of a vessel the permittee only need consider NO_x, HC (surrogate for VOC) and CO as specified in the subparagraph within Section IV.C.5. and Section IV.C.6.

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Revised Text: At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 2 marine engine emission standards (for Category 3 Marine Engines) for NO_x, HC, and CO contained within 40 C.F.R. part 1042.

SRW Comment 7:

Referenced Text: Detected leaks of SF₆ from switchgears shall be repaired within five (5) days of discovery. The Permittee shall document and maintain records of the equipment repaired including but not limited to the estimated time of leakage and volume of gas leaked during that time.

Comment: In the memo sent to the EPA on November 14, 2023, SRW outlined justification as to why a precise timeline for repair of detected SF₆ leaks was not possible, which included adverse weather conditions, mobilization logistics, and staff availability for a repair in a remote offshore location; dependency on spare part availability for the specialized GIS on the OCS-DC; and the unknown level of difficulty in finding the leak and repairing it safely without full de-energization of the wind farm. Rough weather conditions and a limited number of vessels may impede the ability of crews to access the site within 5 days in all circumstances. In the Fact Sheet, the EPA concluded that the November 14 memo did not provide adequate justification for excluding the 5-day period, further citing that, “this response time has been demonstrated for a similar type of source (i.e., other OCS offshore windfarms)” (Fact Sheet pg. 47). SRW has reviewed the previously finalized and issued OCS Air Permits for offshore wind farms (Cape Wind, South Fork Wind, Vineyard Wind 1, and Revolution Wind), and the 5-day repair period is only included in the OCS Air Permit for Revolution Wind (OCS-R1-05). However, Revolution Wind has not yet been constructed or operated, and so the feasibility of the 5-day repair period included in that permit has not yet been demonstrated.

SRW would like to provide additional context as to the potential magnitude and extent of a potential leak of SF₆ from the GIS based on the design of each GIS. The total SF₆ within the GIS (8,185 lb, 3,713 kg) is distributed between:

- A 66 kilovolt (kV) MV alternating current (AC) GIS;
- A 330 kV HVAC GIS; and
- A 320 kV HV direct current (DC) GIS.

Each of the three GIS is comprised of multiple separate chambers, or equipment components, that contain SF₆. The 66 kV MVAC GIS has 128 chambers, the 330 kV HVAC GIS has 27 chambers, and the 320 kV HVDC GIS has 20 chambers, for a total of 175 chambers that are each hermetically sealed from adjacent components. The largest such chamber within each GIS, the circuit breakers themselves, contain 42 kg of SF₆ at 490 kilopascal (kPa) of pressure. The low-

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pressure alarm will signal an initial leak when the pressure has reduced to 460 kPa, corresponding to the loss of 2.5 kg of SF₆, which is less than 6 percent of the SF₆ within this chamber, less than 1 percent of the total SF₆ on the HVDC GIS, and less than 0.1 percent of the total SF₆ on the OCS-DC.

SRW is committed to addressing any SF₆ leak and having the leakage under control as soon as possible following notification of an alarm condition; however, guaranteeing a repair can be completed within 5 days of detection is not feasible. There is precedent for the EPA to include a “tiered” repair timeline to allow for repairs to be made as soon as possible within defined deadlines, but also allow for flexibility given the logistical and safety challenges. One example is NSPS Subpart OOOOa, which applies to crude oil and natural gas facilities; specifically, the repair of fugitive VOC emissions outlined in 60 CFR § 60.5397a(h)(1-4), which allows for an initial repair within 30 days, followed by completion of the repair within 30 days of the initial repair, with an absolute timeline limit of 2 years if the initial two repairs are not technically or safely feasible. Granted, this is for a landside repair of a different pollutant in a different industry, but it provides a reasonable template for use here. Given the sensitivity of the release of this greenhouse gas with a high global warming potential, while also recognizing the unique challenges of this offshore environment, SRW proposes the following revision.

Suggested Text: A first attempt at repair of detected leaks of SF₆ from switchgears shall be repaired ~~made~~ within ~~five (5)~~ 14 calendar days of discovery.

The repair shall be completed as soon as practicable, but no later than 30 calendar days after the first attempt. If the repair is technically infeasible, would require taking the windfarm or portions thereof offline to complete, or is unable to be completed due to safety or weather concerns, the repair must be completed during the next scheduled maintenance period of the OCS-DC, or within 6 months, whichever is earliest. To the extent feasible, the Permittee shall seek to minimize or contain the leak until the repair has been successfully completed.

The Permittee shall document and maintain records of the equipment repaired including but not limited to the estimated time of leakage and volume of gas leaked during that time.

EPA Response to SRW Comment 7:

First, EPA acknowledges that these offshore windfarms are still rapidly developing as the projects are built and operated. EPA is committed to improving the permit conditions in the air permit consistent with CAA requirements. While it is true that Revolution Wind¹⁰ has not yet

¹⁰ 5-day repair period is included in the OCS Air Permit for Revolution Wind (OCS-R1-05).

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been constructed or operated yet, a final permit has been issued to that facility containing equivalent requirements to the ones proposed in the SRW permit, and in general, is seen as sufficient justification to assume the requirement is technically feasible.¹¹ The purpose of the condition¹² is to minimize the amount of sulfur hexafluoride emitted from gas-insulated switchgears through the requirements to investigate and repair (or otherwise contain) detectable leaks within the specified timeframe. This condition is intended to apply during the normal operation of the windfarm, i.e., where the facility would be required to respond to a leak that is above the detectable limits (i.e., a loss less than 0.1 percent of the total SF₆ on the OCS-DC¹³) but could otherwise still comply and remain below the applicable annualized BACT leak rate, during normal operation. EPA is proposing to add to the condition that “containing the leak within 5 days of detection” as also being sufficient to satisfy the intent of the condition (i.e., Repairing or containing emissions of SF₆ to the atmosphere when above the detectable limit within 5 days of detection during what is otherwise considered normal operations).

Second, the facility has stated that guaranteeing a repair can be completed within 5 days of detection is problematic in certain situations, citing specific logistical and safety challenges¹⁴. This condition is not intended to override any response protocols that would be otherwise necessary to not compromise health or safety concerns. Therefore, rather than remove the 5-day response time altogether¹⁵, EPA has added a provision similar to the procedures set forth by the corresponding onshore area (COA) and contained in 310 CMR 7.72(7)¹⁶, to allow the applicant to request the allowance of longer timeframe for those specific circumstances where a leak cannot be repaired or contained within the 5 days due to unforeseeable emergency events. For the EPA to determine that additional response time is warranted, the facility will be required to submit the specific information outlined below.

Revised Text: Detected leaks of SF₆ from switchgears shall be repaired or contained within five (5) days of discovery. The Permittee shall document and maintain records of

¹¹ See page 82 of the <https://www.epa.gov/sites/default/files/2015-07/documents/1990wman.pdf>

¹² See Section IV(D)(2) of Permit No. OCS-R1-06

¹³ The specific details on the magnitude and extent of a potential leak of SF₆ from the GIS based on the design of each GIS for this Project was provided as part of the comment. Per the information that was provided, a detectable leak, via the low-pressure alarm, will be initially signaled when 2.5 kg of SF₆ is leaked from the circuit breaker chamber—which equates to a loss less than 0.1 percent of the total SF₆ on the OCS-DC.

¹⁴ The permittee is proposing a longer time frame for responding “If the repair is technically infeasible, would require taking the windfarm or portions thereof offline to complete, or is unable to be completed due to safety or weather concerns.”

¹⁵ Otherwise intended to apply during normal operation.

¹⁶ Per 310 CMR 7.72(7), “If a federal reporting GIS owner wishes to exempt a particular release of SF₆ emissions from its annual calculation of the emissions limit (rate or mass), the federal reporting GIS owner must meet its burden of proof to demonstrate, and the Department must determine, that such release of SF₆ was: 1. Caused by a sudden, unforeseeable emergency event, including, but not limited to: fire, flood, earthquake, or act of vandalism; and could not have been prevented by the exercise of prudence, diligence, and care; and was beyond the control of the federal reporting GIS owner; or 2. Necessary to avoid an immediate electrical system outage.”

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the equipment repaired including but not limited to the estimated time of leakage and volume of gas leaked during that time. If a leak cannot be repaired or contained within five (5) days of discovery due to unforeseeable emergency events, the permittee must submit the specific information outlined below to the EPA within 30 days of the event:

I. A detailed, chronological, narrative description of the sudden, unforeseeable, emergency event or the specific circumstances necessitating a longer response time for repair and/or containment of SF₆ to avoid an electrical system outage. Such description shall include, but is not limited to, the following:

- a. The nature of the event (e.g., fire, flood, earthquake, storms)
- b. The date and time of the event
- c. The location of the event
- d. The equipment that was affected by the event
- e. The function of the affected equipment within the facility's system
- f. Repairs made to affected equipment
- g. The amount of SF₆ released (in pounds)
- h. The specific event which resulted in the release of SF₆
- i. The timeline that was needed for repair
- j. The precautions taken to prevent future releases of SF₆

II. Information and documentation (including, but not limited to, witness statements, photographs, analysis of damaged equipment, accident reconstruction, or other evidence) that indicates which repairs cannot be made within 5-days.

SRW Comment 8:

Referenced Text: Permittee must maintain emissions of sulfur hexafluoride (SF₆) emissions from GIS below 1.0% maximum annual leak rate. Permittee may demonstrate compliance with this requirement by complying with Section IV(D)(4) (the more stringent requirement).

Comment: SRW believes the reference to Section IV(D)(4) here is intended to refer to Section IV(D)(3), the 0.5% maximum leak rate. SRW proposes the following correction.

Suggested Text: Permittee must maintain emissions of sulfur hexafluoride (SF₆) emissions from GIS below 1.0% maximum annual leak rate. Permittee may demonstrate compliance with this requirement by complying with ~~Section IV(D)(4)~~ Section IV(D)(3) (the more stringent requirement).

EPA Response to SRW Comment 8: EPA agrees with the comment and has made the suggested correction to Section IV(D)(4) of the permit.

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Revised Text: Permittee must maintain emissions of sulfur hexafluoride (SF₆) emissions from GIS below 1.0% maximum annual leak rate. Permittee may demonstrate compliance with this requirement by complying with ~~Section IV(D)(4)~~ Section IV(D)(3) (the more stringent requirement).

Permit Section V

SRW Comment 9:

Referenced Text: (2) An agreement(s) between the Permittee and a third-party(ies) that requires the third-party(ies) to create CERCs. In such case, the Permittee shall obtain a minimum of 339.6 tpy of NO_x CERCs and 6.0 tpy of VOC CERCs. Such an agreement(s) must be federally enforceable prior to the Permittee using said CERCs [...]

Comment: These numbers are not consistent with those provided by SRW in the memo to EPA on August 4, 2023, and the calculations outlined by EPA in the Fact Sheet.

Per 310 CMR 7.00 Appendix A(6)(e), “[...] the ratio of total actual emission reductions to the increase in actual emissions shall be as follows: 1. 1.2:1 of VOC or NO_x; [...].” Additionally, for rate-based emission reduction credits certified under the Massachusetts trading bank, 310 CMR 7.00 Appendix B(3)(e)(2) states, “Persons seeking to use ERCs must obtain an amount of credit equal to five percent more than the amount needed for the offset or compliance calculation.” Section IV(A)(6) of the Draft OCS Air Permit provides the Facility-Wide Emission Limit for NO_x to be 109 tons, and for VOC to be 10.5 tons, which is based on SRW’s total estimated Operations Phase emissions provided via memo to the EPA on August 4, 2023, of 108.4 tons per year (tpy) of NO_x and 10.5 tpy of VOC. Based on these numbers and the above requirements in 310 CMR 7.00, the required offsets are 130.08 tpy for NO_x and 12.6 tpy for VOC, unless using ERCs from the Massachusetts trading bank, in which case the required offsets would be 136.58 tpy for NO_x and 13.2 tpy for VOC. These calculations are also outlined in Table 22 and Table 23 of the Fact Sheet (Section V(C), page 93-94). The offsets required in Section V(A)(1) and Section V(A)(3) match these calculations; however, the offsets required in Section V(A)(2) do not. As such, SRW proposes revising the referenced text to include the below offsets.

Suggested Text: An agreement(s) between the Permittee and a third-party(ies) that requires the third-party(ies) to create CERCs. In such case, the Permittee shall obtain a minimum of ~~339.6~~ 130.08 tpy of NO_x CERCs and ~~6.0~~ 12.6 tpy of VOC CERCs. Such an agreement(s) must be federally enforceable prior to the Permittee using said CERCs.

EPA Response to SRW Comment 9: EPA agrees with the comment as the number of CERCs specified in Section V(A)(2) was in error for this Project. EPA has revised Section V(A)(2) of the permit accordingly and as described below, consistent with amounts listed in Section V(A)(1) and Section V(A)(3).

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Revised Text: An agreement(s) between the Permittee and a third-party(ies) that requires the third-party(ies) to create CERCs. In such case, the Permittee shall obtain a minimum of 130.08 tpy of NO_x CERCs and 12.6 tpy of VOC CERCs. Such an agreement(s) must be federally enforceable prior to the Permittee using said CERCs.

Permit Section VI

SRW Comment 10:

Referenced Text: The permittee shall comply with all applicable requirements of 40 C.F.R. part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (CI ICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

Comment: Subpart ZZZZ applies to the broad category of Stationary Reciprocating Internal Combustion Engines, which includes both Compression Ignition and Spark Ignition Internal Combustion Engines (CI ICE and SI ICE). Based on 60 CFR § 63.6580, the acronym for Stationary Reciprocating Internal Combustion Engines is RICE. While the OCS Air Permit only includes CI ICE, this should be updated in the permit to avoid ambiguity over whether Subpart ZZZZ is meant to apply to all RICE, or just CI ICE.

Suggested Text: The permittee shall comply with all applicable requirements of 40 C.F.R. part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (~~CHCE~~) (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

EPA Response to SRW Comment 10: EPA agrees that the acronym used in this paragraph is incorrect and has revised the text below. EPA has also added the term “RICE” to the acronym list on page 2 of the permit.

Revised Text: The permittee shall comply with all applicable requirements of 40 C.F.R. part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

Permit Section VII

SRW Comment 11:

Referenced Text: For each engine operating on the Main WTG Installation Vessel, the Permittee shall conduct a visible emission test for 30 consecutive minutes using the EPA test method 22 when the vessel is operating as an OCS source, once per operating day. If during the method 22 test visible emissions are observed for more than 3 consecutive minutes, within 14 calendar days the Permittee shall conduct a visible emission test using the EPA method 9. An operating day is defined as any calendar day in which the vessel operated as an OCS source. All visible emission tests for this specific permit condition shall be conducted in accordance with the EPA test requirements specified in 40 C.F.R. part 60, appendix A, methods 9 and 22.

Comment: The term “Main WTG Installation Vessel” is not defined in the permit, and so the exact vessel(s) that this section applies to is vague. SRW suggests including a definition of this term in Section III. A suggested definition is included below.

Suggested Text: (added to Section III) Main WTG Installation Vessel means the primary vessel responsible for installation of the towers, nacelles, and blades of the WTGs on top of the pre-installed foundations. This corresponds to the “Jack-up Installation Vessel” in EUG 2.

EPA Response to SRW Comment 11: EPA agrees with the comment and has revised Section III. Definitions of the permit accordingly by adding the definition below to clarify the condition.

Revised Text: Main WTG Installation Vessel, as this term relates specifically to Section VII (B), means the primary vessel responsible for installation of the towers, nacelles, and blades of the WTGs on top of the pre-installed foundations. This corresponds to the “Jack-up Installation Vessel” in EUG 2.

SRW Comment 12:

Referenced Text: The permittee shall comply with all applicable requirements of 40 C.F.R. part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (CI ICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

Comment: As in Section VI(B), this text should be updated to include all RICE, not just CI ICE (see discussion in comment 2.4.1, above).

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Suggested Text: The permittee shall comply with all applicable requirements of 40 C.F.R. Part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (~~CHCE~~) (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

EPA Response to SRW Comment 12: EPA agrees that the acronym used in this paragraph is incorrect and has revised the text below. EPA has also added the term “RICE” to the acronym list on page 2 of the permit.

Revised Text: The permittee shall comply with all applicable requirements of 40 C.F.R. part 63 (NESHAP), subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

Permit Section VIII

SRW Comment 13:

Referenced Text: The records shall be maintained during pre-construction, construction, and operation activities.

Comment: The record-keeping requirements of the permit should not be applied to pre-construction activities. Pre-construction activities are not covered by the permit since no OCS Source exists prior to the Construction Phase Start Date.

Suggested Text: The records shall be maintained during ~~pre-construction~~, construction, and operation activities.

EPA Response to SRW Comment 13: EPA agrees that until the first OCS source is established, that is once any equipment or activity that meets the definition of an OCS source is located within the wind development area, it is not regulated under the permit. Therefore, EPA is removing the word pre-construction from Section VIII.B. as suggested by the commenter.

Revised Text: The records shall be maintained during construction and operation activities.

SRW Comment 14:

Referenced Text: Records documenting the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date of engine(s) located on the ESP and WTG(s), all engines on vessels that meet the definition of an OCS Source, and all

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engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility's centroid. This includes domestic and/or foreign-flagged vessels. The records must be maintained during pre-construction, construction, and operation activities.

Comment: This text refers to the "ESP," which is not a defined acronym. Based on the context, SRW believes this should be OCS-DC. Additionally, see SRW's comment 2.6.1 regarding pre-construction.

Suggested Text: Records documenting the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date of engine(s) located on the ~~ESP~~ OCS-DC and WTG(s), all engines on vessels that meet the definition of an OCS Source, and all engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility's centroid. This includes domestic and/or foreign-flagged vessels. The records must be maintained during ~~pre-construction~~, construction, and operation activities.

EPA Response to SRW Comment 14: EPA agrees that ESP is the incorrect term for this Project and has replaced with the correct term, OCS-DC. Furthermore, consistent with EPA's response to Comment 13, Section VIII (B)(6) has been revised to remove pre-construction from the text.

Revised Text: Records documenting the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date of engine(s) located on the OCS-DC and WTG(s), all engines on vessels that meet the definition of an OCS Source, and all engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility's centroid. This includes domestic and/or foreign-flagged vessels. The records must be maintained during construction and operation activities.

SRW Comment 15:

Referenced Text: Per Section IV(B)(1), records of the EPA-issued COCs or manufacturers' certifications which demonstrate which tier standard each applicable OCS Generator Engine(s) in EUG 1 has been certified to meet.

Comment: The language in this Section is unclear as to which engines it applies. Section IV(B)(1) only applies to SRW-1 and SRW-2, which are the two larger auxiliary generator engines installed on the OCS-DC, used during construction and commissioning of the wind farm, as well as during operations. However, "OCS Generator Engine(s) in EUG 1" would seem to include additional generators. SRW proposes to clarify this section.

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Suggested Text: Per Section IV(B)(1), records of the EPA-issued COCs or manufacturers' certifications which demonstrate which tier standard ~~each applicable OCS Generator Engine(s) in EUG 1 has~~ SRW-1 and SRW-2 have been certified to meet.

EPA Response to SRW Comment 15: EPA agrees and has revised the recordkeeping condition¹⁷ to directly reference SRW-1 and SRW-2. As a result of this edit, EPA has recognized it had inadvertently left out the associated recordkeeping condition for SRW-3 through SRW-13. To be consistent with the structure and ensure the same records are maintained for those units, EPA has added the recordkeeping requirement associated with Section IV (B)(2).

Revised Text: Per Section IV(B)(1), for SRW-1 and SRW-2, permittee shall maintain records of the EPA-issued COCs or manufacturers' certifications which demonstrate the tier standard each engine has been certified to meet.

Per Section IV(B)(2), for SRW-3 through SRW-13, permittee shall maintain record of the EPA-issued COCs or manufacturers' certifications which demonstrate the-tier standard each engine has been certified to meet.

SRW Comment 16:

Referenced Text: Per Section IV(B)(2) and Section IV(C)(1), a copy of the GCOP for the facility.

Comment: The Good Combustion and Operating Practices (GCOP) Plan is not discussed in the referenced sections in this permit. SRW believes that this text should be updated to refer to the following sections.

Suggested Text: Per ~~Section IV(B)(2)~~ Section VI(C) and ~~Section IV(C)(1)~~ Section VI(D), a copy of the GCOP for the facility.

EPA Response to SRW Comment 16: EPA agrees with this edit and has revised the references accordingly.

Revised Text: Per ~~Section IV(B)(2)~~ Section VI(C) and ~~Section IV(C)(1)~~ Section VI(D), a copy of the GCOP for the facility.

SRW Comment 17:

Referenced Text: Per Section IV(C)(2) through (9), records of the engines on vessels while operating as OCS Sources. The Permittee shall include verification that Section IV(C)(2) through (9) requirements for LAER and BACT were implemented in the final

¹⁷ See Section VIII. (B)(7) of Permit No. OCS-R1-06.

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construction and operation of the Project, including any supplemental documentation for a lower tier vessel.

Comment: SRW believes that this text erroneously omits the requirements included in Section IV(C)(1) which apply to Category 3 engines on OCS source vessels subject to NSPS IIII that satisfy the definition of *tugboat, towboat, push boat, crew and supply vessel, dredge, or barge*. As such, we propose revising this text to include it (*please note:* if the section numbering in Section IV(C) is updated, the 9 in the below clause should become 8 – see comment 2.2.2).

Suggested Text: Per ~~Section IV(C)(2)~~ Section IV(C)(1) through (9), records of the engines on vessels while operating as OCS Sources. The Permittee shall include verification that ~~Section IV(C)(2)~~ Section IV(C)(1) through (9) requirements for LAER and BACT were implemented in the final construction and operation of the Project, including any supplemental documentation for a lower tier vessel.

EPA Response to SRW Comment 17: EPA agrees with this edit and has revised the references accordingly.

Revised Text: Per ~~Section IV(C)(2)~~ Section IV(C)(1) through (8), records of the engines on vessels while operating as OCS Sources. The Permittee shall include verification that ~~Section IV(C)(2)~~ Section IV(C)(1) through (8) requirements for LAER and BACT were implemented in the final construction and operation of the Project, including any supplemental documentation for a lower tier vessel.

SRW Comment 18:

Referenced Text: Per Section IV(D), verification that the BACT requirements for equipment on SWGs were implemented in the final construction and operation of the Project.

Comment: The acronym “SWG” is not defined in this permit. Based on the context and section reference, this is regarding the switchgear. SRW proposes the following update.

Suggested Text: Per Section IV(D), verification that the BACT requirements for equipment on ~~SWGs~~ MV-GIS and HV-GIS were implemented in the final construction and operation of the Project.

EPA Response to SRW Comment 18: EPA agrees and has revised the terminology for this Project accordingly.

Revised Text: Per Section IV(D), verification that the BACT requirements for equipment on ~~SWGs~~ MV-GIS and HV-GIS were implemented in the final construction and operation of the Project.

Permit Section IX

SRW Comment 19:

Referenced Text: The Permittee shall notify the EPA, in writing, at least 30 days prior to installing and/or operating an engine on each WTG and OCS-DC. The notification shall include, for each engine, the make, model, maximum rated power output, engine displacement, and manufacturing date.

Comment: The installation/operation of SRW-6 through SRW-13 engines on WTGs would only occur in an emergency situation, i.e., after multiple system failures (such as loss of local generation by the WTGs, loss of WTG battery backup power and loss of availability of emergency power from the OCS-DC emergency generators). SRW anticipates this need to occur rarely if ever over the lifetime of the facility as it requires multiple simultaneous failures. It is impossible to know in advance when such an emergency will occur. SRW requests modification of this condition as follows:

Suggested Text: For SRW-1–SRW-5, the Permittee shall notify the EPA, in writing, at least 30 days prior to installing and/or operating an engine on each WTG and OCS-DC; for SRW-6–SRW-13, the Permittee shall notify the EPA, in writing, as soon as is practical, but in no case more than 30 days following the installation of emergency generators on any WTGs. The notification shall include, for each engine, the make, model, maximum rated power output, engine displacement, and manufacturing date.

EPA Response to SRW Comment 19: EPA acknowledges the application of this provision as it relates to the emergency generators mentioned (i.e., SRW-6 through SRW-13), which will only be installed in the event of a failure necessitating their use¹⁸. Therefore, for these specific units, where it would be impossible for the facility to know 30-days in advance of when that worst-case emergency scenario would occur, EPA agrees that it is necessary and appropriate to require notification within a certain time frame after the installation occurs. The timeframe proposed by Sunrise is consistent with the initial notification procedures required by NSPS IIII¹⁹. Although the condition in Permit Section IX is a separate requirement from the NSPS IIII requirement, it would be at least as stringent as the NSPS IIII requirement. In addition, the notification requirement is separate from the requirement to perform the daily emissions calculation occurring during any given “worst-case emergency scenario” which is still a requirement of the permit. Therefore, EPA has agreed to revise the condition for providing notification of those units as soon as is practical, but no more than 30 days post-installation.

¹⁸ Per page 44 of the fact sheet for SRW, SRW-6–SRW-13 will also only remain installed and operating for the duration of the necessary repairs.

¹⁹ Per 40 CFR 60.4214(a)(1), the permittee is required to submit an initial notification as required under § 60.7(a)(1). § 60.7(a)(1)), “A notification of the date of construction of an affected facility is commenced (in this case, an engine applicable under NSPS IIII) postmarked no later than 30 days after such date”.

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Revised Text: For SRW-1–SRW-5, The Permittee shall notify the EPA, in writing, at least 30 days prior to installing and/or operating an engine on each WTG and OCS-DC. For SRW-6–SRW-13, the Permittee shall notify the EPA, in writing, as soon as is practical, but in no case more than 30 days following the installation of emergency generators on any WTGs. The notification shall include, for each engine, the make, model, maximum rated power output, engine displacement, and manufacturing date.

Permit Section X

SRW Comment 20:

Referenced Text: The authorization to construct an OCS Source under this Permit shall become invalid if construction is not commenced within 18 months after the effective date of this Permit (OCS-R1-05).

Comment: SRW believes this text is intended to refer to the SRW Permit itself, which is Permit number OCS-R1-06. As such, SRW proposes the following revision.

Suggested Text: The authorization to construct an OCS Source under this Permit shall become invalid if construction is not commenced within 18 months after the effective date of this Permit ~~(OCS-R1-05)~~(OCS-R1-06).

EPA Response to SRW Comment 20: EPA agrees with this edit and the revised Section X (B) with the correct permit number associated with this Project.

Revised Text: The authorization to construct an OCS Source under this Permit shall become invalid if construction is not commenced within 18 months after the effective date of this Permit ~~(OCS-R1-05)~~(OCS-R1-06).

Additional Revisions and/or Analysis of Permit No. OCS-R1-06

On February 7, 2024, EPA announced that it is revising the national ambient air quality standards (NAAQS) for particulate matter. The EPA is strengthening the primary annual PM_{2.5} standard by lowering the level from 12.0 µg/m³ to 9.0 µg/m³. The final action for this proposed change will take effect 60 days after the date of publication in the Federal Register.

As a result, any permit issued after the final action date of the NAAQS revision needs to demonstrate that it will not cause or contribute to an exceedance of the new primary annual PM_{2.5} NAAQS of 9.0 µg/m³. The air dispersion modeling report titled: “Sunrise Wind Offshore Coastal Dispersion Air Quality Impact Analysis Report” dated June 2022 predicts annual PM_{2.5} impacts from the Project to be 0.01 µg/m³ as the highest average of annual impacts for the 3-year period. These impacts are less than the annual PM_{2.5} Significant Impact Level of 0.2 µg/m³, if combined with the background concentration of 4.8 µg/m³, total annual PM_{2.5} impacts are predicted to be 4.8 µg/m³. Therefore, the air quality impact analysis demonstrates that the Project will not cause or contribute to an exceedance of the new primary annual PM_{2.5} standard.