U.S. Environmental Protection Agency
Region 1

Outer Continental Shelf Air Permit:
Vineyard Wind 1, LLC

800 MW Windfarm

Offshore Renewable Wind Energy Project
Massachusetts Wind Energy Area

Response to Comments on
EPA Draft Permit Number
OCS-R1-03

Introduction

On June 28, 2019, EPA Region 1 published notices in the Standard-Times (New Bedford) and Cape Cod Times, and in the Providence Journal on July 1, 2019 for public review and comment of a proposed Outer Continental Shelf Air Permit for the Vineyard Wind LLC (VW) 800 MW windfarm located in Federal waters off the coast of Massachusetts. The comment period ran through August 1, 2019. EPA also held a public hearing at the New Bedford Free Public Library in New Bedford, Massachusetts on Thursday, August 1, 2019. The EPA received comments from several people and organizations.

After a review of the comments received, the EPA has made a final decision to issue this OCS permit. As required by 40 CFR part 124 (Procedures for Decisionmaking), EPA has prepared this document known as the "response to comments" (RTC) that describes and addresses the significant issues raised during the comment period and describes the provisions of the draft permit that have been changed and the reasons for the changes. Since the Fact Sheet is a final document, no changes were made to it. Instead, comments on the Fact Sheet were noted, and responses to them are included in this document.

The Final Permit is substantially the same as the Draft Permit that was available for public comment. Although the EPA's decision-making process has benefitted from the comments and additional information submitted, the information and arguments presented did not raise any substantial new questions concerning the permit. The EPA did, however, make certain clarifications, and revised some permit conditions in response to comments. In addition to the changes made as a result of comments, EPA made a couple of minor revisions to correct technical errors in the permit. EPA believes these changes are administrative in nature, or are

required by the plain language of the Clean Air Act, and do not significantly alter the terms and conditions of the draft permit. These improvements and changes are detailed in this document and reflected in the Final Permit. A summary of the changes made in the Final Permit is listed below. The analyses underlying these changes are explained in the responses to individual comments that follow. The Final Permit and RTC are available on the EPA‟s web site at https://www.epa.gov/caa-permitting/epa-issued-caa-permits-region-1. The EPA is sending the RTC and the Final Permit to the commenters and individuals who requested a copy. Copies of the Final Permit may be obtained by writing (email preferred) or calling EPA between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays:

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The complete text of each comment as submitted, and a complete copy of the transcript from the public hearing, are in the administrative record and available by request. The administrative record can be accessed online at https://www.regulations.gov (Docket # EPA-R01-OAR-2019-0355).

The following is the list of comments the EPA received, our response to those comments, and, if applicable, revisions to the Draft Permit that EPA made in issuing the Final Permit. Revisions to the Draft Permit are indicated in this RTC document by underlining new language being added to the Final Permit. Language that is in the Draft Permit but not in the Final Permit is in strikeout format in this RTC document.

The following is a list of the persons and organizations that submitted comments on the Draft permit:

1. Vineyard Wind, LLC;
2. Ms. Mary Crowell;
3. Mr. Brian C. Austin, Acting Forest Supervisor, United States Department of Agriculture, Forest Service, Green Mountain and Finger Lakes National Forests;
4. Colonel Stephen G. Waller, USAF, retired;
5. Mr. Paul Vigeant.

Response to Comments and Revisions to the Draft Permit

Comments from Vineyard Wind, LLC (VW)

Comment 1: VW commented that the Project is located in the Massachusetts Wind Energy Area, not the Rhode Island-Massachusetts Wind Energy Area as stated on page 1 of the Draft Permit.

EPA's Response to Comment 1: The EPA agrees with the commenter and has revised the Draft Permit to state that the project is occurring in the Massachusetts Wind Energy Area.

Revision to the Draft Permit based on Comment 1: On page 1 of the Draft permit, the EPA made the following revision:

> "VW proposes to install and operate an 800 MW windfarm in the ~~Rhode Island-~~ Massachusetts Wind Energy Area."

Comment 2: VW commented that it intends to install two main offshore export cables, not "one or two" as stated on page 4 of the Draft Permit. VW also commented that the Project's offshore export cable will connect to a substation in Barnstable, not "Barnstable or Yarmouth" as stated on page 4 of the Draft Permit.

EPA's Response to Comment 2: The EPA agrees with the commenter and has revised the Draft Permit to state that VW intends to install two main offshore export cables and connect them to a substation in Barnstable.

Revision to the Draft Permit based on Comment 2: On page 4 of the Draft permit, the EPA made the following revision:

> "VW ~~will also~~ intends to install ~~one or~~ two main offshore electrical cables that will connect the ESP to an onshore substation in ~~either~~ Barnstable~~ or Yarmouth,~~ Massachusetts."

Comment 3: VW commented that while the Project envelope allows for 106 wind turbine generator (WTG) locations, the Project design will only install up to 100 WTGs. The Fact Sheet on page 12 suggests that EPA has aggregated 106 WTGs for purposes of defining the Wind Development Area (WDA) facility.

EPA's Response to Comment 3: The EPA's intent was to provide its rationale for treating the WDA as one facility. The EPA understood that VW would not install more than 106 WTG, as stated on page 25 of the August 17, 2018 application from VW. Whether 100 or 106 WTGs are aggregated when defining the WDA facility has no impact on determining the WDA facility's applicable Clean Air Act requirements. The potential emissions from WDA facility are major whether VW builds 100 or 106 WTGs.

The Fact Sheet is a final document and cannot be revised. However, the EPA will rely on this RTC document to clarify that the WDA facility will consist of up to 100 WTGs instead of 106 WTGs. Furthermore, EPA received notification on January 25, 2021 from VW indicating the selection of the GE Haliade-X 13 MW WTG into the final project design and requested that EPA continue processing the OCS permit application. As a result, the EPA notes that VW may actually install only 62 WTGs. However, EPA has not made any changes to the final permit based on this change to the project and is issuing the final permit based on the August 2018 permit application and subsequent application updates.

Comment 4: VW commented that Tables 1 and 2 of the Fact Sheet are titled construction emissions attributable to only the WDA Facility. VW stated that the estimates set forth in the tables are for the entire Project, including emissions associated with construction of the offshore export cable laying activities (the "OECLA"). VW also stated that Table 5, which provides emission estimates for construction of the OECLA, is a subset of the estimates provided in Tables 1 and 2.

EPA's Response to Comment 4: The EPA concurs with VW's clarification. Because the Fact Sheet is a final document and cannot be revised, this RTC document will serve as the basis for clarifying that the estimated construction emissions from the WDA facility in Tables 1 and 2 are as follows:

Table 1. Emissions During the Construction Phase of the WDA Facility

	Total Fuel Use (gal)	WDA Facility Air Emissions (tons) – Construction Phase							
		NO_x	VOC	CO	PM_{10}[a]	$PM_{2.5}$[a]	SO_2	CO_2	CH_4
Year 1	17,103,732	~~3,168~~ 3,072	~~77~~ 75	~~686~~ 663	~~104~~ 101	~~100~~ 97	~~27.3~~ 26.8	~~198,705~~ 192,288	1.75
Year 2	3,271,957	546	11	136	18	18	2.1	37,154	0.32
Total	20,375,689	~~3,713~~ 3,617	~~88~~ 86	~~822~~ 799	~~123~~ 120	~~118~~ 115	~~29.5~~ 29	~~235,859~~ 229,442	2.07

a. On April 22, 2019, VW submitted a supplemental modeling analysis that showed PM_{10} emissions of 102.3 tons per year (tpy) and $PM_{2.5}$ emissions of 98 tpy.

Table 2. Emissions During the Construction Phase of the WDA Facility (cont.)

	Total Fuel Use (gal)	WDA Facility Air Emissions (tons) - Construction Phase (cont.)				
		N_2O	Pb	HAPs	CO_2e	H_2SO_4
Year 1	17,103,732	~~9.13~~ 8.83	0.01	~~6.7~~ 6.4	~~202,579~~ 196,078	1.26
Year 2	3,271,957	1.69	0.00	1.5	39,015	0.10
Total	20,375,689	~~10.82~~ 10.52	0.02	~~8.2~~ 7.9	~~241,594~~ 235,093	1.35

CH_4, Pb. and H_2SO_4 emissions from the OECLA were estimated to be zero; therefore, there is no change in the estimated emissions from the WDA facility itself of these pollutants

Comment 5: VW commented that on page 38 of the Fact Sheet describing ambient air impact modeling, it notes that modeling for the operational phase of the OECLA was not conducted because it was assumed that there would be no emissions associated with the OECLA during this phase. VW commented that, for accuracy, the sentence should be clarified to reflect that there would be no "OCS Source" emissions associated with the OECLA during operations.

EPA's Response to Comment 5: The EPA interprets this comment to suggest that during the operational phase, air emissions may occur from vessels operating in the OECLA area, but that the vessels themselves will not meet the definition of an OCS source. The EPA concurs with the Commenter's clarification. Since the Fact Sheet is a final document and cannot be revised, this RTC document will serve as the basis for clarifying the following statement on page 38 of the Fact Sheet to mean there will be no emissions associated with the OECLA during the operational phase that are subject to the part 55 air permit:

> "Modeling for the operational phase for the OECLA was not conducted since it is assumed there will be no emissions associated with OECLA during this phase that are subject to the part 55 air permit."

Comment 6: ***Anchored Cable Laying Vessel****:* Vineyard Wind recommends that this definition be clarified to reflect that the vessel described is intended to be used for the segment of the OECLA that will cross federal waters in Nantucket Sound (the "Nantucket Sound Area"), not the WDA. But Vineyard Wind also acknowledges that it is possible that vessels installing the cable outside of the Nantucket Sound Area may need to anchor to maneuver the cable installation tool.

EPA's Response to Comment 6: The EPA understands that the Anchored Cable Laying Vessel will primarily operate in Nantucket Sound Area as part of the OECLA facility, but that it may also operate within the WDA facility. Thus, it is not appropriate or necessary for the definition of an Anchored Cable Laying Vessel to limit this vessel's operation to a specific location within the OECLA facility.

Comment 7: ***Feeder Jack-up Vessel***: VW commented that the definition of the term "feeder Jack-up Vessel" provides two criteria that must be met for a vessel to be considered a Feeder Jack-up Vessel, the second of which is that it must meet the definition of a "Crew or Supply Vessel." VW commented that this criterion is apparently referencing California's Airborne Toxic Control Measure for Commercial Harbor Craft regulation, 17 C.C.R. §93118 ("Commercial Harbor Craft Regulation"), which VW identified as the most stringent State Implementation Plan (SIP) limit for vessels, for purposes of determining the Lowest Achievable Emission Rate (LAER). VW stated that while the permit defines Supply Vessel, it does not fully define a crew vessel. Instead, it defines a Primary Crew Transfer Vessel and Secondary Crew Transfer Vessel. VW commented that for consistency and clarity throughout the permit, VW recommends:

1. In the definition of Feeder Jack-up Vessel rather than "Crew or Supply Vessel" refer to "Crew *Transfer Vessel* or Supply Vessel" to be consistent with the definitions of primary and secondary crew transfer vessels.

2. Because the definitions of primary and secondary crew transfer vessels do not fully describe how the vessels are used, add a definition of *Crew Transfer Vessel.* We recommend that a Crew

Transfer Vessel be defined as "a self-propelled vessel primarily used for carrying personnel to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels) from the staging area to the WDA facility or OECLA."

3. Because the Commercial Harbor Craft Regulation does not apply to ocean going crew or supply vessels (17 C.C.R. Part 93118.5(c)(6)), add to the definitions of Supply Vessel and Crew Transfer Vessel that the definition does not include "Ocean Going Vessels." Consistent with the Commercial Harbor Craft Regulation, we recommend that EPA add the following definition of "Ocean Going Vessel:"

> *Ocean-Going Vessel* means a commercial, government, or military vessel meeting any one of the following criteria:
>
> (A) a vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
>
> (B) a vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined in 46 CFR 69.51-.61, as adopted September 12, 1989; or
>
> (C) a vessel propelled by a marine compression-ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.

EPA's Response to Comment 7: Comment 7 suggests several clarifications to Section III of the permit, which contains definitions. The EPA agrees with VW that the purpose for defining *Feeder Jack-up Vessel, Supply Vessel, and Secondary Crew Transfer Vessel* was to ensure the emission limits in Section IV.D.3. of the permit were at least as stringent as the California SIP. See Section VI.B.1 of the Fact Sheet for further information. The purpose of defining *Primary Crew Transfer Vessel* was different, in that a *Primary Crew Transfer Vessel's* engines must be certified, depending on size, as meeting either the Tier 3 or Tier 4 standards in 40 C.F.R. § 1042. See permit condition IV.D.8. To clarify the EPA's intent, the Agency has revised the definitions of *Feeder Jack-up Vessel* and *Secondary Crew Transfer Vessel*. EPA did not include the word "primarily" in the revised definition of *Secondary Crew Transfer Vessel* because the California SIP does not use that term.

The EPA also agrees with VW that the addition of a definition for *Ocean-going Vessel* and the use of that term within the definitions of *Supply Vessel* and *Secondary Crew Transfer Vessel* clarifies when vessels are subject to the emission limits in Section IV.D.3 instead of either Section IV.D.4 or IV.D.5 of the permit. The permit's new definition of *Ocean-going Vessel* is the same as that term is defined in the California SIP (See Title 17 of the California Code of Regulations, Section 93.1185(d)(50)).

Revisions to the Draft Permit based on Comment 7: In Section III.15., the definition of *Feeder Jack-up Vessel* has been revised as follows:

> *Feeder Jack-up Vessel* means a vessel that includes legs and a lifting system that enables the vessel to lower its legs into the seabed and elevate its hull to provide a stable work deck and meets the definition of a "*Secondary Crew Transfer Vessel"* or "*Supply Vessel*."

In Section III.31., the definition of *Secondary Crew Transfer Vessel* has been revised as follows:

> *Secondary Crew Transfer Vessels* are all self-propelled vessels that are not *Ocean-going Vessels* and are used for carrying personnel to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels) from the staging area to the WDA facility or OECLA~~crew transfer vessels~~ that are not the primary crew transfer vessel.

In Section III.33., the definition of *Supply Vessel* has been revised as follows:

> *Supply Vessel* means a self-propelled vessel used for carrying supplies to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels) from the staging area to the WDA facility or OECLA and is included in the definition of an OCS source *and is not an Ocean-going Vessel*.

In Section III.25 a definition of an *Ocean-Going Vessel* is added as follows:

> *Ocean-going Vessel* means a commercial, government, or military vessel meeting any one of the following criteria:
>
> (A) a vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
>
> (B) a vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined in 46 CFR 69.51-.61, as adopted September 12, 1989; or
>
> (C) a vessel propelled by a marine compression-ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.

Comment 8: *Category 1 Engine*: VW commented that the permit defines a Category 1 Engine in accordance with the criteria set forth in 40 C.F.R. Part 1042 (a marine engine with a specific engine displacement below 7.0 liters per cylinder). VW commented that as set forth in VW's permit application, some Project vessels, including those that are not OCS sources, may have marine engines certified under 40 C.F.R. Part 94, which defines a Category 1 engine as a marine engine with a rated power greater than or equal to 37 kilowatts and a specific engine displacement less than 5.0 liters per cylinder. We therefore request that EPA broaden its definition of Category 1 Engine as follows:

Category 1 Engine means:

a. For engines regulated under 40 CFR Part 1042, a marine engine with specific engine displacement below 7.0 liters per cylinder; or

b. For engines regulated under 40 CFR Part 94, a marine engine with a rated power greater than or equal to 37 kilowatts and a specific engine displacement less than 5.0 liters per cylinder.

Comment 9: *Category 2 Engine*: VW commented that for the same reasons discussed regarding Category 1 Engines, we request that EPA broaden the definition of Category 2 Engine as follows:

Category 2 Engine means:

a. For engines regulated under 40 CFR Part 1042, a marine engine with a specific engine displacement at or above 7.0 liters per cylinder but less than 30.0 liters per cylinder; or

b. For engines regulated under 40 CFR Part 94, a marine engine with a specific engine displacement greater than or equal to 5.0 liters per cylinder but less than 30 liters per cylinder.

EPA's Response to Comments 8 and 9: The EPA recognizes that Category 1 and 2 Engines are defined slightly differently in 40 C.F.R. parts 94 and 1042. Because the draft permit allows VW to operate engines under 40 C.F.R. part 94, the EPA agrees with the commenter and has revised the definitions of *Category 1 Engine* and *Category 2 Engine* in the final permit.

Revisions to the Draft Permit based on Comments 8 and 9: In Section III.4., the definition of *Category 1 Engine* has been revised as follows:

Category 1 Engine means ~~a marine engine with specific engine displacement below 7.0 liters per cylinder.~~:

a. For engines regulated under 40 CFR Part 1042, a marine engine with specific engine displacement below 7.0 liters per cylinder; or

b. For engines regulated under 40 CFR Part 94, a marine engine with a rated power greater than or equal to 37 kilowatts and a specific engine displacement less than 5.0 liters per cylinder.

In Section III.5., the definition of *Category 2 Engine* has been revised as follows:

Category 2 Engine means ~~a marine engine with a specific engine displacement at or above 7.0 liters per cylinder but less than 30.0 liters per cylinder.~~:

a. For engines regulated under 40 CFR Part 1042, a marine engine with a specific engine displacement at or above 7.0 liters per cylinder but less than 30.0 liters per cylinder; or

b. For engines regulated under 40 CFR Part 94, a marine engine with a specific engine displacement greater than or equal to 5.0 liters per cylinder but less than 30 liters per cylinder.

Comment 10: Sections IV.D.3: VW commented that for diesel-fired generating sets on the WTGs (§IV.B) and diesel-fired generating sets on the ESP (§IV.C), EPA requires that VW operate and install engines that "are certified by the manufacturer to meet or emit less than the emission standard set forth at 40 C.F.R. §1042.101(a)." VW stated that these provisions are important to allow the flexibility needed for foreign vessels that do not certify to EPA standards. VW also commented that it is equally important to provide this flexibility in §IV.D(3) that addresses both domestic and foreign-flagged vessel engines while operating as OCS sources. We therefore request that EPA clarify that as used in §IV.D.3, the terms "meet" or "meeting" emission limits means that an engine is certified by the manufacturer to meet or emits less than the applicable emission standard.

EPA's Response to Comment 10: The EPA agrees with the commenter that by using the terms "meet" or "meeting" a certain engine Tier level, the Agency means that the engine's emissions would be certified by the manufacturer to be at or below the emission limits for that Tier engine. For example, the NO_x emissions from a 700 kW engine certified as meeting the Tier 4 standards would need to be 1.8 g/kW-hr or less.

Comment 11: Section IV.D.5: VW commented that, as written, §IV.D.5 can be read to require that VW certify Category 3 engines on domestic-flagged vessels to International Maritime Organization (IMO) Tier marine engine standards. However, U.S. vessels that do not travel internationally are not always required to obtain Engine International Air Pollution Prevention (EIAPP) certificates from the EPA. Although the MARPOL Annex VI NOx standards are equivalent to the EPA emission limits for Category 3 marine engines, the IMO emission standards are based on ship construction dates that differ from the model years for which the EPA standards took effect. We therefore request that EPA modify §IV.D.5 to clarify that Category 3 engines on domestic flagged vessels be certified to IMO or EPA Tier standards. Wherever references to IMO tiers appear, they should be similarly followed by reference to EPA Tier standards. Finally, for absolute clarity Vineyard Wind requests that Table 2 include the model years for which EPA's Tier 1, 2, and 3 standards for Category 3 engines took effect." To assist EPA, the commenter proposed revisions to Table 2.

EPA's Response to Comment 11: The EPA agrees with the commenter and has clarified Section IV.D.5.

Revision to the Draft Permit based on Comment 11: Section IV.D.5 has been revised as follows:

The Permittee shall ensure that all engines on all foreign flagged vessels not regulated by permit condition IV.D.3, including a foreign flagged Anchored Cable Laying Vessel, and category 3 engines on domestic flagged vessels, while those vessels are operating as an OCS source, are certified to meet the IMO or EPA Tier 3 marine engine standards in Table 2 of

this permit, except if one of the conditions in subparagraph 5.a. or 5.b., below, is met, in which case the Permittee may use the next lower Tier marine engine (i.e., IMO or EPA Tier 2). Similarly, in the event that one of the conditions in subparagraph 5.a or 5.b., below, is met regarding the use of an IMO or EPA Tier 2 marine engine, the Permittee may use an IMO or EPA Tier 1 marine engine in lieu of an IMO or EPA Tier 2 marine engine. All marine engines operating on a foreign vessel while that vessel meets the definition of an OCS source, shall be certified as meeting the NOx emission limits for IMO or EPA Tier 1, 2, or 3 marine engines in Table 2, depending upon whichever IMO or EPA Tier the marine engine is certified to meet. In order to use a lesser IMO or EPA Tier marine engine, as described above, one of the following conditions must be met:

a. A vessel with a higher IMO or EPA Tier engine is not available within two hours of when the vessel must be deployed;

b. The total emissions associated with the use of a vessel with the higher IMO or EPA Tier engine(s) would be greater than the total emissions associated with the use of the vessel with the next lower IMO or EPA Tier engine(s). For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee may include the emissions of the vessel that would occur when the vessel would be going to the WDA from the vessel's starting location;

c. For category 3 engines on domestically flagged vessels, with a model year of 2011 or later, those engines must comply with an HC emission limit of 2 g/kW-hr and a CO emission limit of 5 g/kW-hr. [40 C.F.R. § 1042.104(a)]

Table 2

IMO/EPA Tier	Ship construction date on or after	Total weighted cycle NO_x emission limit (g/kWh) n = engine's rated speed (rpm)		
		n < 130	n = 130 - 1999	n ≥ 2000
I[a]	1 January 2000	17.0	$45 \cdot n^{(-0.2)}$ e.g., 720 rpm – 12.1	9.8
II	1 January 2011	14.4	$44 \cdot n^{(-0.23)}$ e.g., 720 rpm – 9.7	7.7
III	1 January 2016	3.4	$9 \cdot n^{(-0.2)}$ e.g., 720 rpm – 2.4	2.0[b]

a: The EPA Tier 1 NO_x emission limit for domestically flagged vessels with category 3 engines only apply to ships constructed on or after 1 January 2004.

b: The total weighted cycle NO_x emission limit for engines meeting the Tier III IMO standard is 1.96 when the engine speed equals or exceeds 2,000 rpm

[PSD BACT, NNSR LAER, 40 C.F.R. § 60.4201, 40 C.F.R. § 94.8, 40 C.F.R. § 1042.104, and 40 C.F.R. § 1043]

Comment 12: Section V.A.3.b: VW commented that this provision requires VW to record on a daily basis the total amount of NO_x emissions from all vessels en route to and from the Anchored Cable Laying Vessel operating as part of the OECLA and within 25 miles of the Anchored Cable Laying Vessel. Because the Anchored Cable Laying Vessel will continually move as it installs the offshore export cable in the Nantucket Sound Area as part of the OECLA, the 25-mile radius within which to measure emissions will also be moving. Given the number of vessels expected to be associated with the OECLA, it will be extremely difficult, if not impossible, for vessels to continuously and reliably update their navigational systems to account for the moving Anchored Cable Laying Vessel. To simplify emissions tracking, consistent with the approach used for the WDA facility, Vineyard Wind requests that the centroid of the Offshore Export Cable Laying Activities within the Nantucket Sound Area be the point from which emissions are calculated.

EPA's Response to Comment 12: The EPA understands that the Anchored Cable Laying Vessel will conduct cable laying activities throughout a linear route in the OECLA area. Therefore, the Agency agrees that using the centroid principal, at the center of the OECLA will result in calculating approximately the same amount of actual emissions as trying to continuously adjust during even one operating day the exact point where a vessel servicing the OECLA is within 25 miles of the OECLA. With a fixed point, VW will be actually calculating vessel emissions sometimes slightly more than 25 miles from the actual OECLA and sometimes less. The use of a centroid should result in a slight overestimate of emissions on some days canceling out the slight underestimate of emissions on other days. The EPA has revised the permit condition at Section V.A.3.b. to reflect the measurement from the centroid. In addition, EPA unintentionally omitted the words "at the Anchored Cable Laying Vessel, or." EPA is also replacing in one place the word "and" with the word "or." The addition of these words is needed to conform this condition with the third sentence in the definition of OCS source in section 328(a)(4)(C) of the Clean Air Act. Additional edits have been made to section V.A.3. to ensure consistent terminology is used in related sections of the final permit.

Revision to the Draft Permit based on Comment 12: Sections V.A.3. and V.A.3.b. have been revised as follows:

V.A.3.

"Beginning on the first day the Anchored Cable Laying Vessel ~~operates, occurs, or exists~~ anchors and begins laying cable in the OECLA area ~~and meets the definition of an OCS source~~, the Permittee shall start recording on a daily basis for each and every day, the total amount (in tons) of NO_x emissions from:"

V.A.3.b.

"all vessel engines servicing or associated with the Anchored Cable Laying Vessel when the Anchored Cable Laying Vessel is anchored and laying cable and those vessels are at the

Anchored Cable Laying Vessel, or en route to ~~and~~ or from the Anchored Cable Laying Vessel and are within 25 miles of the ~~Anchored Cable Laying Vessel~~ OECLA facility's centroid."

Comment 13: Section V.A.4: VW commented that Section V.A.4 sets forth a formula for the calculation of daily emissions, which is based on the hours of operation for each engine. VW stated that it understands EPA's methodology; however, EPA must understand that as a practical matter, there will likely be instances where direct daily recording of every engine's operating hours is infeasible. This is because contractors may not have the resources necessary to record the precise hours of operation for each individual engine, particularly for intermittently used construction equipment located on a vessel's deck (e.g. forklifts and small cranes). To comply with §V.A.4 and V.5 (which also includes hours of operation in calculating engine load factors), Vineyard Wind requests that EPA provide flexibility to report engine operating hours for certain engines (e.g. forklifts and small cranes) using the best available information. This could include shift logs or day tank refueling records, depending on the operation. Vineyard Wind would document the assumptions used and use conservative assumptions, as needed, to ensure that the Project meets the requirements for offsetting construction emissions for all engines subject to the Permit.

EPA's Response to Comment 13: Section VIII.5.a. of the permit requires the Permittee to record each day the total hours each engine operated. This information would then be used in the equations in Section V.A.4 to calculate NO_x and VOC emissions on a daily basis. The permit does not specify the methodology the Permittee would use in determining the daily operating hours of a specific engine. However, the EPA expects that for all engines having hourly metering devices installed, the Permittee will use such metering devices when calculating daily operating hours. For engines without such a device, Section VIII.5.a. provides the Permittee with the flexibility to use the best available information to conservatively calculate an engine's operating hours. Therefore, EPA has decided not to make a change to the permit based on this comment.

Comment 14: VW commented that Section V.A.4.a requires that Vineyard Wind use a default load factor of 0.69 to calculate daily emissions from vessels if fuel usage data and manufacturer's performance specification data are unavailable. The default value is based on the weighted average engine load associated with the general marine duty cycle (ISO 8178 type E3 test cycle) used by manufacturers to certify engines to EPA's Tier emission limits. However, marine engines can be certified using multiple other duty cycles (see 40 CFR Parts 94.105 and 1042.505), which can be used to derive default load factors that are more appropriate for a specific type of engine. Vineyard Wind requests that EPA provide Vineyard Wind the ability to use the load factors set forth in Attachment 1 that have been calculated from the regulatory requirements setting forth when each test cycle applies. This would allow Vineyard Wind to use a default factor of 0.69, 0.57, or 0.47 as applicable to the type of engines in use.

EPA's Response to Comment 14: The Commenter points out correctly that the certification requirements in 40 C.F.R. §§94.105 and 1042.505 differ, depending on the type of marine engine. When certifying that an engine meets the applicable emission limit, the EPA established a duty cycle which requires varying the engine load and sometimes engine speed during emission testing. The EPA has established different duty cycles for different types of marine engines.

For reasons specified in the Fact Sheet and Statement of Basis, the EPA does not have at the time of permit issuance information regarding any specific engine type that VW will use. In developing the default load factor that is used when certain information regarding the actual operations of the marine engine is unavailable, the EPA calculated the load factor based on the duty cycle for a "General Cycle" marine engine. The default factor of 0.69 also applies to duty cycles for constant speed propulsion engines and engines associated with controllable-pitch and electrically coupled propellers.

The EPA anticipates when calculating daily emissions from an engine, recording fuel usage will be the preferred approach in lieu of using the default engine load factor. Therefore, EPA has decided not to change the permit to allow for the use of other default load factors. In addition, EPA has clarified the permit to reflect that fuel usage is the preferred approach for daily emissions calculations.

Revision to the Draft Permit based on Comment 14: Section V.A.4.a. has been revised as follows:

a. ~~"An engine load factor of 0.69 or, alternatively, T~~he engine load factor ~~can~~should be calculated using actual fuel usage data, engine operating time, manufacturing load and fuel consumption rate information, and the following formula:

$$LF = V \div T \div R_{max}$$

Where:

- LF = engine load factor
- V = volume fuel consumed during engine operation, gal
- T = engine operating time, hours
- R_{max} = fuel consumption rate at maximum engine power, gal/hr

Alternatively, if actual fuel usage data is not available, the Permittee may use an engine load factor of 0.69"

Comment 15: VW commented that Section V.A.4.b provides emission factors for domestically flagged vessels including NO_x and VOC emission factors for Category 1 and Category 2 engines without a Tier certification. It does not provide emission factors for Category 3 engines without Tier certifications on domestically flagged vessels. For completeness, we recommend that EPA include Category 3 NO_x emission factors derived from "Table 3-5: Emission Data from Baseline Category 3 Marine Diesel Engines" of the 1998 Draft Regulatory Impact Analysis. The 1998 Draft Regulatory Impact Analysis does not contain emission factors for VOCs. Vineyard Wind therefore recommends using the VOC emission factors from Table 3 of the Draft Permit. For vessels without Tier certifications, Vineyard Wind requests the ability to replace default emission factors with vessel or engine-specific emission test data supported with appropriate

documentation, such as stack testing data.

Response 15: The EPA believes there are two distinct comments within comment no. 15, and we respond accordingly. The first comment relates to the lack of emission factors for Category 3 engines without Tier certificates. Although Section IV.D.4 does not allow for a vessel with category 3 size engines that meets the definition of an OCS source to use Tier 0 engines, the EPA recognizes that the permittee may operate such a vessel within or traveling to and from the WDA. Therefore, the EPA agrees with the commenter and has added emission factors in Section V.A.4.b. for vessels with tier 0 category 3 size engines.
The second comment relates to Section V.A.4.b and requests the ability to replace default emission factors with alternate emission factors based on vessel- or engine-specific emission test data with appropriate documentation. The EPA is not changing the permit as requested by the commenter to use vessel- or engine-specific emission test data in section V.A.4.b because the approach requested by the commenter would need to be evaluated on a case-by-case basis for applicability to the vessel or engine, as well as for consistency with EPA-approved test methods and procedures. At the time of the issuance of this permit, the EPA does not have enough information to approve the use of alternate emission factors based on vessel- or engine-specific test data. Therefore, the EPA has made no change to the permit based on this second part of Comment 15.

Revision to the Draft Permit based on Comment 15: Section V.A.4.b. has been revised as follows:

> "iii. For category 3 engines 19.5 g/kW-hr for NO_x and Table 3 emission factors for VOC in this permit"

Comment 16: Section V.A.4.c: VW commented that unlike §V.A.4.b for domestically flagged vessels, § V.A.4.c does not provide emission factors for foreign flagged vessels without IMO certifications. Vineyard Wind requests that the default NOx emission factors for domestic vessels also apply to foreign vessels without IMO Tier certifications (including factors for Category 3 engines as discussed in §V.A.4.b). Default VOC emission factors should be the same as set forth in Table 3 of the Draft Permit. For vessels without IMO Tier certifications, Vineyard Wind requests the ability to replace default emission factors with vessel or engine-specific emission test data supported with appropriate documentation, such as stack testing data and international regulatory agency certifications.

Response 16: The EPA believes there are two distinct comments within comment no. 16, and we respond accordingly. First, although Section IV.D.5 requires all foreign flagged vessels that meet the definition of an OCS source to have an IMO certification, the EPA recognizes that the permittee may operate a foreign flagged vessel within or traveling to and from the WDA that does not have an IMO certification. Therefore, the EPA agrees with the commenter and has added emission factors in Section V.A.4.c. for foreign flagged vessels without IMO certifications.

The second comment relates to Section V.A.4.c and requests the ability to replace default emission factors with alternate emission factors based on vessel- or engine-specific emission test

data with appropriate documentation. The EPA is not changing the permit as requested by the commenter to use vessel- or engine-specific emission test data in section V.A.4.c because the approach requested by the commenter would need to be evaluated on a case-by-case basis for applicability to the vessel or engine, as well as for consistency with EPA-approved test methods and procedures. At the time of the issuance of this permit, the EPA does not have enough information to approve the use of alternate emission factors based on vessel- or engine-specific test data. Therefore, the EPA has made no change to the permit based on this second part of Comment 16.

Revision to the Draft Permit based on Comment 16: Section V.A.4.c. has been revised to include the following language:

> "For category 3 engines and foreign flagged vessels without IMO certifications: 19.5 g/kW-hr for NO_x and Table 3 emission factors for VOC below."

Comment 17: VW commented that section VIII.5.c requires Vineyard Wind to record daily the "emission factor associated with the engine certification (or the emission factor identified in Table 3, as applicable) used in determining the daily emissions required by section V. of this permit." The term "engine certification" is inconsistent with §§ V.A.4.b and V.A.4.c, which set forth emission factors to be used where Tier certifications are not available. In addition, as discussed in §§ V.A.4.b and V.A.4.c above, Vineyard Wind requests the ability to replace default emission factors with vessel or engine-specific emission test data supported with appropriate documentation. To be consistent with §§ V.A.4.b and V.A.4.c and Vineyard Wind's request (if granted) to use vessel or engine-specific emission test data, Vineyard Wind requests that §VIII.5.c be restated to read "emission factor used in determining the daily emissions required by section V. of this permit."

EPA's Response to Comment 17: The EPA believes there are two distinct comments within comment no. 17, and we respond accordingly. The first comment in Comment 17 relates to the requirement in section VIII.5.c regarding the term "engine certification" being inconsistent with the language in sections V.A.4.b and V.A.4.c. Section V.A.4.b in the draft permit requires that the emission factor "shall be the… emission rate for the Tier level the engine has been certified to meet." Section V.A.4.c in the draft permit requires that the "emission factor for NO_x shall be the emission rate for the Tier level engine in Table 2 of this permit." Therefore, the EPA disagrees that the term "engine certification" is inconsistent with the requirements in sections V.A.4.b. and c. However, EPA agrees with Vineyard Wind that sections V.A.4.b and V.A.4.c. of the permit allow the use of alternate factors for engines without certifications. In section VIII.5.c. of the permit, EPA unintentionally omitted a reference to the emission factors in sections V.A.4.b. and c.

The second comment relates to requirements in section V.A.4.b and V.A.4.c and requests the ability to replace default emission factors with alternate emission factors based on vessel- or engine-specific emission test data with appropriate documentation. As stated in our response to Comment 15 and 16, the EPA disagrees with the commenter's request to allow the use of vessel- or engine-specific emission test data as alternate emission factors in section V.A.4.b and V.A.4.c because the approach requested by the commenter would need to be evaluated on a case by case

basis for applicability to the vessel or engine, as well as for consistency with EPA-approved test methods and procedures. At the time of the issuance of this permit, the EPA does not have enough information to approve the use of alternate emission factors based on vessel- or engine-specific test data. Therefore, the EPA has made no change to the permit based on this second comment in Comment 17.

Revisions to the Draft Permit based on Comment 17: Section VIII.5.c has been revised as follows:

> "Emission factor associated with the engine certification, or the emission factor specified in sections V.A.4.b. or c., as applicable used in determining the daily emissions required by section V. of this permit;"

Comment 18: VW commented that section V.A.5 requires by the last day of each calendar quarter that Vineyard Wind have acquired NO_x and VOC Discrete Emission Reduction Credits (DERCs) that equal or exceed actual emissions required for the next two calendar quarters multiplied by 1.26. DERCs are required to satisfy Massachusetts offset requirements found in 310 CMR 7.00 Appendix A. 310 CMR 7.00: Appendix A(6)(e)(1) uses a 1.2 multiplier to determine the amount of emissions required to be offset, not a 1.26 multiplier. VW also commented that it is only when DERCs are acquired from the Massachusetts trading bank under 310 CMR 7.00 Appendix B(3)(e)2 that an additional five percent of DERCs are required thereby increasing the multiplier to 1.26. VW also commented that the extra five percent is addressed through the MassDEP transaction process. VW stated that therefore the 1.26 multiplier stated in § V.A.5 is incorrect. VW requested that the phrase "multiplied by 1.26" in § V.A.5 be corrected to state "multiplied by 1.2." Section V.A.6: VW also commented that for the same reasons discussed under §V.A.5, the phrase "multiplied by 1.26" in § V.A.6 should be corrected to state "multiplied by 1.2."

EPA's Response to Comment 18: The EPA agrees with the commenter that under the Commonwealth's regulations, the requirement to obtain and retire an additional 5% of Emission Reduction Credits (ERCs) is limited to ERCs obtained from the Commonwealth's Emissions Trading Bank. Therefore, the EPA is revising the offset ratio for DERCs from 1.26:1 in the draft permit to 1.2:1 in section V.A.6 of the final permit when DERCs are obtained outside of the Commonwealth's Emissions Trading Bank. As a result of this change, the words "multiplied by 1.26" are unnecessary in section V.A.5. and will not be included in the final permit. Finally, it is not clear to EPA exactly what the commenter intends by the following sentence: "However, the extra five percent is addressed through the MassDEP transaction process." EPA's understanding of the Massachusetts trading bank is that a Permittee must obtain from the bank (if the bank is used) an amount of emissions offsets equal to the amount of the Permittee's emissions times 1.2 as required by 310 CMR 7.00, Appendix A, section (6)(e), plus an additional five percent.

Revisions to the Draft Permit based on Comment 18: Section V.A.5. has been revised as follows:

> "By the last day of each calendar quarter, the Permittee shall have acquired and possess a quantity of NO_x and VOC DERCs that equals or exceeds the quantity of actual NO_x and

VOC offsets required for the next two calendar quarters~~, multiplied by 1.26,~~ and rounded up to the nearest whole ton."

Section V.A.6. has been revised as follows:

On or before the twentieth day of the first month following each calendar quarter, the Permittee shall deduct a quantity of NO_x and VOC DERCs from the current balance of NO_x and VOC DERCs possessed by the Permittee such that the total deducted is equal to the sum of actual NO_x and VOC emissions in the preceding calendar quarter, multiplied by either 1) 1.26 if the DERCs are obtained from the Massachusetts trading bank regulations codified at 310 CMR 7.00, Appendix B or 2) 1.2 if the DERCs are obtained using the mechanism in permit condition V.A.1.b. or V.A.1.c. of this permit, and rounded up to the nearest whole ton. The sum of actual NO_x and the sum of actual VOC emissions for a calendar quarter shall be determined by adding the daily NO_x and VOC emissions, calculated in accordance with permit conditions V.A.4, for the preceding calendar quarter.

Comment 19: VW commented that Section VIII.4 requires Vineyard Wind to maintain copies of certifications that demonstrate compliance with Tier standards and identifies the applicable EPA regulations for domestically flagged vessels. VW commented that for completeness, we recommend that EPA add a sentence that states, "For foreign flagged vessels the different Tier standards are found at Regulation 13 of MARPOL Annex VI."

EPA's Response to Comment 19: The EPA agrees with commenter and has clarified Section VIII.4.

Revisions to the Draft Permit based on Comment 19: Section VIII.4. has been revised as follows:

"Copies of certifications that demonstrate the Tier standard the engine was manufactured to meet for each engine on each vessel that meets the definition of an OCS source. The different Tier standards are found in 40 CFR Parts 89, 94, 1039, or 1042. For foreign flagged vessels the different Tier standards are found at Regulation 13 of MARPOL Annex VI."

Comment 20: Section VIII.8.a: VW commented that for each fuel delivery to an engine on an OCS source, Section VIII.8.a requires Vineyard Wind to record whether fuel is for an auxiliary or propulsion engine. VW also stated that some vessels use only one fuel system for both propulsion and auxiliary engines making compliance with this record keeping requirement impossible. VW also commented that EPA's rationale for separately recording fuel use for propulsion and auxiliary engines is unclear as there are no other permit requirements that differentiate between propulsion and auxiliary engines. VW therefore requested that §VIII.8.a's requirement to record "whether the fuel is used for an auxiliary engine or for an engine that is part of the vessel's propulsion system" be removed.

EPA's Response to Comment 20: The EPA agrees with the commenter that vessels with only one fuel system would be unable to comply with Section VIII.8.a. The removal of the language "whether the fuel is used for an auxiliary engine or for an engine that is part of the vessel's

propulsion system" will not impact the monitoring and recordkeeping requirements necessary for determining Vineyard Wind's compliance with Condition IV.D.2 of the permit. Therefore, EPA has agreed to make this change to the permit.

Revisions to the Draft Permit based on Comment 20: Section VIII.8.a. has been revised as follows:

> "The name of the vessel ~~and whether the fuel is for an auxiliary engine or for an engine that is part of the vessel's propulsion system~~."

Comments from Ms. Mary Crowell

Comment 21: Ms. Crowell commented that she is concerned about the proposed windfarm. She stated that she has heard there will be a substantial amount of oil used to maintain the wind turbines, which will be located in one of the most pristine areas of the eastern seaboard. She stated that there will be possible harm to wildlife, as well as damaging effects of pile driving over one of the largest aquifers in the United States. She commented that she would like to see construction delayed until more thorough research can be done on the ramifications of the end product.

EPA's Response to Comment 21: A thorough analysis related to concerns raised by the commenter has been completed by the Bureau of Ocean Energy Management (BOEM) through the environmental review of the project pursuant to the National Environmental Policy Act (NEPA), including any possible harm to wildlife related to oil spills in the project area. The EPA is a co-action agency with BOEM and participates in the NEPA environmental review process. In a letter dated September 24, 2018, BOEM formally accepted the role as the lead agency for EPA's compliance obligations under the Endangered Species Act, the Magnuson-Stevens Act, and National Historic Preservation Act. BOEM issued a Final Environmental Impact Statement (FEIS) on March 12, 2021. The FEIS assesses the potential environmental, social, economic, historic, and cultural impacts that could result from the construction, operation, maintenance, and future decommissioning of the proposed Vineyard Wind offshore wind farm. Specific to Ms. Crowley's comments, the FEIS evaluated possible impacts to coastal waters from contaminants (such as fuel, sewage, solid waste or chemicals, solvents, oils, or grease from equipment) in the event of a spill during routine vessel use. BOEM also evaluated impacts to wildlife, both terrestrial and aquatic, from the proposed project, including Section 7 consultation under the Endangered Species Act with the National Marine Fisheries Service. The potential environmental impacts of pile-driving activities and groundwater at onshore substations were also assessed during the NEPA process. BOEM's FEIS and NEPA Record of Decision can be found on BOEM's website at https://www.boem.gov/vineyard-wind. Based on these analyses, EPA does not see a need to delay this permit or make any changes to the final permit. Further, the windfarm's use of oil is not something that EPA has the authority to regulate in this permitting action. In this action, EPA is applying construction permitting requirements under the Clean Air Act that serve to protect air quality.

Comments from Mr. Brian C. Austin, Acting Forest Supervisor, United States Department of Agriculture, Forest Service, Green Mountain and Finger Lakes National Forests;

Comment 22: Mr. Austin commented that the Forest Service had reviewed the proposed permit and the supplemental memorandum provided by Vineyard Wind on March 27, 2019. Mr. Austin indicated that the distance from the nearest proposed turbine to the Class I area was 301 km, and that the highest emissions associated with the project occur during year one and drop significantly after construction is complete. Mr. Austin also noted the conservatism (i.e., likely overestimation) of the emissions from the proposed sources, including mobile sources. The Forest Service also concurred that it was not appropriate to assess air impacts by dividing the emission quantity by the distance, given the wide area over which emissions will occur. The Forest Service also commented that it was not technically feasible to apply the VISCREEN model beyond 50 km. Mr. Austin concluded that the Forest Service will not be requesting Air Quality Related Values analyses for the Vineyard Wind project due to the information listed above and considering the temporary nature of the emissions and the long-term emission reduction that will occur once the project is complete.

EPA's Response to Comment 22:

Based on the Forest Service's assessment, the EPA agrees that no further analyses will be required for Air Quality Related Values. The EPA agrees that the emissions will be occuring for a temporary period over a relatively wide area that is a considerable distance from the Lye Brook Class I area. The EPA concurs with the Forest Service that the VISCREEN approach is not technically feasible, and that the total emissions over distance calculation is overly conservative (i.e., overstates the potential impacts) for this application. The EPA will continue to provide the Forest Service with any significant updates about this project and other projects that may have an impact on the Lye Brook, Great Gulf, or Presidential Range-Dry River Wilderness areas.

Comments from Colonel Stephen G. Waller, , USAF (retired)

Comment 23: Colonel Waller submitted comments after the close of the comment period, but EPA provides a response to his comments in any case. Colonel Waller's comments were very supportive of the windfarm project, noting that the windfarm would result in the United States being less energy dependent on foreign countries. He encouraged EPA to move forward and approve the project.

EPA's Response to Comment 23: EPA appreciates Colonel Waller's support for the project.

Comments from Mr. Paul Vigeant

Comment 24: Mr. Vigeant provided testimony at the public hearing. His comments were very supportive of the windfarm project and he encouraged EPA to issue the permit.

EPA's Response to Comment 24: EPA appreciates Mr. Vigeant's support of the project.

B. Other changes to the permit:

The following changes to the draft permit are either administrative or are required by the plain language of the Clean Air Act and were inadvertently omitted by EPA.

1. In section V.A.2.c., EPA unintentionally omitted the words "at the WDA facility or." EPA is also replacing in one place the word "and" with the word "or." These changes are necessary to ensure that the permit condition conforms to the third sentence in the definition of OCS source in CAA section 328(a)(4)(C). Therefore, EPA is amending section V.A.2.c. to read:

   "all engines on vessels servicing or associated with the WDA facility when those vessels are at the WDA facility, or en route to ~~and~~ or from the WDA facility and are within 25 miles of the WDA facility's centroid."

2. Sections V.A.5., V.A.6., and IX.11 contained terms inconsistent with other sections of the permit as it relates to the obligation for VW to obtaining offset. EPA unintentionally included the difference in terms "acquire" or "possess" as opposed to "obtain", as it related to VW's obligation to obtain a sufficient quality of offsets. In order to maintain consistency in terminology throughout the document, EPA has revised these terms "acquire" and "possess" to the verb "obtain" in sections V.A.5., V.A.6., and IX.11.

3. In section VIII.8., EPA unintentionally used the term "oil" to describe diesel fuel. Therefore, for consistency, all instances of "oil", in this section were replaced with "fuel" as follows:

   For all engines operating on OCS sources (including vessels meeting the definition of an OCS source), the Permittee shall provide fuel supplier certifications, for each fuel delivery, documenting the following:

   a. The name of the vessel;

   b. The name of the ~~oil~~ fuel supplier;

   c. The sulfur content of the ~~oil~~ fuel;

   d. The method used to determine the sulfur content of the ~~oil~~fuel;

   The location of the ~~oil~~fuel when the sample was drawn for analysis to determine the sulfur content of the ~~oil~~fuel; specifically including whether the ~~oil~~fuel was sampled as delivered to VW or whether the sample was drawn from ~~oil~~fuel in storage at the ~~oil~~fuel supplier's or ~~oil~~fuel-refiner's facility or another location;

   If the ~~oil~~fuel was not sampled as delivered, a statement that the sampling was performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" and that no additions have been made to the supplier's tank since sampling.

4. On May 11, 2021, Vineyard Wind submitted a letter to EPA requesting the permit be issued to Vineyard Wind 1, LLC. This request stems from a corporate restructuring by the company which occurred since the draft permit was issued. Consistent with this request, EPA will issue the final permit to Vineyard Wind 1, LLC. The request was labelled "Confidential Business Information," however a redacted version of the letter is included in the administrative record for this permitting action.

5. The Fact Sheet and Statement of Basis document associated with the draft OCS permit identifies Donald Dahl as the EPA contact for the proposed action. Mr. Dahl has since retired from the EPA after over 34 years of federal service. The Fact Sheet and Statement of Basis document is considered a final document, and changes cannot be made to it; however, should members of the public have questions about this action, we recommend contacting:

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