



**U.S. Army Corps
Of Engineers**
Norfolk District

Fort Norfolk, 803 Front Street
Norfolk, Virginia 23510-1096

DEPARTMENT OF THE ARMY PERMIT

Permittee: Dominion Energy Virginia c/o Joshua J. Bennett
Permit No.: NAO-2013-00418 / 408-NAO-2022-0056 / VMRC# 22-V1183
Issuing Office: U.S. Army Corps of Engineers Norfolk District Regulatory Branch
(CENAO-WR-R)

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below pursuant to:

- ☒ Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- ☒ Section 404 of the Clean Water Act (33 U.S.C. 1344)
- ☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)
- ☒ Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408 (Section 408))

PROJECT DESCRIPTION:

You are hereby authorized to construct a 2,587-megawatt (MW) offshore wind project, known as the Coastal Virginia Offshore Wind (CVOW) Commercial Project, located within the Atlantic Ocean off the coast of Virginia, which will include associated infrastructure within the cities of Virginia Beach and Chesapeake, Virginia. In 2020 the Virginia General Assembly passed the Virginia Clean Economy Act (VCEA) to support the development of 2,500-3,000 MW of clean and reliable offshore wind energy to be in service by 2028. The purposes of this project are to help meet the goals of VCEA and to help reduce electricity generated by fossil fuel-power plants while offering economic and environmental benefits to the region.

The offshore portion of the project will include the installation of one hundred seventy-six (176) 14.7 MW wind turbine generators (WTGs) located within a 112,799-acre Lease Area approximately 27 miles off the Virginia Beach, Virginia coastline. Approximately 180-foot maximum diameter of stone scour protection will be installed around the WTGs. The project will also include the construction of three (3) Offshore Substations

(OSS) with approximately 0.95 acres of scour protection, and approximately 229 miles of 660-kilovolt (kV) Inter-array Cables. In addition, nine (9) buried 230 kV Offshore Export Cables will extend from the Lease Area to the Onshore Cable Landing Area. The Offshore Export Cables will cross Cells 2 and 5 of the Dam Neck Ocean Disposal Site (DNODS) and three (3) existing fiber optic, in-service telecommunications cables; twenty-seven (27) 39.5-foot-long by 9-foot-wide by 0.5-foot-tall bottom protection concrete mattresses and twenty-seven (27) 138-foot-long by 9-foot-wide by 0.5-foot-tall top protection concrete mattresses will be installed to protect the proposed Offshore Export Cables at these locations. Nine (9) temporary cofferdams will be installed at the Nearshore Trenchless Installation Punch-Out locations to facilitate lowering the Direct Pipe within the transition zones where the Offshore Export Cables exit the sea floor. If it is determined that the use of cofferdams is not feasible during construction, then nine (9) 82-foot-long by 6.6-foot-wide by 1-foot-high concrete mattresses will be installed above the transition zones as added cable protection. In addition, up to 108 temporary steel pipe piles may be installed along the HDD pipe alignments to act as “goal-posts” to the Punch-Out locations during construction.

Prior to construction, the offshore project area will be surveyed using a Remotely Operated Vehicle (ROV) with a suction pump attachment to identify potential Munitions and Explosives of Concern (MEC) and Unexploded Ordnance (UXO) targets that cannot be avoided. The proposed mitigation of MEC/UXO for the project is limited to relocation via “lift and shift” measures. The Permittee does not intend to conduct deflagration or detonation of MEC/UXO. It is anticipated that an average disturbance of 161.5-square-feet of ocean bottom per mitigation of one MEC/UXO will be required as detailed in the MEC/UXO Disposition Plan and MEC/UXO Identification Survey Reports.

The onshore portion of the project will begin where the Offshore Export Cables come onshore at the Cable Landing Location at the State Military Reservation (SMR) in Virginia Beach, Virginia. The cables will then transition to nine (9) underground 230 kV Onshore Export Cables, which will extend underground approximately 4.4 miles from the SMR to the proposed Harpers Switching Station located on Naval Air Station Oceana. From the Harpers Switching Station, the Onshore Export Cables will transition to Overhead Interconnection Cables and extend approximately 14.2 miles along new, existing, and expanded right-of-way corridors to the existing Fentress Substation in Chesapeake, Virginia. The Onshore work will result in permanent impacts to approximately 1.70 acres of palustrine emergent wetlands, 0.68 acres of palustrine scrub/shrub wetlands, 7.98 acres of palustrine forested wetlands, and 153 linear feet of stream, and the conversion of approximately 29.70 acres of palustrine forested wetlands to palustrine scrub/shrub wetlands, and temporary impacts to approximately 0.38 acres of palustrine scrub/shrub and 25.46 acres of palustrine emergent wetlands.

PROJECT LOCATION: The project will be located within the Atlantic Ocean off the coast of Virginia at the mouth of the Chesapeake Bay within the Bureau of Ocean Energy Management (BOEM) Lease Area No. OCS-A-0483, extending along an offshore cable corridor to a point on the shore at the Virginia State Military Reservation

(SMR) in Virginia Beach, Virginia, then extending along an onshore utility corridor within the cities of Virginia Beach and Chesapeake, Virginia.

Latitude and Longitude coordinate locations:

Offshore Lease Area: 36.9955, -75.2157

Onshore Route Start: 36.8162, -75.9701

Onshore Route Terminus: 36.6909, -76.1894

PROJECT SPECIFIC SPECIAL CONDITIONS:

1. **Preconstruction Notification:** Prior to the commencement of any work authorized by this permit, you shall advise the project manager, Nicole Woodward, via email at Nicole.L.Woodward@usace.army.mil or in writing at: Norfolk District, Corps of Engineers, 803 Front Street, Norfolk, Virginia 23510, at least two weeks in advance of starting work authorized by this permit. Alert the project manager of the anticipated start date of the authorized activity and the name and telephone number of all contractors or other persons performing the work. A copy of this permit and drawings must be provided to the contractor and kept on site at all times and must be available to any regulatory representative during an inspection of the project site.
2. **Permit Expiration:** The time limit for completing the work authorized ends on January 29, 2029. Should you be unable to complete the authorized activity in the time limit provided, you must submit your request for a time extension to this office for consideration at least one month before the permit expiration date.
3. **Compliance Certification:** You must sign and return the enclosed "compliance certification" form within 90 days of completion of the project, including any required mitigation. Your signature on this form certifies that you have completed the work in accordance with the permit terms and conditions.
4. **Final Plans and Specifications Submittals:** You shall submit Final Plans and Specifications for authorized activities for written Corps approval prior to initiation of permitted activities.
5. **Preconstruction Conference:** You are not authorized to begin clearing or construction activities in navigable waters or waters of the U.S. (including wetlands) associated with this permit until you hold an on-site preconstruction conference to ensure that all affected parties fully understand the requirements of this permit. You must hold this meeting or a designated representative with your agent/consultant, the contractor, the contractor's foreman, and Nicole Woodward, the Corps project manager for your permit. To arrange this meeting, contact Nicole Woodward via email at Nicole.L.Woodward@usace.army.mil or via telephone at (757) 201-7122.
6. **Authorized Project Plans:** You are prohibited to destruct or alter waters of the U.S (including wetlands) other than those impacts authorized under this permit. The extent of authorized wetland and stream impacts are depicted on the drawings

entitled “Coastal Virginia Offshore Wind: Joint Permit Application,” prepared by Tetra Tech dated June 14, 2023, and July 11, 2023, and Corps date stamped as received on June 30, 2023, and July 12, 2023, respectively.

These impacts are further detailed in the following drawings Corps date stamped as received on June 30, 2023: “Coastal Virginia Offshore wind 230-KV Onshore Underground Transmission,” prepared by Burns & McDonnell dated March 28, 2022, April 18, 2022 and June 27, 2022; “10’-0” x 26’-0” x 8’-0” Transmission Vault,” prepared by Oldcastle Infrastructure dated March 27, 2019; “Dom Steel Pole Installation Details Direct Embedded w/ENGR Backfill,” prepared by Dominion Energy dated May 20, 2014; “Dom Pole Installation Details/Pipe Pile” Transmission Vault,” prepared by Dominion Energy dated May 1, 2020; “General Arrangement Plan Fentress Substation,” prepared by Dominion Energy dated October 1, 2021; “General Arrangement Plan Harpers Switching Station,” prepared by Dominion Energy dated September 30, 2021; “Proposed Configuration- Typical Corridor Looking Toward Harpers”; “Transmission Construction,” prepared by Dominion Energy dated May 16, 2014, and June 16, 2014; “SWM A Extended Detention Plan- Harpers Substation,” “SWM B Extended Detention Plan- Harpers Substation,” and “SWM C Extended Detention Plan- Harpers Substation,” prepared by Dewberry, dated March 30, 2023; “Grading and Drainage Plan- MWR Permanent Maintenance Yard,” prepared by Dewberry; “SWM A1 Sand Filter Plan- MWR Permanent Maintenance Yard,” prepared by Dewberry; “Site Improvements Exhibit- Fentress Substation Expansion,” prepared by Dewberry, dated April 18, 2023; “ESC Details,” prepared by Stantec, dated April 19, 2023; “Preliminary Crossing Drawing,” prepared by Dominion Energy, dated June 13, 2023; “Coastal Virginia Offshore Wind- Commercial: Plan and Profile,” “Coastal Virginia Offshore Wind- Commercial: Export Cables Crossings,” “Coastal Virginia Offshore Wind- Commercial: Direct Pipe Punch Out,” “Coastal Virginia Offshore Wind- Commercial: General Route Plan,” and “Coastal Virginia Offshore Wind- Commercial: WTG General Arrangement,” prepared by Ramboll, dated May 16, 2023.

7. COP Approval: You must submit the final U.S. Department of the Interior Bureau of Ocean Energy Management’s (BOEM) Coastal Virginia Offshore Wind Commercial Project Construction and Operations Plan (COP) approval, and any future modifications or waivers to the COP conditions, to the Corps within 30 days of receipt. As the Corps also has jurisdiction on the Outer Continental Shelf (OCS) and BOEM was the lead federal agency for the National Environmental Policy Act (NEPA) and several agency consultations, numerous DA permit conditions are analogous to BOEM’s anticipated conditions of COP approval. These conditions may also apply to nearshore areas within 3 nautical miles of the shoreline and to onshore waters that fall under the Corps’ Section 10 and Section 404 jurisdiction. The Corps will review BOEM’s final conditions of COP approval, as well as any future modifications or waivers to the COP conditions, to determine if a DA permit modification will be required to align these DA permit conditions with the analogous conditions in the COP approval. You must provide the Corps with all applicable

reports, plans, and approvals required as a condition of the COP for activities occurring within the Corps' jurisdiction.

CONSTRUCTION PROTECTION MEASURES

8. You must clearly mark in the field in a highly visible manner, such as 4-foot high orange construction fencing or barrier fencing, the residual waters of the U.S (including wetlands) that are accessible within the project construction corridors (those areas that will not be impacted under this permit) that are located within 50 feet of any proposed clearing, excavation, and construction activities prior to commencing work onsite to ensure that additional wetlands and streams are not inadvertently impacted during construction activities.
9. You must countersink all pipes and culverts placed in streams at both inlet and outlet ends. Pipes that are 24" or less in diameter shall be countersunk 3" below the natural stream bottom. Pipes that are greater than 24" shall be countersunk 6" below the natural stream bottom. The countersinking requirements do not apply to bottomless pipes/culverts or pipe arches. In sets of multiple pipes or culverts (with bottoms) at least one pipe or culvert shall be countersunk at both the inlet and outlet to convey low flows.
10. When countersinking culverts, you must ensure reestablishment of a surface water channel (within 15 days post construction) that allows for the movement of aquatic organisms and maintains the same hydrologic regime that was present pre-construction (i.e., the depth of surface water through the permit area should match the upstream and downstream depths). This may require the addition of finer materials to choke the larger stone and/or rip rap to allow for a low flow channel.
11. You shall not grub, level, or stump waters (including wetlands) associated with construction of underground utilities that are located outside of the permanent utility easement.
12. For onshore work, you must place and stabilize excess excavated material from a trench not used as backfill on an upland site to prevent its return to the waterway.

RESTORATION OF TEMPORARY IMPACTS

13. You must clearly mark in the field and identify to the project contractor(s) prior to commencing work in wetlands the location and extent of all wetland areas and other waters of the U.S. that will be used for temporary construction access or temporary easements for utility to ensure that additional waters (including wetlands) are not impacted.
14. The soils of any temporarily impacted areas located in wetlands that are cleared, grubbed, excavated, dredged, and/or filled must be restored once these areas are no longer needed for their authorized purpose, no later than completion of project

construction, and not to exceed twelve (12) months after commencing the temporary impacts. To restore, temporary fill must be removed in its entirety and the affected areas returned to preconstruction elevations, the soil surface loosened by ripping or chisel plowing to a depth of 8-12", and then seeded using native wetland species. Fill or dredged material in waters of the U.S. that is not removed within the 12-month period will be considered a permanent impact, unless otherwise determined by the Corps. This additional impact to waters of the U.S. may result in the Corps initiating a permit non-compliance action, which may include a restoration order, after-the-fact permitting, compensatory mitigation, or other enforcement actions.

15. You must seed all temporarily impacted wetland areas with a non-invasive, non-perennial mixture, or simply, annual rye grass. At the appropriate time of year, apply an appropriate wetland seed mix approved by the Corps in writing to ensure wetland vegetation establishes.
16. You must loosen by ripping or chisel plowing the soil surface to the depth of 8-12" the soils of any temporary construction access areas located in wetlands that are cleared, grubbed, and/or filled once each access is no longer needed. You must replant the resulting grade with bare root native woody plants at a rate of 400 plants per acre. Acceptable woody plants include but are not limited to 2-4 of the following native species: wax myrtle (*Morella cerifera*), red maple (*Acer rubrum*), sweet gum (*Liquidambar styraciflua*), black willow (*Salix nigra*), black gum (*Nyssa sylvatica*), spicebush (*Lindera benzoin*), and tag alder (*Alnus serrulate*). Substitution of other native woody species is subject to Corps review and approval. You must complete this restoration work within 30 days of the abandonment of the access areas.
17. Within 90 days of commencing the authorized activities in jurisdictional waters (including wetlands), a detailed restoration plan shall be developed for temporary fills, including pre- and post-construction monitoring and adaptive management, and provided to the resource agencies for review. The restoration plan must document baseline conditions using an assessment method, such as, but not limited to, the Norfolk District Wetland Assessment Form, and it must document elevations through georeferenced photographs and surveys. It should also explain how all temporary fills and structures will be removed and the areas restored to pre-project conditions, including a monitoring plan with measurable success criteria based on the baseline information. The restoration plan must also require submission of post-construction georeferenced photographs and surveys to demonstrate that the impacts are in fact temporary and successfully restored. The restoration plan should include an adaptive management plan (AMP) that outlines measures to be taken if temporarily impacted areas fail to achieve success criteria. Should post-construction monitoring demonstrate that the wetland is not recovering to pre-construction conditions, the plan should detail additional corrective measures that may be undertaken, including the requirement of additional compensatory mitigation to offset those impacts.

Post Construction Monitoring:

- a. Upon completion of the project, as built project drawings will be submitted to the Corps.
- b. A written monitoring report for all restored areas shall be submitted to the Corps at the end of the first full growing season following the planting and one (1) year later. The monitoring should be undertaken between June 1 and November 30 for each monitoring period and submitted to the Corps no later than December 31 of each year. The report will indicate dates at which all information in the report was collected. At a minimum, the monitoring report should include:
 - 1) The permit application number.
 - 2) A summary of the work accomplished, including the dates at which all the information in the report was collected, and a brief statement on the success of the project.
 - 3) Digital photographs from a designated observation point identified on a plan view drawing of the project site and taken at high and low tides.
 - 4) The percent cover of herbaceous vegetation, visually estimated within a ten-foot radius of the designated sample plot.
- c. Performance Criteria: The planted marsh area must have a minimum of 80% aerial coverage of native wetland plant species by the end of year two of the monitoring period. If the area has not successfully become vegetated with wetland species within a two-year time period, the applicant may be required to augment the plantings to meet the minimum of 80% aerial coverage during the next growing season. After the two-year time period, the site will be evaluated to determine if additional monitoring will be required.

INVASIVE SPECIES CONTROL

18. Within 90 days of commencing the authorized activities in jurisdictional waters (including wetlands), you must develop an Invasive Species Control Plan to prevent the introduction and spread of invasive species throughout the maintained right-of-ways and recently disturbed areas and provide this plan to the resource agencies for review. This plan should detail standard Best Management Practices (BMPs) that will be incorporated into the project plans to reduce the spread of invasive species to previously uncolonized areas, and it should include an AMP that addresses the measures to be taken should invasive species become colonized within temporarily disturbed project areas.
19. If giant reed (*Phragmites australis*) or cattails (*Typha* spp.) become established in the temporary construction access area, you are required to take all appropriate measures to control/eradicate this species, including the application of herbicides. Herbicide applications must be conducted in accordance with all state/federal application laws and regulations and accepted by the Corps.
20. You must document the occurrence of invasive lionfish (*Pterois volitans* and *P. Miles*), as detailed in the COP's required foundation scour monitoring report, and provide a copy of this report to the Corps.

COMPENSATORY MITIGATION

21. Based on the Corps approved compensatory mitigation plan, as compensation for impacts to 44.37 acres of wetlands, including permanent impacts to 7.93 acres of Palustrine Forested Wetlands, 0.68 acres of Palustrine Scrub/Shrub Wetlands, 1.7 acres of Palustrine Emergent Wetlands and the conversion of 25.76 acres of Palustrine Forested Wetlands, you are required to purchase 44.34 wetland credits from the Dover Farm Wetland Mitigation Bank. The number of credits to be purchased is based on the application of the Norfolk District standard ratios (2:1, 1.5:1, 1:1, and 1:1, respectively). You must submit evidence that you have purchased these credits to the Corps prior to commencing the authorized activity(ies) in jurisdictional waters (including wetlands). In the event that the Bank identified above no longer has the appropriate type/number of credits available, please contact the Project Manager to request a permit modification.
22. Based on the Corps approved compensatory mitigation plan, as compensation for impacts to 154 linear feet of stream channel, you are required to purchase 101 stream credits from the Virginia Aquatic Resources Trust Fund (VARTF). The number of credits to be purchased is based on the application of the Norfolk District Unified Stream Methodology. You must submit evidence that that you have purchased these credits to the Corps prior to commencing the authorized activity(ies) in jurisdictional waters and wetlands. In the event that the VARTF no longer has the appropriate type/number of credits available, please contact the Project Manager to request a permit modification.
23. Based on the Corps approved compensatory mitigation plan, as compensation for impacts to 3.99 acres of wetlands, including permanent impacts to 0.05 acres of Palustrine Forested Wetlands and the conversion of 3.94 acres of Palustrine Forested Wetlands, you are required to purchase 4.04 credits from the Virginia Aquatic Resources Trust Fund (VARTF). The number of credits to be purchased is based on the application of the Norfolk District standard ratios (2:1 and 1:1, respectively). You must submit evidence that you have purchased these credits to the Corps prior to commencing the authorized activity(ies) in jurisdictional waters (including wetlands). In the event that the VARTF no longer has the appropriate type/number of credits available, please contact the Project Manager to request a permit modification.

PROTECTED SPECIES

24. **USFWS Section 7 Consultation Under the Endangered Species Act (ESA):**
This DA permit does not authorize the Permittee to take any terrestrial endangered species. In order to legally take a listed species, the Permittee must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which the Permittee must comply). The enclosed United States Fish and Wildlife Service (USFWS) BO dated August 31, 2023, contains mandatory

terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. The Permittee's authorization under this DA permit is conditional upon their compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO (or any future BO that supersedes it) which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of a listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with this DA permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO and the ESA.

25. **NMFS Section 7 Consultation Under the ESA:** This DA permit does not authorize the Permittee to take any marine or aquatic endangered species. In order to legally take a listed species, the Permittee must have separate authorization under the ESA (e.g., an ESA Section 10 permit, or a BO under ESA Section 7, with "incidental take" provisions with which the Permittee must comply. The enclosed National Marine Fisheries Service (NMFS) BO dated September 18, 2023, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. The Permittee's authorization under this DA permit is conditional upon their compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO (or any future BO that supersedes it) which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of a listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with this DA permit. The NMFS is the appropriate authority to determine compliance with the terms and conditions of its BO and the ESA.
26. The Permittee must provide the Corps with copies of all required documents related to threatened and endangered species conditions as detailed in the COP and in accordance with the USFWS and NMFS BOs for review and approval by the Corps as required. The plans should also be developed to incorporate measures related with work within nearshore and onshore portions of the project within the Corps' jurisdiction in addition to those activities occurring on the OCS. In addition to the special conditions related to threatened and endangered species required in accordance with the final approved COP and associated plans, you must also abide by the additional special conditions outlined within this authorization.
27. In accordance with the May 4, 2023 proposed rule entitled Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Coastal Virginia Offshore Wind Commercial Project Offshore of Virginia, 88 FR 28656, you will develop and provide copies to our office of a Construction Mitigation and Monitoring Plan (CMMP), comprised of a vessel strike avoidance plan (VASP), Environmental Training, pile driving mitigation and monitoring plan, passive acoustic monitoring plan (PAM), and sound field verification plans (SFV), for review and approval before construction commences. Construction activities must be conducted

in accordance with these Plans as a special condition to this permit. Any modifications to these plans must be coordinated with the Corps for approval prior initiating those activities.

28. Beginning on April 1, 2024, you must follow a time-of-year restriction prohibiting the cutting of trees favorable for bat maternity roosting locations from April 15 to July 30 within all jurisdictional habitats, and from December 15 to February 15 within forested wetlands only, of each year for the protection of the Northern long-eared bat (NLEB) and tri-colored bat (TCB), which are listed and proposed endangered species under the Endangered Species Act of 1973.
29. Bird-Deterrent Devices and Plan: To minimize attracting birds to operating WTGs, the Permittee must install bird perching-deterrent device(s) where such devices can be safely deployed on each WTG and OSS. The Permittee must submit a plan to deter perching on offshore infrastructure by listed bird species for BOEM and the Bureau of Safety and Environmental Enforcement (BSEE) approval. BOEM, BSEE, and USFWS will review the Bird Perching Deterrent Plan and provide any comments on the plan to the Permittee within 60 days of its submittal. The Permittee must resolve all comments on the Bird Perching Deterrent Plan to BOEM's and BSEE's satisfaction before the Permittee may begin installation of WTGs or OSSs. The Bird Perching Deterrent Plan must include the type(s) and locations of bird perching-deterrent devices and a monitoring plan for the life of the Project, allow for modifications and updates as new information and technology becomes available, and track the efficacy of the deterrents. The plan must be based on the best available science regarding the effectiveness of perching-deterrent devices in minimizing collision risk. The location of bird perching-deterrent devices must be proposed by the Permittee based on best management practices applicable to the appropriate operation and safe installation of the devices. The Permittee must submit the Bird Perching Deterrent Plan with the FDR. The Permittee must also provide the location and type of bird-deterrent devices as part of the as-built submittals to BSEE.
30. Onshore Avian Interaction Reduction: You must incorporate Avian Power Line Interaction Committee (2012) best practices during the construction and operation of the project to reduce potential impacts of the Overhead lines with avian species.
31. Navigation Lighting Upward Illumination Minimization: Conditional on United States Coast Guard (USCG) approval, the top of each USCG-required marine navigation light must be shielded to minimize upward illumination to minimize the potential of attracting migratory birds. The Permittee must provide BOEM, BSEE, the Corps, and USFWS with a copy of the application to USCG to establish PATON.
32. Onshore Construction Lighting: You shall implement lighting-reduction measures, such as downward projecting lights, lights triggered by motion sensors, and limit artificial light to the extent practicable, to avoid disruption to bat species.

33. Onshore Noise Mitigation Measures: You shall comply with relevant City of Virginia Beach and City of Chesapeake noise requirements during operations. If the final design engineering requires sound mitigation measures, they will be implemented within the project footprint as necessary.
34. Avian and Bat Monitoring Program: The Permittee must develop and implement an Avian and Bat Post-Construction Monitoring Plan (Plan), in coordination with USFWS. Prior to or concurrent with construction activities, including onshore preparation activities within Corps jurisdictional areas, the Permittee must submit an Avian and Bat Post-Construction Monitoring Plan for BOEM, BSEE, and the Corps' review. BOEM, BSEE, the Corps, and USFWS will review the Avian and Bat Post-Construction Monitoring Plan and provide any comments on the plan to the Permittee within 45 days of its submittal. The Permittee must resolve all comments on the Avian and Bat Post-Construction Monitoring Plan to BOEM, BSEE, and the Corps' satisfaction before implementing the plan and before commissioning the first WTG.
- a. Monitoring. The Permittee must conduct monitoring, as outlined in the Avian and Bat Post-Construction Monitoring Plan, which will include the use of radio tags to monitor the movement of ESA-listed birds and bat species in the vicinity of the Project. The plan will include an initial monitoring phase involving the deployment of Motus Wildlife Tracking System (Motus) radio tags on piping plovers and red knots in conjunction with the installation and operation of Motus receiving stations in the Lease Area following offshore Motus recommendations. Survey protocols will follow the Service's current Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines and given the year-round activity of the bat population in Virginia Beach, VA, could be conducted in any season in suitable habitat within the project area. The timing and target areas of surveys will be coordinated and approved by USFWS. The Plan will allow for changing methods over time to update methodology and study design based on results from previous years and any changes in technology. The initial phase may also include the deployment of satellite-based tracking technologies (e.g., GPS or Argos tags) (see USFWS BO Monitoring 1.A., p. 11-12 for further details).
 - b. Annual Monitoring Reports: The Permittee must submit to BOEM, USFWS, the Corps, and BSEE a comprehensive report after each full year of monitoring (pre- and post-construction) within 6 months of completion of the survey season. The report must include all data, analyses, and summaries regarding ESA-listed and non-ESA-listed birds and bats.
 - c. Post-Construction Quarterly Progress Reports: During the first twelve months that the Project is fully operational and commissioned (all installed WTGs producing power), the Permittee must submit quarterly progress reports concerning the implementation of the Avian and Bat Post-Construction Monitoring Plan to BOEM, BSEE, the Corps, and USFWS by the 15th day of the first month following the end of each quarter. The Permittee must include a summary of all work performed, an explanation of overall progress, and any technical problems encountered in the progress reports.

- d. **Monitoring Plan Revisions:** Within 30 days of submitting the annual monitoring report, the Permittee must meet with BOEM, BSEE, the Corps, and USFWS to discuss the monitoring results, the potential need for revisions to the Avian and Bat Post-Construction Monitoring Plan, including technical refinements or additional monitoring, and the potential need for any additional efforts to reduce impacts. If, following that meeting, BOEM, BSEE, the Corps, and USFWS jointly determine that revisions to the Avian and Bat Post-Construction Monitoring Plan are necessary, the Permittee must modify the Avian and Bat Post-Construction Monitoring Plan. If the reported monitoring results deviate substantially from the impact analysis included in the FEIS, the Permittee must transmit to BOEM, BSEE, the Corps, and USFWS recommendations for new mitigation measures and/or monitoring methods. In consultation with USFWS, BOEM, the Corps, and BSEE may adjust the frequency, duration, and methods for various monitoring efforts in future revisions of the Avian and Bat Post-Construction Monitoring Plan based on current technology (including its cost), the evolving weight of evidence regarding the likely levels of collision mortality for each listed bird species.
- e. **Operational Reporting:** Upon commissioning of the first WTG, the Permittee must submit to BOEM, the Corps, and BSEE an annual report, due by January 31, summarizing monthly operational data from the preceding year calculated from 10-minute supervisory control and data acquisition (SCADA) data for all WTGs together in tabular format, including the proportion of time the WTGs were spinning each month, the average rotor speed (monthly revolutions per minute) of spinning WTGs plus 1 standard deviation, and the average pitch angle of blades (degrees relative to rotor plane) plus 1 standard deviation. Any data considered by the Permittee to be privileged or confidential must be clearly marked as confidential business information and will be handled by BOEM, the Corps, and BSEE in a manner consistent with 30 C.F.R. § 585.114.

35. **Raw Data:** The Permittee must store the raw data from all avian and bat surveys and monitoring activities using accepted archiving practices. Such data must be accessible to BOEM, BSEE, the Corps, and USFWS upon request for the duration of the Lease. The Permittee must work with BOEM to ensure the data are publicly available. All avian tracking data (i.e., from radio and satellite transmitters) must be stored, managed, and made available to BOEM, the Corps, and USFWS following the protocols and procedures outlined in the agency document entitled Guidance for Coordination of Data from Avian Tracking Studies.

36. **Annual Bird/Bat Mortality Reporting:** The Permittee must submit an annual report to BOEM, BSEE, the Corps, and USFWS covering each calendar year, due by January 31, documenting any dead or injured birds or bats found on vessels and structures during construction, operations, and decommissioning in the preceding year. The report must contain the following information: the name of the species, date found, location, a photo to confirm species identity (if possible), and any other relevant information. Carcasses with Federal or research bands must be reported to the United States Geological Survey Bird Band Laboratory. The Permittee must also submit to BOEM, BSEE, the Corps, and USFWS an annual report covering each

calendar year, due by January 31, documenting the implementation of any collision measures during the preceding year.

37. Immediate Reporting: Any occurrence of dead or injured ESA-listed birds or bats must be reported to BOEM, BSEE, the Corps, and USFWS as soon as practicable (taking into account crew and vessel safety), ideally within 24 hours and no more than 3 days after the sighting. If practicable, the Permittee must carefully collect the dead specimen and preserve the material in the best possible state, contingent on the acquisition of the necessary wildlife permits and compliance with the Permittee's health and safety standards (see Monitoring Requirements in USFWS BO).
38. Collision Minimization: Within 5 years of the commissioning of the first WTG and every 5 years thereafter for the operational life of the Project, the Permittee must provide BOEM and the Corps with a review of best available scientific and commercial data on technologies and methods that have been implemented or are being studied to reduce or minimize bird collisions at WTGs. The review must be worldwide and include both offshore and onshore WTGs. This review will inform BOEM's Collision Minimization Report, consistent with Monitoring and Reporting Requirement 2 of the USFWS BO. Within 60 days of BOEM's issuance of the final Collision Minimization Report, the Permittee must participate in a meeting to discuss the report with BOEM, BSEE, the Corps, and USFWS.
39. Compensatory Mitigation for Piping Plover, Red Knot, and Roseate Tern: At least 180 days prior to the commissioning of the first WTG, the Permittee must distribute a Compensatory Mitigation Plan to BOEM, BSEE, the Corps, and the USFWS for review and comment. BOEM, BSEE, the Corps, and USFWS will review the Compensatory Mitigation Plan and provide any comments on the plan to the Permittee within 60 days of its submittal. The Permittee must resolve all comments on the Compensatory Mitigation Plan to BOEM, the Corps, and BSEE's satisfaction before implementing the plan and before commissioning of the first WTG. The Compensatory Mitigation Plan must provide compensatory mitigation actions to offset take of Piping Plover and Red Knot by the fifth year of WTG operation. The Compensatory Mitigation Plan must include:
 - a. A detailed description of the mitigation actions;
 - b. The specific location for each mitigation action;
 - c. A timeline for completion of the mitigation actions;
 - d. Itemized costs for implementing the mitigation actions;
 - e. Details of the mitigation mechanisms (e.g., mitigation agreement, applicant-proposed mitigation);
 - f. A minimum 1:1 mitigation compensation ratio to offset take; and
 - g. Monitoring to ensure the effectiveness of the mitigation actions in offsetting take.
40. The Permittee must provide annual training to all individuals directly or indirectly responsible for implementing and/or overseeing the Permittee's activities described in the USFWS BO. The training must review the protection measures outlined in the USFWS Biological Assessment (BA) and how the conservation measures are to be

implemented, species habitat characteristics, and applicable locations for Northern long-eared bat and tri-colored bat.

41. The Permittee must notify USFWS of the projected and actual start dates, progress, and completion of the Project. The Permittee must verify that it did not exceed the removal of 117.04 acres of trees contemplated in the USFWS BO and must confirm that it followed all conservation measures described in the USFWS BO. The Permittee must provide a report containing this information by December 31 of each year to BOEM, BSEE, the Corps, and USFWS until the year in which construction is complete.
42. Benthic Habitat Monitoring Plan: The Permittee must develop and submit to BOEM, the Corps, and BSEE a Benthic Habitat Monitoring Plan (BHMP) within 120 days of COP approval for a 60-day review. The Permittee must resolve all comments on the BHMP to BOEM, the Corps, and BSEE's satisfaction prior to implementation of the revised BHMP. Specifically, the BHMP should describe how the recovery of complex habitat (gravely sand) identified between KP 8 and KP 22 in the OECC will be monitored. The Permittee must share data consistent with its data sharing plan and upon BOEM, the Corps, or BSEE's request.
43. Fisheries Research and Monitoring Plan: The Permittee must conduct fisheries monitoring consistent with the Fisheries Mitigation and Monitoring Plan (FMMP) to assess fisheries status in the Project area pre- and post- construction. The Permittee must resolve all comments on the FMMP to BOEM, the Corps, and BSEE's satisfaction prior to implementation of the revised FMMP. The Permittee must submit an annual report to BOEM, BSEE, the Corps, and NMFS Greater Atlantic Regional Fisheries Office's (GARFO) Protected Resources Division (PRD) (nmfs.gar.incidental-take@noaa.gov) within 90 days of the completion of each year of sampling. The Permittee must share data consistent with its data sharing plan and upon BOEM, the Corps, or BSEE's request. All resulting data and metadata must be provided to GARFO.
44. The Permittee must submit all required documents related to protected species conditions (e.g., passive acoustic monitoring (PAM), pile-driving monitoring plans, Sound Field Verification (SFV), and vessel strike) for review and approval before construction commences to BOEM, BSEE via TIMSWeb with a notification email sent to BSEE at protectedspecies@bsee.gov, the Corps, and NMFS GARFO PRD. Construction activities must be conducted in accordance with these Plans as a special condition to this permit.
45. Pile Driving PAM Plan: The Permittee must submit a Pile-Driving PAM Plan to BOEM, BSEE, the Corps, and NMFS GARFO PRD at least 180 days before pile driving is planned. BOEM, BSEE, the Corps, and NMFS GARFO PRD will review the plan and will provide comments within 45 days of receipt of the plan. The Permittee must resolve all comments on the plan to BOEM, the Corps, and BSEE's satisfaction before starting any pile driving. NMFS GARFO PRD may comment to BOEM, the

Corps, BSEE, and the Permittee about whether the plan is consistent with the requirements outlined in the NMFS BO and its Incidental Take Statement (ITS). If BOEM determines that the plan is inconsistent with those requirements, the Permittee must resubmit a modified plan that addresses the identified issues at least 15 days before the start of the associated activity; at that time, BOEM, BSEE, the Corps, and NMFS will discuss a timeline for review and approval of the modified plan. BOEM will notify the Permittee of this timeline.

46. The Plan must include a description of all proposed PAM equipment and hardware, the calibration data, bandwidth capability and sensitivity of hydrophones, and information addressing how the proposed passive acoustic monitoring will follow standardized measurement, processing methods, reporting metrics, and metadata standards for offshore wind. The Plan must describe and include all procedures, documentation, and protocols, including information (i.e., testing, reports, equipment specifications) to support that it will be able to detect vocalizing whales within the clearance and shutdown zones, including deployment locations, procedures, detection review methodology, and protocols; detection ranges with and without foundation installation activities and data supporting those ranges; communication time between call and detection, and data transmission rates between PAM Operator and PSOs on the pile-driving vessel; where PAM Operators will be stationed relative to hydrophones and PSOs on pile-driving vessel calling for delay/shutdowns; and a full description of all proposed software, call detectors, and filters. The plan must describe all proposed PAM equipment, procedures, and protocols, including information to support that it will be able to detect vocalizing North Atlantic right whales (NARW) within the clearance and shutdown zones, and an evaluation of consistency with the NMFS BO. The plan must also incorporate the following requirements: If a NARW is detected via real-time PAM, data must be submitted by the Permittee to NMFS at nmfs.nec.pacmdata@noaa.gov using the NMFS Passive Acoustic Reporting System Metadata and Detection data spreadsheets (<https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-templates>) as soon as feasible, but no longer than 24 hours after the detection. The Permittee must submit the completed data templates to NMFS at nmfs.nec.pacmdata@noaa.gov. The Permittee must also submit, as provided on the website below, the full acoustic species Detection data, Metadata, and GPS data records, from real-time data, within 90 days via the ISO standard metadata forms available on the NMFS Passive Acoustic Reporting System website (<https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reporting-system-templates>). The Permittee must submit the completed data templates to NMFS at Nmfs.nec.pacmdata@noaa.gov. The Permittee must also send the full acoustic recordings from real-time systems to National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI) for archiving, using the email or other contact information on the website above or using any updated instructions for submission provided by NOAA, within 90 days after pile-driving has ended and instruments have been pulled from the water.

47. Long-term Passive Acoustic Monitoring: The Permittee must conduct long-term monitoring of ambient noise and baleen whale and commercially important fish vocalizations in the Lease Area before, during, and following construction. The Permittee must conduct continuous recording at least 1 year before construction, during construction, and, as set forth more fully below, for at least 3 but no more than 10 full calendar years of operation to monitor for potential noise impacts. The Permittee must meet with BOEM, the Corps, and BSEE at least 60 days prior to the conclusion of the third full calendar year of operation monitoring (and at least 60 days prior to the conclusion of each subsequent year until monitoring is concluded) to discuss:
- a. Monitoring conducted to-date,
 - b. The need for continued monitoring, and
 - c. If monitoring is continued, whether adjustments to the monitoring are warranted. Following this meeting, BOEM will determine continued monitoring requirements, if any, and inform the Permittee of any changes to monitoring requirements. The monitoring devices(s) must be configured to ensure that the specific locations of vocalizing NARW anywhere within the Lease Area can be identified, assuming of a 10 km detection range for their calls. The Permittee may satisfy this condition through either of the options set forth more fully below:

Option 1 - Permittee Conducts Long-term Passive Acoustic Monitoring. If the Permittee chooses to comply with Section 5.6.3 of the COP approval using this option, it must conduct PAM, including data processing and archiving, following the Regional Wildlife Science Collaborative (RWSC) best practices to ensure data comparability and transparency. PAM instrumentation must be deployed to allow for the identification of any NARW that vocalizes anywhere within the Lease Area.

- 1) The sampling rate (minimum 10 kHz) of the recorders must prioritize baleen whale detections but must also have a minimum capability to record noise from vessels, pile-driving, and WTG operation in the Lease Area. The system must be configured for continuous recording over the entire year. If temporal gaps in recording are expected, the Permittee must ensure that additional recorders can be deployed to fill gaps. The Permittee must use trawl-resistant moorings to ensure that instruments are not lost and must replace any lost instruments as soon as possible. The Permittee must also notify BOEM if instrument loss occurs.
- 2) The Permittee must follow the best practices applicable to monitoring outlined in the RWSC best practices document unless otherwise required through conditions of COP approval. The best practices include engaging with the RWSC, calibrating the instruments, running QA/QC on the raw data, following the templates for reporting species vocalizations, and preparing the data for archiving at the National Centers for Ecological Information (NCEI). Section III of the RWSC best practices document specifies steps for Section 106 compliance, the Permittee must instead follow the conditions outlined in Section 7.9 of the COP approval and the Section 106 Memorandum of Agreement.

- 3) With respect to data processing, the Permittee must document the occurrence of whale vocalizations (calls of North Atlantic right, humpback, sei, fin, and minke whales, as well as odontocete clicks, as available based on sample rate) using automatic or manual detection methods. The Permittee must submit a log of these detections as well as the detection methodology to BOEM (at renewable_reporting@boem.gov), BSEE (at protectedspecies@bsee.gov), and NMFS (at nmfs.nec.pacmdata@noaa.gov) within 120 days following each recorder retrieval. All raw data must be sent to the NCEI Passive Acoustic Data archive on an annual basis and the Permittee must contact NCEI for guidance for packaging the data and pay the fee.
- 4) Long-term Passive Acoustic Monitoring Plan: The Permittee must prepare and implement a Long-term PAM Plan under this option. No later than 90 days prior to instrument deployment and before any construction begins, the Permittee must submit to BOEM, the Corps, and BSEE (renewable_reporting@boem.gov and OSWsubmittals@bsee.gov) the Long-term PAM Plan that describes all proposed equipment (including number and configuration of instruments), deployment locations, mooring design, detection review methodology, and other procedures and protocols related to the required use of PAM. As the Permittee prepares the Long-term PAM Plan, it must coordinate with the RWSC. BOEM, the Corps, and BSEE will review the Long-term PAM Plan and provide comments, if any, on the plan within 45 days of its submittal. BOEM and/or BSEE may require the Permittee to submit a modified Long-term PAM Plan based on feedback from the agencies. The Permittee must address all outstanding comments to BOEM, the Corps, and BSEE's satisfaction and must receive written concurrence from BOEM and/or BSEE. If BOEM, the Corps or BSEE do not provide comments on the Long-term PAM Plan within 45 days of its submittal, the Permittee may conclusively presume BOEM, the Corps, and BSEE's concurrence with the Long-term PAM Plan.

Option 2 – Financial and Other Contributions to BOEM's Environmental Studies Program: As an alternative to conducting long-term PAM in the Lease Area, the Permittee may opt to make a financial contribution to BOEM's Environmental Studies Partnership for an Offshore Wind Energy Regional Observation Network (POWERON) initiative on an annual basis and cooperate with the POWERON team to allow the team's access to the Lease Area for deployment, regular servicing, and retrieval of instruments. The Permittee's financial contribution must provide for all activities necessary to conduct PAM within and adjacent to the Lease Area, such as vessel and staff time for regular servicing of instruments, QA/QC on data, data processing to obtain vocalizations of sound-producing species and ambient noise metrics, as well as long-term archiving of data at NCEI. At the Permittee's request, the BOEM will provide an estimate of the necessary amount of the financial contribution. BOEM will also invite the Permittee to contribute to discussions about the scientific approach of the POWERON initiative via the RWSC. The Permittee may request temporary

withholding of the public release (i.e., the placement into the NCEI public data archive) of raw acoustic data collected within the Lease Area for up to 180 days after collection of that data. During this temporary hold, BOEM may elect to provide the Permittee with a copy of the raw PAM data collected under this option after the DON has cleared the data for national security concerns.

48. Marine Mammal and Sea Turtle Monitoring Plan for Pile Driving: The Permittee must submit a Marine Mammal and Sea Turtle Monitoring Plan for Pile Driving to BOEM, BSEE, the Corps, and NMFS Office of Protected Resources (OPR) and NMFS GARFO PRD at least 180 days before foundation impact or vibratory pile driving is planned. BOEM, BSEE, the Corps, and NMFS OPR and NMFS GARFO PRD will review the plan and provide comments within 45 days of receipt of the plan. NMFS's comments to BOEM, BSEE, the Corps, and the Permittee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/Letter of Authorization (LOA), BO, and ITS. If the plan is inconsistent with these requirements, the Permittee must resubmit a modified plan that addresses the identified issues at least 15 days before the start of the associated activity. At that time, BOEM, BSEE, the Corps, and NMFS will discuss a timeline for review and approval of the modified plan and BOEM will notify the Permittee of this timeline. Under the terms of the NMFS BO, the Permittee must obtain BOEM, the Corps, and BSEE concurrence in coordination with NMFS on this plan before starting any pile driving. The plan must include a description of all monitoring equipment and PSO protocols (including the number and location of PSOs) for all pile driving. The plan must detail all plans and procedures for sound attenuation, as well as for monitoring ESA-listed whales and sea turtles, during all impact and vibratory pile driving. The plan must describe how the Permittee will determine the number of whales exposed to noise above the Level B harassment threshold during pile driving with the vibratory hammer to install cofferdams. The plan must also describe how the Permittee would determine the number of sea turtles exposed to noise above the 175 dB harassment threshold.
49. Pile Driving Reduced Visibility Monitoring Plan (RVMP): The Permittee must submit the Reduced Visibility Monitoring Plan (also known as the Alternative Monitoring Plan) to BOEM, BSEE, the Corps, NMFS OPR, and NMFS GARFO PRD at least 90 days before pile driving is planned to begin. BOEM, BSEE, Corps, and NMFS will review the Reduced Visibility Monitoring Plan and provide comments within 45 days of receipt of the plan. Under the terms of the NMFS BO, the Permittee must obtain BOEM, the Corps, and BSEE concurrence with this plan prior to the start of pile driving. The RVMP must describe how the Permittee will monitor pile-driving activities during reduced visibility conditions (e.g., rain, fog) and at night (i.e., between 1.5 hours prior to civil sunset and 1 hour after civil sunrise), including proof of the efficacy of monitoring devices (e.g., mounted thermal/infrared (IR) camera systems, hand-held or wearable night vision devices (NVD), spotlights) in detecting ESA-listed marine mammals and sea turtles over the full extent of the required clearance and shutdown zones, including a demonstration that the full extent of the minimum visibility zones (2,000 m for WTG and OSS foundations, 1,000 m for goal

posts) can be effectively and reliably monitored. The Permittee must use only those devices and methods that have been demonstrated as being capable of detecting marine mammals and sea turtles to the maximum extent of the clearance and shutdown zones.

50. Sound Field Verification (SFV) Plan: The Permittee must submit the SFV Plan to BOEM, BSEE, the Corps, NMFS OPR, and NMFS GARFO PRD at least 180 days before foundation impact or vibratory pile driving is planned to begin. BOEM, BSEE, the Corps, and NMFS will review the plan and will provide comments within 45 days of receipt of the plan. NMFS's comments to BOEM, BSEE, the Corps, and the Permittee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/LOA and BO. If BOEM and/or BSEE determine the plan to be inconsistent with these requirements, the Permittee must resubmit a modified plan that addresses the identified issues at least 15 days before the start of the associated activity; at that time, BOEM, BSEE, the Corps, and NMFS will discuss a timeline for review and approval of the modified plan. BOEM will notify the Permittee of this timeline. Under the terms of the NMFS BO, the Permittee must obtain BOEM, the Corps, and BSEE concurrence with this plan prior to the start of pile driving. The plan must describe how the Permittee will ensure that the first three monopile installation sites and installation scenarios (i.e., hammer energy, number of strikes) are representative of the rest of the monopile installations. If the monitored pile locations are different from those used for exposure modeling, the Permittee must provide justification for why such locations are representative of the modeling. In the case that these sites are not determined to be representative of all other monopile installation sites, the Permittee must include information on how additional sites will be selected for SFV. The plan must also include the piling schedule and sequence of events, communication and reporting protocols, and methodology for collecting, analyzing, and preparing SFV data for submission to NMFS, including instrument deployment, locations of all hydrophones (including direction and distance from the pile) hydrophone sensitivity, recorder/measurement layout, and analysis methods, and a template of the interim report to be submitted. The plan must describe how the effectiveness of the sound attenuation methodology would be evaluated based on the results. The Plan must address how CVOW will implement NMFS LOA and BO Terms and Condition 2a, which includes, but is not limited to, identifying additional noise attenuation measures (e.g., add noise attenuation device, adjust hammer operations, adjust NMS) that will be applied to reduce sound levels if measured distances are greater than those modeled.
51. Vessel Strike Avoidance Plan: The Permittee must submit the Vessel Strike Avoidance Plan for protected species to BOEM, BSEE, the Corps, NMFS OPR, and NMFS GARFO PRD at least 180 days prior to the commencement of vessel use, with the exception of vessels deployed for the fisheries surveys. BOEM, BSEE, the Corps, and NMFS will review the plan and provide comments within 45 days of receipt of the plan. NMFS's comments to BOEM, BSEE, the Corps, and the Permittee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/LOA and the NMFS BO (including Appendix A

of the NMFS BO). If the plan is inconsistent with these requirements, the Permittee must resubmit a modified plan that addresses the identified issues at least 15 days before the start of the associated activity. At that time, BOEM, BSEE, the Corps, and NMFS will discuss a timeline for review and approval of the modified plan, and BOEM will notify the Permittee of this timeline. The plan must provide details on all relevant mitigation and monitoring measures for protected species, minimum separation distances, vessel transit protocols from all planned ports, vessel speeds, vessel strike avoidance protocols, vessel-based observer protocols on transiting vessels, communication and reporting plans, and alternative monitoring and equipment that will be used to maintain effective visual monitoring of vessel strike avoidance zones in varying weather conditions, darkness, sea states, and in consideration of the use of artificial lighting. If the Permittee plans to implement the Alternative Plan for vessel strike avoidance in transit lane(s) the plan must describe how PAM, in combination with visual observations, will be conducted to ensure the transit corridor is clear of NARWs. Consistent with the requirements of the Marine Mammal Protection Act (MMPA) Incidental Take Authorization (ITA) and the NMFS BO, unless and until the Plan is approved by NMFS OPR and NMFS GARFO PRD, all vessels transiting between the operations and maintenance facility and the Lease Area must comply with any applicable speed restrictions.

52. General Conditions for All Fisheries Monitoring Surveys: The Permittee must submit all required documents related to endangered and threatened species conditions for fishery monitoring (e.g., marine debris, visual and Protected Species Observers (PSOs), take, and annual reporting) to BOEM, the Corps, BSEE, with a notification email sent to protectedspecies@bsee.gov or marinedebris@bsee.gov (if related to marine debris/lost gear), and NMFS GARFO PRD.
53. The Permittee must ensure that any lost survey gear is reported and recovered according to the Marine Debris Elimination and Reporting conditions. All lost gear must also be reported to NMFS GARFO PRD and BSEE within 24 hours of the documented time when gear is discovered to be missing or lost. This report must include information on any markings on the gear and any efforts undertaken or planned to recover the gear.
- a. Marine mammal monitoring must occur prior to, during, and after haul-back of gear used for fisheries monitoring surveys. If a marine mammal is determined to be at risk of interaction with the deployed gear, all gear must be immediately removed.
 - b. If marine mammals are sighted in the area within 15 minutes before deploying gear and are at risk of interaction with the research gear, then the sampling station must be either moved or canceled, or the activity must be suspended, until there are no marine mammal sightings within 1 nautical mile (1,852 meters) of sampling location for 15 minutes.
 - c. The Permittee must ensure all vessels deploying fixed gear (e.g., pots/traps) have adequate disentanglement equipment (i.e., knife and boathook) onboard. Any disentanglement must occur consistent with the Northeast Atlantic Coast

Sea Turtle Disentanglement Network Guidelines and the procedures described in “Careful Release Protocols for Sea Turtle Release with Minimal Injury.”

54. The Permittee must ensure that any sea turtles or Atlantic sturgeon caught and/or retrieved in any fisheries survey gear are identified to species or species group and reported to BOEM, the Corps, BSEE, and NMFS GARFO PRD. Each ESA-listed species caught and/or retrieved must then be properly documented using appropriate equipment and the NMFS data collection form. Biological data, samples, and tagging must occur as outlined below:
- a. The Permittee must follow the Sturgeon and Sea Turtle Take Standard Operating Procedures.
 - b. The Permittee must equip survey vessels with a passive integrated transponder (PIT) tag reader onboard capable of reading 134.2 kHz and 125 kHz encrypted tags (e.g., Biomark GPR Plus Handheld PIT Tag Reader), and this reader must be used to scan any captured sea turtles and sturgeon for tags. Any recorded tags must be recorded on the NMFS take report form and reported to BOEM, the Corps, BSEE, and NMFS GARFO PRD.
 - c. The Permittee must take genetic samples from all captured Atlantic sturgeon (alive or dead) to allow for identification of the distinct population segment (DPS) of origin of captured individuals and the tracking of the amount of incidental take. This sample collection must be done consistent with the Procedures for Obtaining Sturgeon Fin Clips.
 - d. The Permittee must send fin clips to a BOEM approved laboratory capable of performing genetic analysis and assignment to DPS of origin. The Permittee must submit the results of genetic analysis, including assigned DPS of origin, to BOEM, the Corps, BSEE, and NMFS GARFO PRD within six months of the sample collection.
 - e. The Permittee must hold and submit subsamples of all fin clips and accompanying metadata form to the Atlantic Coast Sturgeon Tissue Research Repository on a quarterly basis using the Sturgeon Genetic Sample Submission Form.
55. The Permittee must ensure all captured sea turtles and Atlantic sturgeon are documented with required measurements, photographs, body condition, and descriptions of any marks or injuries. This information must be entered as part of the record for each capture. The Permittee must complete an NMFS Take Report Form for each individual sturgeon and sea turtle and submitted to BOEM, the Corps, BSEE, and NMFS GARFO PRD.
56. The Permittee must ensure any live, uninjured animals are returned to the water as quickly as possible after completing the required handling and documentation. Live and responsive sea turtles or Atlantic sturgeon caught and retrieved in gear used in any fisheries survey should be released according to established protocols and whenever at-sea conditions are safe for those releasing the animal(s). Any unresponsive sea turtles or Atlantic sturgeon caught and retrieved in gear used in

fisheries surveys must be handled and resuscitated whenever at-sea conditions are safe for those handling and resuscitating the animal(s). Specifically:

- a. To the extent allowed by sea conditions, the Permittee must give priority to the handling and resuscitation of any sea turtles or sturgeon that are captured in the gear being used. Handling times for these species should be minimized (i.e., kept to 15 minutes or fewer) to limit the amount of stress placed on the animals.
- b. All survey vessels must be equipped with copies of the sea turtle handling and resuscitation requirements found at 50 C.F.R. § 223.206(d)(1) prior to the commencement of any on-water activity. These handling and resuscitation procedures (the latter, when necessary) must be executed any time a sea turtle is incidentally captured and brought onboard a survey vessel.
- c. For sea turtles that appear injured, sick, distressed, or dead (including stranded or entangled individuals), survey staff must immediately contact the Greater Atlantic Region Marine Animal Hotline at 866-755-6622 for further instructions and guidance on handling, retention, and/or disposal of the animal. If unable to contact the hotline (e.g., due to distance from shore or lack of ability to communicate via phone), the USCG should be contacted via VHF marine radio on Channel 16. If required, hard-shelled sea turtles (i.e., non-leatherbacks) may be held on board for up to 24 hours, if conditions during holding are authorized by the NMFS GARFO PRD and safe handling practices are followed. If the hotline or an available veterinarian cannot be contacted and the injured animal cannot be taken to a rehabilitation center, activities that could further stress the animal must be stopped. When sea-to-shore contact with the hotline or an available veterinarian is not possible, the animal must be allowed to recover and be responsive before safely releasing it to the sea.
- d. The Permittee must make attempts to resuscitate any Atlantic sturgeon that are unresponsive or comatose by providing a running source of water over the gills as described in the Sturgeon Resuscitation Guidelines.
- e. NMFS may authorize that dead sea turtles or Atlantic sturgeon be retained on board the survey vessel, provided that appropriate cold storage facilities are available on the survey vessel. Sea turtle and sturgeon carcasses should be held in cold storage (frozen is preferred, although refrigerated is permitted if a freezer is not available) until retention or disposal procedures are authorized by the NMFS GARFO PRD for transfer to an appropriately permitted partner or facility on shore.

57. The Permittee must provide notification via email to BOEM, the Corps, BSEE, and NMFS GARFO PRD within 24 hours of any interaction with a sea turtle or sturgeon and include the NMFS take reporting form. The report must include at a minimum, the following: (1) survey name and applicable information (e.g., vessel name, station number); (2) Global Positioning System (GPS) coordinates describing the location of the interaction (in decimal degrees); (3) gear type involved (e.g., bottom trawl, gillnet, longline); (4) soak time, gear configuration and any other pertinent gear information; (5) time and date of the interaction; (6) identification of the animal to the species level (if possible); and (7) a photograph or video of the animal (multiple photographs are suggested, including at least one photograph of the head scutes). If

reporting within 24 hours is not possible (e.g., due to distance from shore or lack of ability to communicate via phone, fax, or email), the Permittee must submit reports as soon as possible and must submit late reports with an explanation for the delay.

58. The Permittee must submit an annual report within 90 days of the completion of each survey season to BOEM, the Corps, BSEE, and NMFS GARFO PRD. The report must include all information on any observations of and interactions with ESA-listed species and contain information on all survey activities that took place during the season, including location of gear set, duration of soak, and total effort. The report on survey activities must be comprehensive of all activities, regardless of whether ESA-listed species were observed.
59. Protected Species Training and Coordination: Before beginning any in-water activities involving vessel use, pile driving, and HRG surveys, and when new personnel join the work, the Permittee must conduct briefings for construction supervisors and crews, PSO and PAM teams, vessel operators, and all staff prior to the start of all pile-driving and HRG survey activity, in order to explain responsibilities, communication procedures, and protected species mitigation, monitoring, and reporting requirements.
 - a. The Permittee must submit all required documents and reports related to protected species training and coordination conditions to BOEM, the Corps, BSEE with a notification email sent to protectedspecies@bsee.gov, NMFS OPR, and NMFS GARFO PRD.
 - b. Vessel Crew and Protected Species Observer (PSO) Training Requirements: The Permittee must provide Project-specific training to all vessel crew members, PSOs, and Trained Lookouts on the identification of sea turtles and marine mammals, vessel strike avoidance and reporting protocols, how and when to communicate with the vessel operator, the authority of the PSOs, and the associated regulations for avoiding vessel collisions with protected species prior to the start of in-water construction activities. The Permittee must make available aboard all Project vessels reference materials for identifying sea turtles and marine mammals, and copies of the Marine Mammal and Sea Turtle Monitoring Plans and Vessel Strike Avoidance Plan. Confirmation of the training and understanding of the requirements must be documented on a training course log sheet, and the Permittee must provide the log sheets to BOEM, the Corps, and BSEE upon request. The Permittee must communicate to all crew members its expectation that the crew report sightings of sea turtles and marine mammals to the designated vessel contacts. The Permittee must communicate the process for reporting sea turtles and marine mammals (including live, entangled, and dead individuals) to the designated vessel contact and all crew members. The Permittee must post the reporting instructions, including communication channels, in highly visible locations aboard all Project vessels.
 - c. PSO Requirements: The Permittee must use independent, dedicated, qualified PSOs provided by a third party. The PSO's sole Project-related duty must be to observe, collect and report data, and communicate with and instruct relevant vessel crew regarding the presence of protected species and mitigation

requirements (including brief alerts regarding maritime hazards). PSOs or any PAM operators serving as PSOs must have completed a commercial PSO training program for the Atlantic with an overall examination score of 80 percent or greater. The Permittee must provide training certificates for individual PSOs to BOEM, the Corps, or BSEE upon request. PSOs and PAM operators must be approved by NMFS before the start of a survey. The Permittee must submit PSO and PAM resumes for NMFS's review and approval at least 60 days prior to the commencement of in-water construction activities requiring PSOs/PAM operators. Application requirements to become a NMFS-approved PSO for construction activities can be found on the NOAA website or for geological and geophysical surveys by sending an inquiry to nmfs.psoreview@noaa.gov.

- d. PSOs and PAM operators must be on watch for no more than a maximum of 4 consecutive hours, followed by a break of at least 2 hours between watches, for no more than a total of 12 hours within a 24-hour period.

60. Vessel Strike Avoidance Conditions: The Permittee must submit all required documents related to vessel strike avoidance conditions to BOEM, the Corps, BSEE with a notification email sent to protectedspecies@bsee.gov, NMFS OPR, and NMFS GARFO PRD.

- a. PSO Requirements: The Permittee must ensure that vessel operators and crew members maintain a vigilant watch for marine mammals and sea turtles, and reduce vessel speed, alter the vessel's course, or stop the vessel as necessary to avoid striking marine mammals or sea turtles.
 - 1) All vessels must have a visual observer on board who is responsible for monitoring the vessel strike avoidance zone for marine mammals and sea turtles. Visual observers may be PSOs or crew members, but crew members responsible for these duties must be provided sufficient training by the Permittee to distinguish marine mammals and sea turtles from other phenomena and must be able to identify a marine mammal as a NARW, other whale (defined in this context as sperm whales or baleen whales other than NARWs), or other marine mammal, as well as identify sea turtles. Crew members serving as visual observers must not have other duties while observing for marine mammals.
- b. Vessel Communication of Threatened and Endangered Species Sightings: The Permittee must ensure that whenever multiple Project vessels are operating, any detections of ESA-listed species (marine mammals and sea turtles) are communicated in near real time to these personnel on the other Project vessels: PSO, vessel operators, or both.
 - 1) Year-round, all vessel operators must monitor the Project's Situational Awareness System, WhaleAlert, USCG VHF Channel 16, and the Right Whale Sighting Advisory System (RWSAS) for the presence of NARWs once every 4-hour shift during Project-related activities. The PSO and PAM operator monitoring teams for all activities must also monitor these systems no less frequently than every 12 hours. If a vessel operator is alerted to a NARW detection within the Project area, the operator must immediately convey this information to the PSO and PAM teams.

- 2) Any observations of any large whale by any of the Permittee's staff or contractor, including vessel crew, must be communicated immediately to PSOs and all vessel operators to increase situational awareness.
- c. Vessel Speed Requirements: All vessels must comply with existing and applicable NMFS vessel speed regulations for NARWs and the vessel speed restrictions in the NMFS BO and the MMPA ITA. Within 30 days after issuance of the MMPA ITA, the Permittee must submit a summary of all vessel speed requirements applicable to Project activities for review and approval by BOEM, the Corps, and BSEE. BOEM, the Corps, and BSEE will review the summary, and provide comments, if any, to the Permittee within 60 days of their submittal to BOEM, the Corps, and BSEE. The Permittee must resolve all comments to BOEM, the Corps, and BSEE's satisfaction.
- d. Vessel Strike Avoidance of Sea Turtles:
 - 1) On all vessels operating north of the Virginia/North Carolina border between June 1 and November 30, the Permittee must post a trained lookout on all vessel transits during all phases of the Project to observe for sea turtles. The trained lookout must communicate any sightings, in real time, to the vessel operator so that the requirements below can be implemented.
 - 2) On all vessels operating south of the Virginia/North Carolina border, the Permittee must post a trained lookout on all vessel transits during all phases of the Project to observe for sea turtles. The trained lookout must communicate any sightings, in real time, to the vessel operator so that the requirements below can be implemented.
 - 3) If a vessel is carrying a PSO or trained lookout for the purposes of maintaining watch for NARWs, an additional lookout is not required and this PSO or trained lookout must also maintain watch for sea turtles.
 - 4) The trained lookout must monitor <https://seaturtlesightings.org/> prior to each trip and report any observations of sea turtles in the vicinity of the planned trip to all vessel operators and lookouts on duty that day.
 - 5) The trained lookout must maintain a vigilant watch and monitor a Vessel Strike Avoidance Zone (500 meters) at all times to maintain minimum separation distances from ESA-listed species. Alternative monitoring technology (e.g., night vision, thermal cameras, etc.) must be available to ensure effective watch at night and in any other low visibility conditions. If the trained lookout is a vessel crew member, monitoring must be their designated role and primary responsibility while the vessel is transiting. Any designated crew lookouts must receive training on protected species identification, vessel strike minimization procedures, how and when to communicate with the vessel operator, and reporting requirements.
 - 6) If a sea turtle is sighted within 100 meters or less of the operating vessel's forward path, the vessel operator must slow down to 4 knots (unless operationally unsafe) and then proceed away from the turtle at a speed of 4 knots or less until there is a separation distance of at least 100 meters, at which time the vessel may resume normal operations. If a sea turtle is sighted within 50 meters of the forward path of the operating vessel, the vessel operator must shift to neutral when operationally safe to do so and then

- proceed away from the turtle at a speed of 4 knots when the sea turtle is no longer in the forward path of the vessel. The vessel may resume normal operations once the sea turtle is no longer in the forward path of the vessel.
- 7) Vessel operators must avoid transiting through areas of visible jellyfish aggregations or floating sargassum lines or mats. If operational safety prevents avoidance of such areas, vessels must slow to 4 knots while transiting through such areas.
 - 8) All vessel crew members must be briefed in the identification of sea turtles and in regulations and best practices for avoiding vessel collisions. Reference materials must be available aboard all Project vessels for identification of sea turtles. The requirement and process for reporting of sea turtles (including live, entangled, and dead individuals) must be clearly communicated and posted in highly visible locations aboard all Project vessels, so that there is a clear requirement for reporting to the designated vessel contact (such as the lookout or the vessel operator) as well as a communication channel and process for crew members to do so.
 - 9) If the Permittee is unable to comply with these conditions above due to operational safety, the Permittee must report any such incident to the Corps, BSEE, and NMFS GARFO PRD within 24 hours.
 - 10) Vessel transits to and from the Wind Farm Area that require PSOs must maintain a speed commensurate with weather conditions and effectively detecting sea turtles prior to reaching the 100 meters separation distance mentioned above, at which point the vessel must reduce speed and avoid sea turtles.

61. WTG and OSS Foundation Installation Conditions: Monopiles must be no larger than 9.5 meters in diameter and Pin piles must be no larger than 2.8 meters in diameter. For all monopiles and pin piles, the Permittee must use the minimum amount of hammer energy necessary to effectively and safely install and maintain the integrity of the piles. Nominal hammer energies must not exceed 4,000 kilojoules for monopile installations and 3,000 kilojoules for pin pile installation.

- a. The Permittee must submit all required documents related to WTG and OSS foundation installation conditions to BOEM, the Corps, BSEE with a notification email sent to protectedspecies@bsee.gov, NMFS OPR, and NMFS GARFO PRD.
- b. Seasonal and Daily Restrictions: Foundation vibratory and pile-driving activities must not occur November 1 through April 30. No more than 2 monopile foundations or 2 pin piles for jacket foundations may be installed per day. The Permittee must not conduct pile-driving operations at any time when lighting or weather conditions (e.g., darkness, rain, fog, sea state) prevent visual monitoring of the full extent of the clearance and shutdown zones. The lead PSO must determine when sufficient light exists to allow effective visual monitoring in all cardinal directions. If light is insufficient, the lead PSO must call for a delay until the visual clearance zone is visible in all directions or must implement the Reduced Visibility Pile-Driving Monitoring Plan. Under the terms of the NMFS BO, Dominion Energy must not initiate pile driving earlier than 1 hour after civil

sunrise or later than 1.5 hours prior to civil sunset, unless Dominion Energy submits, and NMFS approves, a Reduced Visibility Monitoring Plan (per T&C 5.8.5) as part of the Pile-Driving and Marine Mammal Monitoring Plan that reliably demonstrates the efficacy of protected species detection.

- c. Noise Mitigation Systems (NMS): The Permittee must deploy dual noise abatement systems that are capable of achieving, at a minimum, 10 decibels (dB) of sound attenuation from modeled data, during all foundation impact and vibratory pile driving of monopiles and pin piles and must comply with the following requirements related to noise abatement:
- 1) A single bubble curtain must not be used unless paired with another noise attenuation device;
 - 2) A double big bubble curtain may be used without being paired with another noise attenuation device;
 - 3) The bubble curtain(s) must distribute air bubbles using an air flow rate of at least 0.5 m³/(min*m). The bubble curtain(s) must surround 100 percent of the piling perimeter throughout the full depth of the water column. In the event of a single compressor malfunction, the offshore personnel operating the bubble curtain(s) must make appropriate adjustments to the air supply and operating pressure such that the maximum possible sound attenuation performance of the bubble curtain(s) is achieved;
 - 4) The Permittee must ensure the lowest bubble ring must be in contact with the seafloor for the full circumference of the ring, and the weights attached to the bottom ring must ensure 100-percent seafloor contact;
 - 5) The Permittee must inspect and carry out, as needed, appropriate maintenance (e.g., ensure bubble curtain hose maintenance, check bubble curtain air pressure supply, add additional sound attenuation, manually clearing holes, etc.) on the Noise Attenuation System (NAS) prior to every pile-driving event and prepare and submit a NAS inspection/performance report. For piles for which full SFV is carried out, this report must be submitted as soon as it is available, but no later than when the interim SFV report is submitted for the respective pile. Performance reports for all subsequent piles must be submitted with the weekly pile-driving reports. All reports must be submitted to BOEM, the Corps, BSEE, and NMFS GARFO PRD.
 - 6) Performance reports for each bubble curtain deployed must include water depth, current speed and direction, wind speed and direction, bubble curtain deployment/retrieval date and time, bubble curtain hose length, bubble curtain radius (distance from pile), diameter of holes and hole spacing, air supply hose length, compressor type (including rated Cubic Feet per Minute (CFM) and model number), number of operational compressors, performance data from each compressor (including Revolutions Per Minute (RPM), pressure, start times, and stop times), free air delivery (m³/min), total hose air volume (m³/(min m)), schematic of GPS waypoints during hose laying, maintenance procedures performed (pressure tests, inspections, flushing, re-drilling, and any other hose or system maintenance) before and after installation and timing of those tests, and the length of time the bubble curtain was on the

seafloor prior to foundation installation. Additionally, the report must include any important observations regarding performance (before, during, and after pile installation), such as any observed weak areas of low pressure. The report may also include any relevant video and/or photographs of the bubble curtain(s) operating during all pile driving.

- d. Use of PSOs and PAM Operators: The Permittee must use PSOs and PAM operators before, during, and after all foundation installation activities. At minimum, four visual PSOs must be actively observing for marine mammals and sea turtles before, during, and after pile driving. At least two visual PSOs must be stationed on the pile-driving vessel and at least two visual PSOs must be stationed on a secondary, PSO-dedicated vessel. The dedicated PSO vessel must be positioned approximately 3 km from the pile being driven and circle the pile at a speed of less than 10 kts. Concurrently, at least one PAM operator must actively monitor for marine mammals before, during, and after pile driving. PSOs fulfilling the role of both the PAM operator and PSO may be utilized interchangeably, if all relevant experience and educational requirements are met; however, PAM operators/PSOs must only serve in one capacity per watch period. During all monopile installation and in the two days prior to and daily throughout the construction, the Lead PSO must continue to consult the NOAA Fisheries North Atlantic right whale reporting systems for the presence of North Atlantic right whales.
- e. Clearance and Shutdown Zones: The Permittee must use visual PSOs and PAM operators to monitor the area around each foundation pile before, during, and after pile driving. The clearance and shutdown zones are defined in Meters below for each species.

For Impact Pile Driving of Foundations:

- 1) NARW – visual detection: Minimum visibility zone plus any additional distance observable by the visual PSOs and Minimum visibility zone plus any additional distance observable by the visual PSOs
- 2) NARW – PAM: Any distance and Any distance
- 3) Fin, Sei, and Sperm Whale – WTG: 5,100 m (Distance for a one pile per day scenario. The two pile per day scenario is 6,500 m) and 1,750 m
- 4) Sea Turtles: 1,000 m and 500 m

For Vibratory Pile Driving of Foundations:

- 1) NARW- visual detection: Any distance and Any distance
- 2) Fin, Sei, and Sperm Whale: 1,000 m and 1,000 m
- 3) Sea Turtles: 1,000 m and 100 m

- f. Sound Field Verification for WTGs: The Permittee must conduct SFV according to the SFV Plan on at least the first three monopiles installed. If any of the SFV measurements from any of the piles indicate that the distance to any isopleth of concern is larger than those modeled assuming 10 dB attenuation, before the next pile is installed, the Permittee must:

- 1) Identify additional measures that are expected to reduce sound levels to the modeled distances (e.g., add noise attenuation device, adjust hammer operations, adjust noise mitigation systems (NMS)); provide an explanation to BOEM, the Corps, BSEE, NMFS GARFO PRD and NMFS OPR supporting that determination. BOEM and BSEE will coordinate with NMFS GARFO PRD and NMFS OPR. Following BOEM, the Corps, and BSEE's concurrence with the determination, the Permittee must deploy those additional measures on any subsequent piles that are installed (e.g., if threshold distances are exceeded on pile 1 then additional measures must be deployed before installing pile 2).
- 2) If any of the SFV measurements indicate that the distances to level A thresholds for ESA-listed whales or PTS peak or cumulative thresholds for sea turtles are larger than the modeled distances (assuming 10 dB attenuation), the clearance and shutdown zones for subsequent piles must be increased so that they are at least the size of the distances to those thresholds as indicated by SFV (e.g., if threshold distances are exceeded on pile 1 then the clearance and shutdown zones for pile 2 must be expanded). For every 1,500 m that a marine mammal clearance or shutdown zone is expanded, additional PSOs must be deployed from additional platforms to ensure adequate and complete monitoring of the expanded shutdown and/or clearance zone; the Permittee must submit a proposed monitoring plan describing the location of all PSOs for concurrence by NMFS. In the event that the clearance or shutdown zone for sea turtles needs to be expanded, the Permittee must submit a proposed monitoring plan for the expanded zones to BOEM, the Corps, and BSEE for concurrence in coordination with NMFS GARFO PRD.
- 3) If after implementation of the measures outlined above, results from any subsequent SFV measurements remain larger than those modeled assuming 10 dB attenuation, the Permittee must identify additional measures such as noise attenuation device(s) and/or modifications to the pile-driving operations (e.g., reduced hammer energy) that are expected to reduce noise and reduce the distance to thresholds of concern to no greater than the modeled distances (assuming 10 dB attenuation). The Permittee must provide an explanation to BOEM, the Corps, and BSEE in coordination with NMFS GARFO PRD and NMFS OPR supporting that determination and, following concurrence from BOEM, the Corps, and BSEE, deploy those additional noise attenuation measures and/or modifications to pile driving operations on any subsequent piles that are installed (e.g., if threshold distances are still exceeded on pile 2 the additional measures must be deployed for pile 3). If clearance and shutdown zones must be expanded, they must be consistent with the requirements of the section above.
- 4) If, following installation of the pile with additional noise mitigation measures required above, SFV results indicate that any isopleths of concern are still larger than those modeled assuming 10 dB attenuation, the Permittee, before any additional piles can be installed, must identify and propose for review and concurrence additional, modified, and/or alternative noise attenuation

- measures or operational changes that present a reasonable likelihood of reducing sound levels to the modeled distances (assuming 10 dB attenuation), and provide an explanation to NMFS OPR and NMFS GARFO PRD, BOEM, BSEE, and the Corps supporting that determination and requesting concurrence to proceed. Following concurrence from BOEM, the Corps, and BSEE in coordination with NMFS OPR and NMFS GARFO PRD, the Permittee must implement those measures and any expanded clearance and shutdown zone sizes (and any required additional PSOs) consistent with the requirements above. Additionally, the Permittee must continue SFV for two additional piles with the additional noise mitigation measures and submit the interim reports as required above (for a total of at least three piles with consistent additional noise attenuation measures).
- a) If no additional measures are identified for implementation, or if the SFV required above indicates that the distance to any isopleths of concern for any ESA listed species are still larger than those modeled assuming 10 dB attenuation, BOEM will discuss with other co-action agencies the results of SFV monitoring, the severity of exceedance of distances to identified isopleths of concern, the species affected, modeling assumptions, and whether additional action is required.
- 5) Following installation of the pile with additional noise attenuation measures required above, if SFV results indicate that all isopleths of concern are within distances to isopleths of concern modeled assuming 10 dB attenuation, the Permittee must conduct SFV on two additional piles (for a total of at least three piles with consistent additional noise attenuation measures). If the SFV results from each pile are within the distances to isopleths of concern modeled assuming 10 dB attenuation, then the Permittee must continue to implement the additional sound attenuation measures. The Permittee may request concurrence from BOEM and/or BSEE in coordination with NMFS OPR and NMFS GARFO PRD to revert to the original clearance and shutdown zones or continue with the expanded clearance and shutdown zones with additional PSOs.
- g. **Abbreviated SFV Monitoring:** The Permittee must conduct Abbreviated SFV monitoring for all foundation installations for which the thorough SFV monitoring outlined above is not carried out. To accomplish this, the Permittee must conduct this monitoring by placing a single acoustic recorder at an appropriate distance from the pile to record sounds during pile driving. The Permittee must submit the monitoring data and results of measured sound levels in the weekly PSO pile-driving reports. The Permittee must include in the report any indications that distances to the identified Level A and Level B harassment thresholds for whales or distances to injury or behavioral disturbance distances for sea turtles were exceeded. The monitoring data collected will not be used to determine or document compliance with distances but rather will to be used by the Permittee and federal agencies to identify if harassment threshold distances or injury or behavioral disturbance distances were exceeded. If a harassment threshold distance has been exceeded, the Permittee must address the cause of the exceedance, including an explanation of factors that contributed to the

exceedance and corrective actions that were taken, to avoid exceedance on subsequent piles. The Permittee must meet with BOEM, BSEE, and the Corps within two business days of submission of a report that includes an exceedance unless an alternative meeting date is agreed to by the parties.

- h. Sound Field Verification for OSSs: The Permittee must implement Sound Field Verification (SFV) on all piles associated with the installation of all three OSS foundations, for all four pin piles, and for vibratory pile driving. If any of the SFV measurements from the first OSS foundation installation indicate that the distance to any isopleth of concern is larger than those modeled assuming 10 dB attenuation, the Permittee must, before the second OSS foundation is installed:
 - 1) Identify measures that are expected to reduce sound levels to the modeled distances (e.g., adding a noise attenuation device, adjusting hammer operations, adjusting noise mitigation system (NMS)); provide an explanation to BOEM, the Corps, BSEE, NMFS GARFO PRD and NMFS OPR supporting that determination; and, following concurrence from BOEM in consultation with NMFS GARFO PRD, deploy those additional measures for the second OSS foundation.
 - 2) If any of the SFV measurements indicate that the distances to level A thresholds for ESA-listed whales or PTS peak or cumulative thresholds for sea turtles are larger than the modeled distances (assuming 10 dB attenuation), the clearance and shutdown zones for the second OSS foundation must be increased so that they are at least the size of the distances to those thresholds as indicated by SFV. For every 1,500 m that a marine mammal clearance or shutdown zone is expanded, additional PSOs must be deployed from additional platforms to ensure adequate and complete monitoring of the expanded shutdown and/or clearance zone; the Permittee must submit a proposed monitoring plan describing the location of all PSOs for concurrence by BOEM, the Corps, and BSEE in coordination with NMFS GARFO PRD and NMFS OPR. If the clearance or shutdown zone for sea turtles needs to be expanded, the Permittee must submit a proposed monitoring plan for the expanded zones for concurrence by BOEM, the Corps, and BSEE in coordination with NMFS GARFO.
 - 3) If, after implementation of the above measures, any subsequent SFV measurements for OSS foundation 2 are still larger than those modeled assuming 10 dB attenuation, the Permittee must identify and propose for review and concurrence an additional noise attenuation device or devices (e.g., additional bubble curtain) and/or modifications to pile-driving operations (e.g., reduced hammer energy) to reduce noise and reduce the distance to thresholds of concern to no greater than the modeled distances (assuming 10 dB attenuation). Additionally, the Permittee must provide an explanation to BOEM, the Corps, BSEE, NMFS GARFO PRD, and NMFS OPR supporting that determination and deploy those additional noise attenuation measures on any subsequent piles that are installed following concurrence from BOEM, the Corps, and/or BSEE in coordination with NMFS GARFO PRD and NMFS OPR (e.g., if threshold distances are still exceeded on OSS 2 the additional

measures must be deployed for OSS 3). Clearance and shutdown zones must be expanded consistent with the requirements above.

- 4) If, following installation of the OSS with additional noise attenuation measures required above, SFV results indicate that any isopleths of concern are still larger than those modeled assuming 10 dB attenuation, the Permittee must, before the third OSS can be installed, identify and propose for review and concurrence an additional noise attenuation device or devices and/or modifications to the pile driving operations that are expected to reduce noise and reduce the distance to thresholds of concern to no greater than the modeled distances (assuming 10 dB attenuation). Following concurrence from BOEM, the Corps, and/or BSEE in consultation with NMFS GARFO PRD, the Permittee must implement those measures, along with the expanded clearance and shutdown zones and additional PSOs (see above) for the third OSS.
- 5) If the Permittee is unable to identify additional measures for implementation as outlined above, or if the SFV required above indicates that the distance to any isopleths of concerns for any ESA listed species are still larger than those modeled assuming 10 dB attenuation BOEM will discuss with other co-action agencies the results of SFV monitoring, the severity of exceedance of distances to identified isopleths of concern, the species affected, modeling assumptions, and whether additional action is required. Following installation of the second OSS with additional noise attenuation measures required above, if SFV results indicate that all isopleths of concern are within distances to isopleths of concern modeled assuming 10 dB attenuation, the Permittee must continue to implement the additional sound attenuation measures for OSS 3 and, upon BOEM, the Corps, and BSEE's concurrence in consultation with NMFS GARFO, the Permittee can revert to the original clearance and shutdown zones or continue with the expanded clearance and shutdown zones with additional PSOs.
- i. Clearance or Shutdown Zone Adjustment After SFV: The Permittee must conduct SFV consistent with the SFV Plan. BOEM, the Corps, and BSEE, in cooperation with NMFS OPR and NMFS GARFO PRD, may approve the Permittee's request for reductions in the shutdown zones for sei, fin or sperm whales based upon SFV of a minimum of 3 piles; however, the shutdown zone for sei whales, fin whales, and sperm whales must not be reduced to fewer than 1,000 meters, or 500 meters for sea turtles. This stipulation does not apply to the clearance or shutdown zones for NARWs.
- j. Pile-Driving Clearance Zones for Marine Mammals and Sea Turtles: The Permittee must establish and implement clearance and shutdown zones (all distances to the perimeter are the radii from the center of the pile being driven) as described above for all WTG and OSS foundation installation. The Permittee must use visual PSOs and PAM operators to monitor the area around each foundation pile before, during, and after pile driving. PSOs must visually monitor clearance zones for marine mammals and sea turtles for a minimum of 60 minutes prior to commencing pile driving. Acoustic PSOs (at least one PAM operator) must review data from at least 24 hours prior to pile driving and actively

monitor hydrophones for 60 minutes prior to pile driving. Prior to initiating soft-start procedures, the entire minimum visibility zone must be visible (i.e., not obscured by dark, rain, fog, etc.) and all clearance zones must be visually confirmed to be free of marine mammals and sea turtles for 30 minutes immediately prior to starting a soft-start of pile driving. Clearance zones extending beyond this minimum visibility zone may be cleared using both visual and acoustic methods. If a marine mammal or sea turtles is observed entering or within the relevant clearance zone prior to the initiation of pile-driving activities, pile driving must be delayed and must not begin until either the marine mammal(s) or sea turtle(s) has voluntarily left the specific clearance zones and have been visually or acoustically confirmed beyond that clearance zone, or, when specific time periods have elapsed with no further sightings or acoustic detections having occurred (i.e., 15 minutes for small odontocetes and 30 minutes for all other marine mammal species and sea turtles). The clearance zone may only be declared clear if no confirmed NARW acoustic detections (in addition to visual) have occurred during the 60-minute monitoring period. Any large whale sighting by a PSO or detected by a PAM operator that cannot be identified as a non-NARW must be treated as if it were a NARW.

- 1) During periods of low visibility (e.g., darkness, rain, fog, etc.), PSOs must use alternative technology (i.e., IR/thermal camera) to achieve the required minimum visibility zone and monitor the clearance and shutdown zones.
- k. Pile-Driving Shutdown for Marine Mammals and Sea Turtles: If a marine mammal or sea turtle is observed entering or within the respective shutdown zone, as defined above, during pile driving, the PSO must call for a temporary cessation of pile driving. The Permittee must immediately cease pile driving upon orders of the PSO unless shutdown is not practicable due to imminent risk of injury or loss of life to an individual, risk of damage to a vessel that creates risk of injury or loss of life for individuals, risk of pile refusal, or pile instability that may lead to a risk of injury or the loss of life (as determined by the lead engineer). In this situation, reduced hammer energy must be implemented instead (for pile driving), as determined to be practicable. The Permittee must file a report with BSEE, the Corps, NMFS OPR, and NMFS GARFO PRD if any ESA-listed species is observed within the identified shutdown zone during active pile driving as described above.
- 1) Pile Driving Restart Procedures for Marine Mammal or Sea Turtle Detections: Pile driving must not restart until either the marine mammal(s) or sea turtle(s) has voluntarily left the specific clearance zones and has been visually or acoustically confirmed beyond that clearance zone, or, when the appropriate time-- 5 minutes for small odontocetes and pinnipeds and 30 minutes for all other marine mammal species and sea turtles-- has elapsed with no further sightings or acoustic detections having occurred. In cases where these criteria are not met, the Permittee may only restart pile driving if necessary to maintain pile stability at which time the lowest hammer energy must be used to maintain stability. If pile driving has been shut down due to the presence of a NARW, the Permittee may not restart pile driving until the NARW is no

longer observed or 30 minutes have elapsed since the last detection. The Permittee must use soft start protocols upon re-starting pile driving.

- 2) Soft Start for Pile Driving: The Permittee must use a soft start protocol for pile driving of monopiles by performing 4-6 strikes per minute at 10 to 20 percent of the maximum hammer energy, for a minimum of 20 minutes. Soft start must be used at the beginning of pile driving for each day's monopile pin pile installation, and at any time following a cessation of pile driving of 30 minutes or longer. If a marine mammal or sea turtle is detected within or about to enter the applicable clearance zones, prior to the beginning of soft-start procedures, pile driving must be delayed until the animal has been visually observed exiting the clearance zone or until a specific time period has elapsed with no further sightings (i.e., 15 minutes for small odontocetes and pinnipeds and 30 minutes for all other marine mammal species and sea turtles).

62. High Resolution Geophysical (HRG) Survey Conditions for Marine Mammals and Sea Turtles: The Permittee must submit all required documents related to HRG survey conditions as detailed in this authorization to BOEM, the Corps, BSE, with a notification email sent to protectedspecies@bsee.gov, to NMFS OPR, and to NMFS GARFO PRD.

- a. Use of PSOs: The Permittee must employ qualified NMFS-approved PSOs during HRG surveys related to the Project using sound sources operating at frequencies below 180 kHz. PSOs must begin visually monitoring 30 minutes prior to the initiation of the specified acoustic source (i.e., ramp-up, if applicable) through 30 minutes after the use of the specified acoustic source has ceased. Any observations of marine mammals must be communicated to PSOs on all nearby survey vessels during concurrent HRG surveys. PSOs must establish and monitor the clearance and shutdown zones described below. These zones must be based on the radial distance from the acoustic source and not from the vessel. HRG Survey Clearance and Shutdown Zones for:
 - 1) NARW – visual detections: 500 m and 500 m
 - 2) Fin, sei, and sperm whale: 500 m and 500 m
 - 3) Sea Turtles: 500 m and 100 m
- b. HRG Clearance Procedures: The Permittee must implement a 30-minute clearance period of the clearance zones immediately prior to the commencing of the survey or when there is more than a 30-minute break in survey activities and PSOs are not actively monitoring. The clearance zones must be monitored by PSOs, using the appropriate visual technology. If a marine mammal or sea turtle is observed within a clearance zone during the clearance period, ramp-up must not begin until the animal(s) has been observed voluntarily exiting its respective clearance zone or until the time periods described in Section 5.12.10 have elapsed). In any case when the clearance process has begun in conditions with good visibility, including via the use of night vision equipment (IR/thermal camera), and the Lead PSO has determined that the clearance zones are clear of marine mammals and sea turtles, survey operations may commence (i.e., no delay is required) despite periods of inclement weather and/or loss of daylight.

- 1) During periods of low visibility (e.g., darkness, rain, fog, etc.), PSOs must use alternative technology (i.e., IR/thermal camera) to achieve the required minimum visibility zone and monitor the clearance and shutdown zones.
- c. HRG Shutdown Procedures: Once the survey has commenced, the Permittee must shut down boomers, sparkers, and CHIRPs if a marine mammal or sea turtle enters a respective shutdown zone. In cases when the shutdown zones become obscured for brief periods due to inclement weather, survey operations may continue (i.e., no shutdown is required) so long as no marine mammals or sea turtles have been detected. The use of boomers, and sparkers, and CHIRPS must not commence or resume until the animal(s) has been confirmed to have left the shutdown zone or until a full 15 minutes (for small odontocetes and seals) or 30 minutes (for all other marine mammals and sea turtles) have elapsed with no further sighting. Any large whale sighted by a PSO within 1,000 meters of the boomers, sparkers, and CHIRPs that cannot be identified as a non-NARW must be treated as if it were a NARW. Shutdown zones are defined as a 500-meter zone for the NARW and all other ESA-listed marine mammal species. The shutdown requirement is waived for small delphinids of the following genera: *Delphinus*, *Stenella*, *Lagenorhynchus*, and *Tursiops*. Specifically, if a delphinid from the specified genera is visually detected approaching the vessel (i.e., to bow-ride) or towed equipment, shutdown will not be required. Furthermore, if there is uncertainty regarding identification of a marine mammal species (i.e., whether the observed marine mammal(s) belongs to one of the delphinid genera for which shutdown is waived), the PSOs must use their best professional judgment in making the decision to call for a shutdown. Additionally, shutdown is required if a delphinid that belongs to a genus other than those specified is detected in the shutdown zone. If surveys are necessary during periods of low visibility (e.g., darkness, rain, fog, etc.), an Alternative Monitoring Plan must be submitted to BOEM, the Corps, and BSEE detailing the monitoring methodology that will be used during nighttime and low-visibility survey operations. The plan must be submitted at least 60 days before low visibility survey operations are planned to begin for a 30-day review. Comments must be resolved to BOEM, the Corps, and BSEE's satisfaction.
- d. HRG Restart Procedures: If a boomer, sparker, or CHIRP is shut down for reasons other than mitigation (e.g., mechanical difficulty) for fewer than 30 minutes, it may be activated again without ramp-up only if:
 - 1) PSOs have maintained constant observation and
 - 2) no additional detections of any marine mammal or sea turtles occurred within the respective shutdown zones. If a boomer, sparker, or CHIRP was shut down for a period longer than 30 minutes, then all clearance and ramp-up procedures must be initiated.
- e. Ramp-Up Procedures: At the start or restart of the use of boomers, sparkers, and/or CHIRPs, a ramp-up procedure (i.e., gradual increase in source level output) must be followed unless the equipment operates on a binary on/off switch. Operators must ramp up sources to half power for 5 minutes and then proceed to full power. Prior to a ramp-up procedure starting, the operator must notify a PSO of the planned start of the ramp-up. This notification time must not

be fewer than 60 minutes prior to the planned ramp-up activities as all relevant PSOs must use the appropriate 30-minute period to monitor prior to the initiation of ramp-up. Prior to ramp-up beginning, visual clearance zones must be fully visible (e.g., not obscured by darkness, rain, fog, etc.) and the operator must receive confirmation from the PSO that the clearance zone is clear of any marine mammals and sea turtles. All ramp-ups must be scheduled to minimize the overall time spent with the source being activated. The ramp-up procedure must be used at the beginning of construction survey activities or after more than a 30-minute break in survey activities using the specified HRG equipment to provide additional protection to marine mammals and sea turtles in or near the survey area by allowing them to vacate the area prior to operation of survey equipment at full power.

- 1) The Permittee must not initiate ramp-up until the clearance process has been completed (see Clearance and Shutdown Zones sections above). Ramp-up activities must be delayed if a marine mammal(s) or sea turtle(s) enters its respective shutdown zone. Ramp-up must only be reinitiated if the animal(s) has been observed exiting its respective shutdown zone or until additional time has elapsed with no further sighting (i.e., 15 minutes for small odontocetes and pinnipeds, and 30 minutes for all other marine mammal species and sea turtles).
- f. The Permittee must deactivate acoustic sources during periods where no data are being collected, except as determined to be necessary for testing. Any unnecessary use of the acoustic source(s) must be avoided.
- g. During daylight hours when survey equipment is not operating, the Permittee must ensure that visual PSOs conduct, as rotation schedules allow, observations for comparison of sighting rates and behavior with and without use of the specified acoustic sources. Off-effort PSO monitoring must be reflected in the monthly PSO monitoring reports.

63. Marine and Aquatic Species Reporting: The Permittee must submit all required documents related to ESA and non-ESA listed marine and aquatic species reporting conditions outlined within this authorization to BOEM, the Corps, BSEE with a notification email sent to protectedspecies@bsee.gov, to NMFS OPR, and to NMFS GARFO PRD.

- a. Pre-Construction Reporting: Within 10 business days of BSEE issuing a no objection to the complete Facility Design Report (FDR)/Fabrication and Installation Report (FIR) (but at least 30 days prior to the initiation of pile driving) or the soonest time the relevant information is available, the Permittee must provide BOEM, the Corps, BSEE, and NMFS GARFO PRD with the following information: number and size of foundations to be installed to support WTG and OSSs, installation method for each of the seven planned cofferdams, the proposed construction schedule (i.e., months when pile driving is planned), and information that has become available on the ports identified for foundation fabrication and load out, WTG pre-assembly and load out, and cable staging. BOEM will review the information and based on coordination with NMFS GARFO PRD, BOEM will notify the Permittee within 30 days of NMFS GARFO PRD's

receipt of the information identified here whether ESA Section 7 consultation with NMFS needs to be reinitiated.

b. Situational Reporting:

- 1) Reporting of All NARW Sightings: If a NARW is observed at any time by PSOs or personnel on any Project vessels, during any Project-related activity, including during vessel transit, the Permittee must immediately report sighting information to BOEM, the Corps, BSEE, NMFS (866-755-6622), the USCG via channel 16 and through the WhaleAlert app (<http://www.whalealert.org/>). The Permittee must include in its report the time, location, and number of animals sighted, animal behavior, animal closest point of approach, Project activities at time of detection, vessel speed, any mitigation measures implemented, and the reporter's contact information.
 - a) If a North Atlantic right whale is detected at any time by PSOs/PAM Operators via PAM, the Permittee must ensure the detection is reported as soon as possible and no longer than 24 hours after the detection to NMFS via the 24-hour North Atlantic right whale Detection Template (<https://www.fisheries.noaa.gov/resource/document/passive-acoustic-reportingsystem-templates>). Calling the hotline is not necessary when reporting PAM detections via the template.
 - b) A summary report must be sent within 24 hours to NMFS GARFO PRD (nmfs.gar.incidentaltake@noaa.gov) and NMFS OPR (PR.ITP.MonitoringReports@noaa.gov) with the above information and with confirmation that the sighting/detection was reported to the respective hotline, and describing the following: the vessel/platform from which the sighting/detection was made, the activity the vessel/platform was engaged in at time of sighting/detection, the Project construction and/or survey activity that was ongoing at time of sighting/detection (e.g., pile driving, cable installation, HRG survey), the distance from vessel/platform to animal at time of initial sighting/detection, the closest point of approach of whale to vessel/platform, vessel speed, and any mitigation actions taken in response to the sighting.
- 2) Reporting of ESA Listed Species within Shutdown Zone During Active Pile Driving: In the event that any ESA listed species is observed within the identified shutdown zone during active pile driving, the Permittee must file a report with BOEM, the Corps, BSEE, and NMFS GARFO within 48 hours of the incident and include the following: duration of pile driving prior to the detection of the animal, location of PSOs and any factors that impaired visibility or detection ability, time of detection of the animal, time the PSO called for shutdown, time the pile driving was stopped, and any measures implemented (e.g., reduced hammer energy) prior to shut down. The Permittee must include in its report the time that the animal was last detected and any PSO reports on the behavior of the animal. If shutdown was determined not to be feasible, the Permittee report must include an explanation for that determination and the measures that were implemented (e.g., reduced hammer energy).

- 3) Detected or Impacted Protected Species Reporting: The Permittee must report within 48 hours all observations or collections of a stranded, entangled, injured, or dead ESA-listed species (e.g., marine mammal, sea turtle, listed fish) to the Corps, BSEE (via TIMSWeb and notification email to protectedspecies@bsee.gov), and NMFS. The Permittee must ensure its reports reference the Project and include the Take Report Form available on NMFS webpage (<https://media.fisheries.noaa.gov/2021-07/Take%20Report%20Form%2007162021.pdf?null>). The report must include:
- a) Contact information (name, phone number, etc.), time, date, and location (coordinates) of the first discovery (and updated location information if known and applicable);
 - b) Species identification (if known) or description of the animal(s) involved;
 - c) Condition of the animal(s) (including carcass condition if the animal is dead);
 - d) Observed behaviors of the animal(s), if alive;
 - e) If available, photographs or video footage of the animal(s); and
 - f) General circumstances under which the animal was discovered. Staff responding to the hotline call will provide any instructions for handling or disposing of any injured or dead animals, which may include coordination of transport to shore, particularly for injured sea turtles.
- (1) The Permittee must ensure reports of Atlantic sturgeon take include a statement as to whether a fin clip sample for genetic sampling was taken. Fin clip samples are required in all cases with the only exception being when additional handling of the sturgeon may result in an imminent risk of injury to the fish or the PSO. Incidents falling within the exception are expected. Instructions for fin clips and associated metadata are available at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-take-reporting-programmatics-greater-atlantic> under the “Sturgeon Genetics Sampling” heading.
- (2) The Permittee must report any suspected or confirmed vessel strike of any ESA-listed species (marine mammal, sea turtle, listed fish) by any Project vessel in any location, including observation of any injured sea turtle/sturgeon or sea turtle/sturgeon parts to BOEM, the Corps, BSEE, NMFS GARFO, and NMFS New England/Mid-Atlantic Regional Stranding Hotline (866-755-6622) as soon as feasible. Separately, the Permittee must report the incident, if in the Greater Atlantic region (ME to VA) to GARFO (nmfs.gar.incidentaltake@noaa.gov) or if in the Southeast region (NC-FL) to NMFS SERO (secmammalreports@noaa.gov) as soon as feasible. The Permittee must include in the report the following information:
- (a) Time, date, and location of the incident;
 - (b) Species identification (if known) or description of the animal(s) involved (i.e., identifiable features including animal color, presence of dorsal fin, body shape and size);

- (c) Vessel strike reporter information (name, affiliation, email for person completing the report);
 - (d) Vessel strike witness (if different than reporter) information (name, affiliation, phone number, platform for person witnessing the event);
 - (e) Vessel name and/or MMSI number;
 - (f) Vessel size and motor configuration (inboard, outboard, jet propulsion);
 - (g) Vessel's speed leading up to and during the incident;
 - (h) Vessel's course/heading and what operations were being conducted (if applicable);
 - (i) Part of vessel that struck whale (if known);
 - (j) Vessel damage notes;
 - (k) Status of all sound sources in use;
 - (l) If animal was seen before strike event;
 - (m) Behavior of animal before strike event;
 - (n) Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;
 - (o) Environmental conditions (e.g., wind speed and direction, Beaufort scale sea state, cloud cover, visibility) immediately preceding the strike;
 - (p) Estimated (or actual, if known) size and length of animal that was struck;
 - (q) Description of the behavior of the marine mammal immediately preceding and following the strike;
 - (r) If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;
 - (s) Other animal details if known (e.g., length, sex, age class);
 - (t) Behavior or estimated fate of the animal post-strike (e.g., dead, injured but alive, injured and moving, external visible wounds (linear wounds, propeller wounds, non-cutting blunt-force trauma wounds), blood or tissue observed in the water, status unknown, disappeared);
 - (u) To the extent practicable, photographs or video footage of the animal(s); and
 - (v) Any additional notes the witness may have from the interaction.
- 4) Detected or Impacted Dead Non-ESA-Listed Fish: The Permittee must report any occurrence of at least 10 dead non-ESA-listed fish within established shutdown or monitoring zones to BOEM, the Corps, and BSEE as soon as practicable (taking into account crew and vessel safety), but no later than 24 hours after the sighting. BOEM or BSEE will notify NMFS GARFO. The Permittee must confirm the relevant point of contact prior to reporting and confirm the reporting was received.
- 5) SFV Interim Reports: The Permittee must also provide, as soon as they are available, but no later than 48 hours after the installation of each of the first three monopiles and each of the three OSS foundations (inclusive of all four

pin piles), the initial results of the SFV measurements to BOEM, the Corps, BSEE, and NMFS GARFO PRD in an interim report. If technical or other issues prevent submission within 48 hours, the Permittee must notify NMFS GARFO PRD within that 48-hour period with the reasons for delay and provide an anticipated schedule for submission of the report. This report is required for each of the first three monopiles and each of the three OSS foundations installed and any additional piles for which SFV is required. The interim report must include data from hydrophones identified for interim reporting in the SFV Plan and include a summary of pile installation activities (pile diameter, pile weight, pile length, water depth, sediment type, hammer type, total strikes, total installation time [start time, end time], duration of pile driving, max single strike energy, NAS deployments), pile location, recorder locations, modeled and measured distances to thresholds, received levels (rms, peak, and SEL) results from Conductivity, Temperature, and Depth (CTD) casts/sound velocity profiles, signal and kurtosis rise times, pile-driving plots, activity logs, weather conditions. If there are any updates to the requirements to the contents of the Interim Plan, including availability of a template, this will be provided to CVOW as soon as any such updates are available. Additionally, any important sound attenuation device malfunctions (suspected or definite) must be summarized and substantiated with data (e.g., photos, positions, environmental data, directions, etc.) and observations. Such malfunctions include gaps in the bubble curtain, significant drifting of the bubble curtain, and any other issues which may indicate sub-optimal mitigation performance or are used by the Permittee to explain performance issues.

- a) The final results of SFV for monopile installations must be submitted as soon as possible, but no later than within 90 days following completion of pile driving.
- b) The final results of SFV for the three OSS foundation installations must be submitted as soon as possible, but no later than within 90 days following completion of pile driving.
- c. Weekly Pile-Driving Reports: The Permittee must compile and submit weekly reports during pile driving that document the start and stop of all pile driving daily, the start and stop of associated observation periods by the PSOs, details on the deployment of PSOs, and a record of all observations of marine mammals and sea turtles. These weekly reports must be submitted to NMFS OPR, NMFS GARFO PRD, BOEM, and BSEE directly from the PSO providers and may consist of raw data. Weekly reports must be submitted no later than Wednesday for the previous week (Sunday – Saturday).
 - 1) Weekly monitoring reports must include the following: summaries of pile-driving activities and piles installed, including start and stop times, pile locations, NMS performance, and PSO coverage; vessel operations (including port departures, number of vessels, type of vessel(s), and route); all protected species detections (including species identification, number of animals, time at initial detection, time at final detection, distance to pile at initial detection, closest point of approach to pile, animal direction of travel

- relative to pile; description of animal behavior, features used to identify species, and for moving vessels: speed (knots), distance and bearing to animal at initial detection, closest point of approach and bearing to animal, distance and bearing to animal at final detection, and animal direction of travel relative to vessel); vessel strike avoidance measures taken; and any equipment shutdowns or takes that may have occurred.
- 2) The Permittee must reduce any unanticipated impacts on marine mammals and sea turtles by adjusting pile-driving monitoring protocols for clearance and shutdown zones, taking into account weekly monitoring results. Any proposed changes to monitoring protocols must be concurred with by BOEM, the Corps, and BSEE in coordination with NMFS before those protocols are implemented.
 - d. Monthly Reports: The Permittee must compile and submit monthly reports that include a summary of all Project activities carried out in the previous month, vessel transits (number, type of vessel, and route inclusive of port of origin and destination), and piles installed, and all observations of ESA listed whales, sea turtles, and sturgeon. These reports must be submitted to BOEM BSEE, NMFS OPR, and NMFS GARFO PRD no later than the 15th of the month for the previous month.
 - a) Reporting Instructions for PSO Pile-Driving Monitoring Reports: PSOs must collect data consistent with standard reporting forms, software tools, or electronic data forms authorized by BOEM for the particular activity, as detailed in the COP. PSOs must fill out report forms for each vessel with PSOs aboard. All PSO data must be generated through software applications or otherwise recorded electronically by PSOs and provided to BOEM and BSEE in electronic format (csv files or similar format) and be QA/QC'd. Applications developed to record PSO data are encouraged, as long as the data fields listed below can be recorded and exported into Excel. Alternatively, BOEM has developed an Excel spreadsheet, with all the necessary data fields, that is available from BOEM upon request.
 - e. Annual Reports: Beginning in Year 2 of operations, the Permittee must compile and submit annual reports that include a summary of all Project activities carried out in the previous year, including vessel transits (number, type of vessel, and route inclusive of port origin and destination), repair and maintenance activities, survey activity, and all observations of ESA-listed species. The annual reports must be submitted to BOEM, the Corps, BSEE, NMFS OPR, and NMFS GARFO PRD. The Permittee must submit these reports by April 1 of each year (i.e., the 2026 report is due by April 1, 2027) for the previous calendar year. Upon mutual agreement of NMFS, the Corps, BOEM, and BSEE, the frequency of reports can be changed.
64. The Permittee must submit the final MMPA ITA as issued by NMFS OPR to the Corps for review to determine if a permit modification is necessary to incorporate any new or revised measures for pile driving or related activities to ensure compliance with any measures in the final MMPA ITA that are revised from, or in

addition to, measures included in the proposed ITA which have been incorporated into the proposed action.

65. Where complex habitats and benthic features are identified within the project footprint that warrant additional avoidance, where practicable, the constructed design shall be micro-sited to avoid and minimize impacts to these complex habitats and benthic features to the greatest extent practicable. At least 120 days prior to the commencement of cable installation work, the permittee shall provide a Micrositing Plan that includes draft cable siting to BOEM, the Corps, and NMFS. The plan shall delineate areas of complex habitat within the construction footprint. The permittee shall avoid complex habitat to the maximum extent practicable while also considering engineering and other siting constraints. The permittee shall clearly identify any areas of complex habitat that cannot be avoided and provide an explanation. BOEM, the Corps, and NMFS will have 60 days to review the plan and provide comments. The permittee will respond to any comments prior to the commencement of work. For areas where complex habitats cannot be fully avoided, the micrositing plan should prioritize avoidance/minimization in order of decreasing habitat complexity.
66. To protect benthic habitats and EFH, the permittee shall develop and submit anchoring plans for BOEM, the Corps, and NMFS review, within 30 days of permit issuance for work occurring within nearshore areas and at least 120 days prior to commencement of work on the OCS. The plans shall delineate any areas of complex habitat that are identified within the construction footprint. These plans shall be provided to all construction and support vessels to ensure the anchoring of vessels or other work occurs within these sensitive habitats is avoided to the greatest extent practicable. BOEM, the Corps, and NMFS will have 60 calendar days to review and comment. The permittee is responsible for addressing any comments before construction activities can begin. For areas where complex habitats cannot be fully avoided, the anchoring plan should prioritize avoidance/minimization in order of decreasing habitat complexity. If there are less than 30 days between anchoring activities in nearshore areas, and less than 120 days between anchoring activities and the COP approval, the Permittee must submit the plans as soon as practicable.
67. The Corps recommends continued coordination with BOEM and NMFS regarding post-construction monitoring plans to further study effects of the project on EFH and benthic habitats.
68. Should scientific survey activities conflict with construction activities, you shall coordinate with NOAA and other interested parties to minimize impacts to those survey activities. Should it be determined that adverse impacts to scientific surveys have occurred as a result of the project, you will be required to mitigate those impacts in accordance with the NMFS-BOEM Federal Survey Mitigation Strategy.

HISTORIC RESOURCES

69. You must comply with the Stipulations of the executed Memorandum of Agreement (MOA) entitled “Memorandum of Agreement among the Bureau of Ocean Energy Management, the State Historic Preservation Officers of Virginia and North Carolina, and the Advisory Council on Historic Preservation regarding the Coastal Virginia Offshore Wind Commercial Project” dated October 2023. The purpose of the MOA is to avoid, minimize, and mitigate adverse effects to historic properties as required under Section 106 of the NHPA.

NAVIGATION

70. National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activities authorized by this permit. Your notification of completion must include a drawing which certifies the location and configuration of the completed activity (a certified permit drawing may be used). Notifications to NOS will be sent via email at ocs.ndb@noaa.gov or to the following address: National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Springs MD, 20910-3282. Notification to NOS shall be as follows:
- a. You must Notify NOAA’s Nautical Data Branch by email at ocs.ndb@noaa.gov at least two weeks prior to commencement of installation of the Offshore Export Cables as detailed in the projects Navigation Safety Risk Assessment (NSRA).
 - b. You must notify NOAA’s Nautical Data Branch by email at ocs.ndb@noaa.gov at least two weeks prior to commencement of the installation in the BOEM Lease Area of each Project component, i.e., scour protection, OSS, monopiles, Inter-Array Cables, and WTG’s.
 - c. When construction of the Offshore Export Cables and all other offshore subprojects are complete, you must notify NOAA’s Nautical Data Branch by email at ocs.ndb@noaa.gov and provide as-built drawings with explicit geographic control, horizontal datum (WGS 84 or NAD83), survey unit, survey date and any other relevant information. Digital data is preferred (e.g., CAD, GIS, PDF, Excel spreadsheets for route position lists of cables, etc.). If construction deviates from the permit, please provide an approved plan with the changes made or indicate what changed from the original plan.
 - d. When construction of the Overhead cable crossing at the Atlantic Intracoastal Waterway is complete, notify NOAA’s Nautical Data Branch by email at ocs.ndb@noaa.gov, and provide as-built drawings with explicit geographic control, horizontal datum (WGS 84 or NAD83), vertical clearance at Mean High Water (MHW), and any other relevant information. Digital data is preferred (e.g., CAD, GIS, PDF).
71. You must install and maintain, at your expense, any safety lights and signals prescribed by the United States Coast Guard (USCG), through regulations or otherwise, on your authorized facilities. The USCG may be reached at the following address and telephone number: Commander (DPW), Fifth Coast Guard District, 431

Crawford Street, Portsmouth, VA, 23704-5004, ATTN: Mr. Matthew Creelman. Mr. Creelman may be contacted via telephone at (757) 398-6225 or via email at matthew.k.creelman2@uscg.mil.

72. The contractor must notify the United States Coast Guard Fifth Coast Guard District Office two (2) weeks prior to the beginning of in water work with pertinent information so it can be included in the Local Notice to Mariners (LNM). You must coordinate with the U.S. Coast Guard (USCG), Fifth Coast Guard District via email at CGD5Waterways@uscg.mil or via telephone at (757) 398-6220, and copy the USCG Sector Virginia via email at VirginiaWaterways@uscg.mil or via telephone at (757) 668-5580.
73. Emergency Response Procedure: Prior to construction of the project, the Permittee must submit an Emergency Response Procedure addressing non-routine events for review and concurrence by BSEE. The Permittee must submit any revisions of the procedure once every 3 years or upon BSEE's request. The Emergency Response Procedure must address the following:
- a. Standard Operating Procedures. The Permittee must describe the procedures and systems that will be used at project facilities in the case of emergencies, accidents, or non-routine conditions, regardless of whether they are man-made or natural. The Permittee must include, as a part of the standard operating procedures for non-routine conditions, descriptions of high-consequence and low probability events, including methods for:
 - 1) establishing and testing WTG rotor shutdown, braking, and locking;
 - 2) lighting control;
 - 3) notifying the USCG of mariners in distress or potential/actual search and rescue incidents;
 - 4) notifying BSEE and the USCG of any events or incidents that may impact maritime safety or security; and
 - 5) providing the USCG with environmental data, imagery, communications, and other information pertinent to search and rescue or marine pollution response.
 - b. Communications. The Permittee must describe the capabilities to be maintained by the control center to communicate with the USCG.
 - c. Monitoring. The control center must maintain the capability to monitor (e.g., using cameras) the Permittee's installation and operations in real time, including at night and in periods of poor visibility.
74. Oil Spill Response Procedure: Prior to construction of the project, the Permittee must submit an Oil Spill Response Plan (OSRP) for review and approval by BSEE and the Corps. You must notify the Corps in advance of any planned oil spill related activities, including training or response to oil spill incidents, that are occurring within waters to determine if any additional authorizations will be required by the Corps.
75. Marking of WTGs and OSSs: The Permittee must mark each WTG and OSS with private aids to navigation (PATON). No sooner than 180 days and no fewer than 60 days before foundation installation, the Permittee must file an application (form CG-

2554), either in paper form or electronically at this website: (<http://www.usharbormaster.com>), with the Commander of the Fifth Coast Guard District to establish PATON, as provided in 33 CFR Part 66. USCG approval of the application must be obtained before the Permittee begins installation of the facilities. The lighting, marking, and signaling plan and design specifications for maritime navigation lighting must be included in the PATON application. The Permittee must:

- a. Provide a lighting, marking, and signaling plan for review by BOEM, BSEE, and the USCG at least 120 days before installation. The Permittee must obtain BOEM's and BSEE's concurrence with this plan before installation may commence. The plan must conform to applicable Federal law and regulations, and guidelines, e.g., International Association of Marine Aids to Navigation and Lighthouse Authorities Recommendation G1162, The Marking of Man-Made Offshore Structures; USCG's LNM (D05 LNM: 31/23) or the most recent version on Ocean-Structure PATON Marking Guidance; and BOEM's Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development (April 28, 2021).
- b. Mark each individual WTG and OSS with clearly visible, unique, alpha-numeric identification characters as agreed to by BOEM, BSEE, and the USCG. The Permittee must additionally display this label on each WTG nacelle, visible from above. If the Permittee's OSS includes helicopter landing platforms, the Permittee must also display this label on the platforms.
- c. For each WTG, the Permittee must install red obstruction lighting that is consistent with the Federal Aviation Administration (FAA) Advisory Circular 70/7460-IM.
- d. Provide signage that is visible to mariners in a 360-degree arc around the structures to inform vessels of the vertical blade-tip clearance air draft below the turbine blades as determined at Highest Astronomical Tide (HAT).
- e. Submit documentation to BSEE via TIMSWeb, no later than January 31 of each calendar year for all facilities installed within the preceding calendar year, of the Permittee's compliance with these conditions.
- f. Immediately report discrepancies in the status of all PATONs to the local USCG Sector Command Center (a timeline of when discrepancies can be resolved must be sent to USCG within 14 days of identifying the discrepancy).

76. Blade/Nacelle Control: The Permittee must equip all WTG rotors (blade assemblies) with control mechanisms constantly operable from the Permittee's control center.
- a. Control mechanisms must enable the Permittee to immediately initiate the shutdown of any WTG upon emergency order from the Department of Defense (DOD) or the USCG. The Permittee must initiate braking and shut down of each requested WTG after the shutdown order. The Permittee may resume operations only upon notification from the entity (DOD or USCG) that initiated the shutdown.
 - b. The Permittee must include a shutdown procedure in its Emergency Response Procedure and test the shutdown capability (functioning) of at least one WTG within the field at least annually. The Permittee must submit the results of testing to BSEE with the Project's annual inspection results.

- c. The Permittee must work with the USCG to establish the proper blade configuration during WTG shutdown for USCG air assets conducting search and rescue operations.
 - d. The Permittee must notify the USCG and BSEE in advance of trainings and exercises to test and refine notification and shutdown procedures, allow USCG and BSEE to participate in these trainings and exercises, and provide search and rescue training opportunities for USCG Command Centers, vessels, and aircraft.
77. Structure Micrositing. The Permittee must neither adjust approved structure locations in a way that narrows any linear rows and columns oriented both east-west or northwest-southeast to fewer than 0.75 nautical miles by 0.93 nautical miles nor to a layout that eliminates two distinct lines of orientation in a grid pattern. The Permittee must submit the final as-built structure locations as part of the as-built documentation.
78. Pursuant to the NSRA “the minimum blade clearance for WTG blades will be 82 ft (25 m) above HAT [Highest Astronomical Tide].” To meet this requirement, the Permittee must ensure that the WTG blades are installed and maintained at a minimum of 109.2 feet at their lowest point above mean high water (MHW). The minimum blade clearance at MHW must be depicted in the as-built documents (Distance from tip to MHW + 33.29 m).
79. Existing and/or new transmission of 230kV lines shall be installed and maintained to minimum of 91 feet at their lowest point above the mean high water where they cross the Atlantic Intracoastal Waterway- Albemarle Chesapeake Canal (AIWW-ACC). This is 65 feet above the waterway, plus a minimum of 26 feet for a safety factor. Additional clearance shall be provided as determined by Dominion Energy.
80. Anchoring Plan: The Permittee must prepare and implement Anchoring Plans/Plats for both nearshore and OCS areas where anchoring, jack-up barges, or buoy placement occurs during construction, operations/maintenance, or decommissioning within 1,640 feet (500 meters) of habitats, resources, and submerged infrastructure that are sensitive, including complex habitat, steep slopes with gradients greater than or equal to 10 degrees; boulders greater than or equal to 0.5 meters in diameter; ancient submerged landform features (ASLFs); known and potential shipwrecks; potentially significant debris fields; potential hazards; and any related facility installation activities (such as cable, WTG, and OSS installation). The Permittee must provide to all construction and support vessels the locations where anchoring, jack-up barge spud can, or buoy placement must be avoided to the extent technically and /or economically feasible, including complex habitat; steep slopes with gradients greater than or equal to 10 degrees; boulders greater than or equal to 0.5 meters in diameter; ASLFs; known and potential shipwrecks; potentially significant debris fields; potential hazards; and any related facility installation activities (such as cable, WTG, and OSS installation). If anchoring is necessary at these locations, then all vessels deploying anchors must extend the anchor lines to the extent practicable to minimize the number of times the anchors must be raised

and lowered to reduce the amount of habitat disturbance unless the anchor chain sweep area includes complex habitat that may be impacted by the chain sweep. On all vessels deploying anchors, the Permittee must use mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seabed, unless the Permittee demonstrates, and BOEM, the Corps, and BSEE accept, that (1) the use of mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seabed is not technically feasible; or (2) a different alternative is as safe and provides the same or greater environmental protection. In any instances where the Permittee believes there is technical infeasibility for using mid-line anchor buoys, the Permittee must provide a technical analysis to support reasoning for infeasibility, as appropriate, for review and concurrence by BOEM, the Corps, and BSEE. This condition does not apply to emergency situations when anchoring is required to protect life, property, or the environment. You must notify the agencies in the event you must anchor in a manner which deviates from the plans and return to operating under the normal conditions of these plans as soon as it is safe to do so.

The Permittee must provide the Anchoring Plan for construction related activities (pre-seabed clearance, Offshore Export Cable, Inter-array Cable) to BOEM, the Corps, and BSEE with a notification email sent to NMFS GARFO HESD for a 60-day review at least 120 days before anchoring activities and construction begins for the Offshore Export and Inter-array Cables occurring on the OCS, and submit a plan within 30 days of permit issuance for anchoring activities occurring in nearshore areas. The Permittee must resolve all comments on the Anchoring Plan to BOEM's and BSEE's satisfaction before conducting any seabed-disturbing activities that require anchoring. If there are less than 120 days between anchoring activities and the COP approval, the Permittee must submit the plan as soon as practicable and no later than 60 days prior to commencing activities.

81. Micrositing Plan: The Permittee must prepare and implement a Micrositing Plan that describes how WTG locations, OSS locations, Inter-array, and Offshore Export Cable routes will be micrositied to avoid or minimize impacts to steep slopes with gradients greater than or equal to 10 degrees, complex habitat, boulders greater than or equal to 0.5 meters in diameter and confirmed MEC/UXO. Detailed supporting data and analysis must be submitted as part of the FDR or FIR, including relevant geophysical and geospatial data; the submission may be incorporated by reference or attachments. The Permittee must not microsite structure locations in a way that narrows any WTG corridors to less than the distance required in this authorization. The Micrositing Plan must include a figure for each micrositied WTG, OSS, or cable segment, including benthic habitat delineations showing complex habitat and locations of boulders greater than or equal to 0.5 meters. For WTGs, OSSs, and cables that cannot be micrositied to avoid impacts to steep slopes with gradients greater than or equal to 10 degrees, complex habitat, or boulders greater than or equal to 0.5 meters in diameter, impact minimization measures must be provided, as technically and/or economically feasible. In any instances where micrositing is not possible due to technical and/or economic infeasibility, the Permittee must provide analysis for review and concurrence by BOEM, the Corps,

and BSEE. The Micrositing Plan must be submitted to BOEM, the Corps, and BSEE with notification to NMFS GARFO HESD for a 60-day review, 120 days prior to site preparation activities for cables, WTGs, and OSSs. If there are fewer than 120 days between activities and this COP approval, the Permittee must submit the plan as soon as practicable and no later than 60 days prior to commencing activities. The Micrositing Plan must be consistent with the MEC/UXO ALARP Certifications and Cable Routings. The Permittee must resolve all comments on the Micrositing Plan to BOEM, the Corps, and BSEE's satisfaction prior to implementation of the plan.

82. Micrositing Report: The Permittee must provide BOEM, BSEE, the Corps, and NMFS with a post-installation Micrositing Report. The report must include a summary of the micrositing activities for WTGs, Inter-array Cables, and the Offshore Export Cable and demonstrate (i.e., figures of as-built locations overlaid on multibeam echosounder backscatter survey data) how impacts to complex habitats and benthic features were avoided and/or minimized within the Lease Area and Offshore Export Cable corridors. The report must also identify and depict (i.e., figures) areas in which WTGs or cables could not be micrositied to avoid complex habitats with a description of the complex habitat sub-types impacted (see prioritized list of complex habitat sub-types listed under the Micrositing Plan) and include documentation of technical feasibility issues encountered. The report must be submitted within 60 days of completion of all WTG and cable installations. The Permittee must also provide BOEM, the Corps, BSEE, and NMFS a shapefile of as-built WTGs, Inter-array Cables, and the Offshore Export Cables, as well as best-available multibeam echosounder backscatter survey data (i.e., as a raster file for use in ArcGIS).
83. Cable Routings: The Permittee must submit the final Cable Burial Risk Assessment (CBRA) package and engineered cable routings for all cable routes on the OCS to the Corps and to BSEE for review and concurrence no later than the submittal of the relevant FDR. The final CBRA package must include a summary of final information on:
- a. natural and man-made hazards;
 - b. sediment mobility, including high and low seabed levels from both mobile and stable seabed, expected over the Project lifetime;
 - c. feasibility and effort level information required to meet burial targets;
 - d. profile drawings of the cable routings illustrating cable burial target depths; and
 - e. minimum burial depths from stable seabed to address threats to the cable including, but not limited to, anchoring risk, military activity, third-party cable crossings, and fishing gear interaction. Detailed supporting data and analysis may be incorporated by reference or attachments, including relevant geospatial data. The Permittee must resolve any BSEE comments on the CBRA to BSEE's satisfaction before BSEE completes its review of the associated FDR under 30 CFR § 285.700.
84. Cable Burial Plan: A detailed cable burial plan, containing the proposed locations and burial depths, must be submitted to the USCG, the Corps, and BSEE for review

no later than the relevant FIR submittal. No later than 90 days post-cable installation of all cable lines on the OCS (export, interconnector, and array), the Permittee must submit to BSEE, the Corps, BOEM, and the USCG a copy of the final as-built cable burial report containing a positioning list that depicts the precise location and burial depths of the entire cable system (export and array lines).

85. Cable Burial: The Permittee must install the export and Inter-array Cables using jetting, vertical injection, control flow excavation, trenching, or plowing, as described in the COP. For the approved COP, BOEM has determined the proper burial depth to be a minimum of 4.9 feet (1.5 meters) below the seabed for Inter-array Cables and for approximately 25 m of cable at the HDD Direct Pipe Punchout, a minimum of 8.2 feet (2.5 meters) for Federal sections of the Offshore Export Cables, and a minimum of 6.6 feet (2 meters) beneath the native substrate with the limits of the Dam Neck Ocean Disposal Site (DNODS). This depth is consistent with the COP and the cable burial performance assessment provide in Appendix W: Preliminary Cable Burial Risk Assessment (CBRA). Unless otherwise authorized by the Corps and BSEE, the Permittee must comply with cable burial conditions described in this authorization and the COP by demonstrating proper burial depth of the installed submarine cables along at least 90 percent of the total Offshore Export Cable length on the OCS and at least 90 percent of the Inter-array Cable routing, excluding cable crossings and approaches to foundations. The Permittee must demonstrate proper burial depth by providing cable monitoring reports and final as-built information.
86. Cable Protection Measures: The Export and Inter-array Cables are expected to be installed using jetting, vertical injection, control flow excavation, trenching, or plowing as described in the approved COP. Cable protection is currently expected where the Offshore Export Cable crosses existing telecommunications cables and at the HDD Direct Pipe Punchout in the event the target burial depth of 1.5 m cannot be achieved using one of the tools noted above. In any areas where it is determined that the Permittee must install secondary protection, such as concrete mattresses, rock bags or rock placement, beyond those areas authorized here within, you must submit a written permit modification request to the Corps for review and approval. The revised project design must adhere to the scour and cable protection measures below. The Permittee must provide BSEE and the Corps with detailed drawings and information of the actual burial depths and locations where protective measures are proposed. The Permittee must also ensure notice of locations where target burial depths were not achieved, including accessible graphic/geo-referenced repository for this information, are made available to the agencies and public.
87. Scour and Cable Protection Plan: The Permittee must prepare and implement a Scour and Cable Protection Plan that includes descriptions and specifications for all scour and cable protection materials use in complex habitat and benthic features. The plan must include a depiction of the location and extent of proposed scour or cable protection, the habitat delineations for the areas of proposed scour and cable protection, detailed information on the proposed scour or cable protection materials for each area and habitat type. Cable protection is currently expected where the

Offshore Export Cable crosses existing telecommunications cables. The Permittee must avoid the use of plastics/recycled polyesters/net material (i.e., fronded mattresses), as technically and/or economically feasible or practicable. The Permittee must ensure that all materials used for scour and cable protection measures consist of natural or engineered stone that does not inhibit epibenthic growth and provides three-dimensional complexity in height and in interstitial spaces, as technically and/or economically feasible or practicable. Cable protection measures should have tapered or sloped edges to reduce hangs for mobile fishing gear. The Permittee must submit the Plan to BOEM, the Corps, and BSEE with notification to NMFS GARFO HESD for a 60-day review at least 120 days before placement of scour and cable protection. Any instances where the Permittee believes there is technical and/or economic infeasibility must be supported by a technical and/or economic feasibility analysis, as appropriate, for review and concurrence by BOEM, the Corps, and BSEE. The Permittee must resolve all comments on the Plan to BOEM, the Corps, and BSEE's satisfaction before placement of the scour and cable protection materials.

88. Post-Installation Cable Monitoring: The Permittee must conduct an inspection of each Inter-array and Offshore Export Cable to determine cable location, burial depths, the state of the cable, and site conditions within 6 months following installation of the export and Inter-array Cables, and additional inspections within 1 year following completion of the initial post-installation inspection and every 3 years thereafter. These inspections must also be conducted within 180 days of a storm event (as defined in the Post-Storm Event Monitoring Plan). The Permittee must provide BSEE, the Corps, and BOEM with a cable monitoring report within 90 days following each inspection. Inspections of the Inter-array and Offshore Export Cables must include high-resolution geophysical (HRG) methods, involving, for example, multibeam bathymetric survey equipment; and must identify seabed features, natural and man-made hazards, and site conditions along Federal sections of the cable routing.
- a. If BSEE or the Corps determines that conditions along the cable corridor warrant adjusting the frequency of inspections (e.g., due to changes in cable burial or seabed conditions that may impact cable stability or other users of the seabed), then BSEE may require the Permittee to submit a revised inspection schedule for review and concurrence.
 - b. If BSEE or the Corps determines that burial conditions have deteriorated or changed significantly and remedial actions are warranted, BSEE or the Corps will notify the Permittee that the Permittee must submit the following within 90 days of being notified: a seabed stability analysis, a remedial action plan, and a schedule for completing remedial actions. All remedial actions must be consistent with the COP. BSEE and the Corps will review the plan and schedule and provide any comments within 60 days of receiving the plan. The Permittee must resolve all comments to BSEE and the Corps' satisfaction.
 - c. If the Permittee determines that burial conditions have deteriorated or changed significantly and remedial actions are warranted, the Permittee must submit the following to BSEE and the Corps within 90 days of making the determination: the

data used to make the determination, a seabed stability analysis, a plan for remedial actions, and a schedule for the proposed work. The Permittee will also provide this remedial plan and schedule to the Corps and NMFS. BSEE and the Corps will review the plan and schedule and provide comments within 60 days, if applicable. The Permittee must resolve all comments to BSEE and the Corps' satisfaction.

89. Structural Integrity Monitoring: The Permittee must conduct annual above-water inspections to ensure structural integrity is maintained. The Permittee must inspect the condition of cathodic protection system(s) and for indications of obvious overloading; deteriorating coating systems; excessive corrosion; and bent, missing, and/or damaged members of the structure in the splash zone and above the water line. The Permittee must provide a summary of the findings in the Annual Self-Inspection Report pursuant to 30 CFR § 285.824(b).
90. Foundation Scour Protection Monitoring: The Permittee must minimize the footprint of scour protection measures at the WTG foundations and must inspect scour protection performance. The Permittee must submit an Inspection Plan to BSEE and the Corps at least 60 days prior to initiating inspection activities described in the Inspection Plan. BSEE will review the Inspection Plan and provide comments, if any, on the plan within 60 days of its submittal. The Permittee must resolve all comments on the Inspection Plan to BSEE's satisfaction and receive concurrence prior to initiating the inspection program. If BSEE does not send comments within 60 days, the Permittee may presume concurrence.
- a. The Permittee must carry out an initial foundation scour inspection within 6 months of completing installation of each foundation location, thereafter at intervals not greater than 5 years, and within 180 days after a storm event (as defined in the Post-Storm Event Monitoring Plan).
 - b. The Permittee must provide BOEM, the Corps, and BSEE with a foundation scour monitoring report within 90 days of completing each foundation scour inspection. If multiple foundation locations are inspected within a single survey effort, the foundation scour monitoring reports for those locations may be combined into a single foundation scour monitoring report provided within 90 days of completing the last foundation scour inspection. The schedule of reporting must be included in the Inspection Plan for BSEE review and concurrence.
 - 1) The Permittee must document any occurrence of invasive lionfish (*Pterois volitans* and *P. miles*) in the foundation scour monitoring report.
 - c. The Permittee must submit a plan for additional monitoring and/or mitigation to the Corps and BSEE for review and concurrence if scour protection losses develop within 10 percent of the maximum loss allowance, edge scour develops within 10 percent of the maximum allowance, or spud depressions from installation affect scour protection stability.
91. Post-Storm Event Monitoring Plan: The Permittee must provide a plan for post-storm event condition monitoring of the facility infrastructure, foundation scour protection,

and cables to the Corps and BSEE for review at least 60 days prior to commencing installation activities. The Permittee must receive BSEE concurrence prior to commencing installation activities. Separate plans may be submitted for the cables (including cable protection), the WTGs, and the OSSs. The plan must describe how the Permittee will measure and monitor environmental conditions and duration of storm events; specify the environmental condition thresholds (and their associated technical justification) above which post-storm event monitoring or mitigation is necessary; describe potential monitoring, mitigation, and damage identification methods; and state when the Permittee must notify the Corps and BSEE of post-storm event-related activities. At a minimum, post-storm event inspections must be conducted following a storm where conditions exceed one-half the design return period. For example, a WTG platform designed for 50-year environmental conditions must be inspected following a storm event with 25-year environmental conditions. BSEE and the Corps reserves the right to require post-storm mitigations to address conditions that could result in safety risks and/or impacts to the environment.

92. Pre-lay Grapnel Run Plan: The Permittee must submit a Pre-lay Grapnel Run Plan for BSEE review and concurrence, and to the Corps for review. The plan must be submitted at least 60 days prior to pre-lay grapnel run activities. BSEE and the Corps will review the plan and provide comments, if applicable, within 60 days of submittal. The Permittee must resolve BSEE and the Corps' comments to BSEE and the Corps' satisfaction. If BSEE and the Corps do not provide comments on the plan within 60 days of its submittal, then the Permittee may presume concurrence with the plan. The plan must be consistent and meet the conditions of the Safety Management System. The plan must include the following:
- a. Figures of the location of pre-lay grapnel run activities.
 - b. A description of pre-lay grapnel run methods, including expected grapnel penetration depth, vessel specifications, metocean limits on operation, etc.
 - c. A description of debris removal and disposal methods and applicable environmental regulations.
 - d. A description of safety distances or zones to limit pre-lay grapnel activities near third-party assets. Descriptions should be consistent with Cable Crossing Agreements.
 - e. The environmental footprint of disturbance activities and measures taken to avoid further adverse impacts to archaeological resources, seafloor hazards, complex habitat, and fishing operations.
 - f. A description of MEC/UXO ALARP certified areas, which must be consistent with MEC/UXO ALARP Certification.
 - g. A summary of any consultation and outreach with resource agencies and the fishing industry in the development of the plan (e.g., notifications to mariners).

The Permittee must submit a letter to BSEE and the Corps outlining any deviations from the Pre-lay Grapnel Run Plan within 90 days following pre-lay grapnel run activities.

93. **Berm Survey and Report:** Where plows, jets, grapnel runs, or other similar methods are used, post-construction surveys capable of detecting bathymetry changes of 0.5 meter or less should be completed to determine the height and width of any created berms. The Permittee must capture bathymetry changes greater than 1 meter (3 feet) along the cable routes. If there are bathymetric changes in berm height greater than 1 meter (3 feet) above grade, the Permittee must develop and implement a Berm Remediation Plan to restore created berms to match adjacent natural bathymetric contours (isobaths), as technically and/or economically feasible. Any instances where the Permittee believes there is technical and/or economic infeasibility must be supported by a technical and/or economic feasibility analysis, as appropriate, for review and concurrence by BOEM, the Corps, and BSEE. The Permittee must submit the Berm Remediation Plan to BOEM and BSEE to coordinate with NMFS for a 60-day review within 90 days of completion of the post-construction survey. BOEM, the Corps, and BSEE will also review the plan to determine if the scope of activities (e.g., methods, disturbance area, vessel trips, emissions) is within the already completed National Environmental Policy Act analysis and ESA and EFH consultations and, if not, will complete additional environmental review and consultations, and to determine if additional permit authorizations are required. The Permittee must resolve all comments on the Berm Remediation Plan to BOEM, the Corps, and BSEE's satisfaction prior to initiating restoration activities.
94. **Spare WTG Locations:** If the Permittee determines that any of the "spare" WTG positions are necessary to be constructed, the Permittee must prioritize the use of spare locations that would have the least impacts on complex habitats and areas to the extent it is technically and/or economically practical or feasible for the Permittee. In any instances where a "spare" WTG will need to be constructed, the Permittee must provide their prioritization analysis of the proposed spare WTG for review and concurrence by the Corps at least 60 days prior to construction of the spare WTG. The prioritization analysis should be developed in accordance with all other plans that are included as special conditions to this permit. The Permittee must resolve the Corps' comments to the Corps' satisfaction before installation of the spare WTG and its associated infrastructure.
95. **Aircraft Detection Lighting System:** The Permittee must use an FAA-approved vendor for the Aircraft Detection Lighting System (ADLS), which will activate the FAA hazard lighting only when an aircraft is in the vicinity of the wind facility to reduce visual impacts at night. The Permittee must confirm the use of and submit to BOEM (via renewable_reporting@boem.gov) and BSEE (via TIMSWeb), the information about the FAA-approved vendor for ADLSs on WTGs and the OSS at the time the relevant FIR is submitted.
96. **Marine Debris Awareness and Elimination:** The Permittee must submit required documents related to marine debris awareness training, reporting, and recovery (e.g., annual training compliance, incident reporting, 24-hour notices, recovery plans, recovery notifications, monthly reporting, annual survey and reporting, and

decommissioning and site clearance) to the Corps and BSEE via TIMSWeb with a notification email sent to marinedebris@bsee.gov.

- a. Marine Debris Awareness Training and Certification: The Permittee must ensure that all vessel operators, employees, and contractors engaged in offshore activities pursuant to the approved COP complete marine debris awareness training initially (i.e., prior to engaging in offshore activities pursuant to the approved COP) and annually. Operators must implement a marine debris awareness training and certification process that ensures that their employees and contractors are adequately trained. The training and certification process must include the following elements: (1) training through viewing of either a marine debris video or training slide pack posted on the BSEE website or by contacting BSEE; (2) an explanation from management personnel that emphasizes their commitment to the requirements; and (3) documented certification that all personnel listed above have completed their initial and annual training. The Permittee must make this certification available to BSEE for inspection upon request.
- b. Training Compliance Report: By January 31 of each year, the Permittee must submit to BSEE an annual report that describes its marine debris awareness training process and certifies that the training process has been followed for the preceding calendar year.
- c. Marking: Any materials, equipment, tools, containers, and other items that are used in open water activities and that are of a shape or configuration likely to snag or damage fishing devices or be lost or discarded overboard, must be clearly marked with the vessel or facility identification number, and must be properly secured to prevent loss overboard. All markings must clearly identify the owner and must be able to resist the effects of the environmental conditions to which they may be exposed.
- d. Recovery: Discarding debris in the marine environment is prohibited. Debris accidentally released by the Permittee into the marine environment while performing any activities associated with the Project must be recovered within 24 hours when the marine debris is likely to (1) cause undue harm or damage to natural resources (e.g., entanglement or ingestion by protected species); or (2) interfere with open water uses (e.g., snagging or damaging fishing equipment, or presenting a hazard to navigation). If the marine debris was lost within the boundaries of an archaeological resource/avoidance area or a sensitive ecological/benthic resource area, the Permittee must contact the Corps and BSEE for concurrence before conducting any recovery efforts. The Permittee must take steps to prevent similar releases of marine debris and must submit a description of these preventative actions to the Corps and BSEE within 30 days from the date on which the release of marine debris occurred.
- e. Notification: The Permittee must notify the Corps and BSEE within 24 hours of any releases of marine debris and indicate whether the released marine debris was immediately recovered. If the marine debris was not recovered, the Permittee must provide its rationale for not recovering the marine debris (e.g., marine debris is located within the boundaries of a sensitive area, recovery was not possible because conditions were unsafe, or recovery was not practicable).

and warranted because the released marine debris is not likely to result in items (1) or (2) listed above).

- f. Remedial Recovery: After reviewing the notification and rationale for any decision by the Permittee to forgo recovery as described above, BSEE and/or the Corps may order the Permittee to recover the marine debris if BSEE and/or the Corps finds that the reasons provided by the Permittee in the notification are insufficient and the marine debris would cause undue harm or damage to natural resources or interfere with open water uses.
 - 1) Recovery Plan: If BSEE or the Corps requires the Permittee to recover the marine debris, the Permittee must submit a Recovery Plan to BSEE and the Corps within 10 days after receiving the Corps or BSEE's order. Unless BSEE and/or the Corps objects within 48 hours after the Recovery Plan has been accepted or is in review status by BSEE in TIMSWeb, the Permittee may proceed with the activities described in the Recovery Plan. Recovery activities must be completed 30 days from the date on which marine debris was released, unless BSEE and/or the Corps grants the Permittee an extension.
 - 2) Recovery Completion Notification: Within 30 days after the marine debris is recovered, the Permittee must provide notification to BSEE and the Corps that recovery was completed and, if applicable, describe any substantial variance from the activities described in the Recovery Plan that was required during the recovery efforts.
- g. Monthly Reporting: The Permit must submit to BSEE a monthly report, no later than the fifth day of the month, of all marine debris lost or discarded during the preceding month, including, if applicable, information related to 48 Hour Reporting and Recovery Plan and the referenced TIMSWeb Submittal ID (SID). The Permittee is not required to submit a report for those months in which no debris was lost or discarded. The monthly report must include the following:
 - 1) Project identification and contact information for the Permittee and for any operators or contractors involved;
 - 2) The date and time of the incident;
 - 3) The lease number, OCS area and block, and coordinates of the object's location (latitude and longitude in decimal degrees);
 - 4) A detailed description of the dropped object, including dimensions (approximate length, width, height, and weight), composition (e.g., plastic, aluminum, steel, wood, or paper), and buoyancy (floats or sinks);
 - 5) Pictures, data imagery, data streams, and/or a schematic or illustration of the object, if available;
 - 6) An indication of whether the lost or discarded object could be detected as a magnetic anomaly of greater than 50 nanoteslas, a seafloor target of greater than 1.6 feet (0.5 meters), or a sub-bottom anomaly of greater than 1.6 feet (0.5 meters) when operating a magnetometer or gradiometer, side scan sonar, or sub-bottom profiler;
 - 7) An explanation of how the object was lost; and
 - 8) A description of immediate recovery efforts and results, including photos.

- h. Annual Surveying and Reporting. Periodic Underwater Surveys, Reporting of Monofilament and Other Fishing Gear Around WTG Foundations: The Permittee must monitor indirect impacts associated with charter and recreational fishing gear lost from expected increases in fishing around WTG foundations by annually surveying at least 10 of the WTGs located closest to shore in the Lease Area. Survey design and effort (i.e., the number of WTGs and frequency of reporting) may be modified only upon concurrence by BOEM, the Corps, and BSEE. The Permittee may conduct surveys by remotely operated vehicles, divers, or other means to determine the frequency and locations of marine debris. The Permittee must report the results of the surveys to BOEM, the Corps, and BSEE in an annual report, submitted by January 31, for the preceding calendar year. Annual reports must be submitted in both Microsoft Word and Adobe PDF format. Photographic and videographic materials (TIFF or Motion JPEG 2000) must be provided with the submittal of the annual report. Photographic and videographic files can also be submitted to marinedebris@bsee.gov if the files cannot be uploaded in TIMSWeb.
- 1) Annual reports must include a summary of the survey reports that includes survey date(s); contact information of the operator; location and pile identification number; photographic and/or video documentation of the survey and debris encountered; any animals sighted; and the disposition of any located debris (i.e., removed or left in place). Annual reports must also include claim data attributable to the Project from the Permittee's corporate gear loss compensation policy and procedures. Required data and reports may be archived, analyzed, published, and disseminated by BOEM and/or BSEE.

DAM NECK OCEAN DISPOSAL SITE (DNODS)

97. The following conditions are specific to authorized activities occurring within the limits of the Dam Neck Ocean Disposal Site (DNODS) which is designated and managed by the U.S. Environmental Protection Agency (EPA) for the placement of dredged material specifically by the Norfolk District and Baltimore District. These conditions are necessary to limit interference with the designated uses of DNODs, to ensure that DNODs remains suitable for its designated uses, and to ensure that EPA remains able to fulfill its regulatory responsibilities at DNODs, including monitoring.

Offshore Export Cables Installation Within DNODS:

- a. You are only authorized to install the nine (9) Offshore Export Cables through DNODS Cells 2 and 5 within a 50-meter-wide corridor.
- b. You must ensure you or your contractor performs all work within DNODS in such a manner to minimize impacts with ongoing federal dredged material placement projects. Your or your contractor's equipment must not obstruct federal contractors' access to DNODS, and any vessels and/or equipment restricting such access must be promptly moved to such an extent as may be necessary to afford safe access to the federal contractors. We recommend you coordinate

directly with these federal contractors to ensure there will be no conflicts with ongoing dredged material placement within DNODS.

- c. You, or your prime contractor, must ensure the Offshore Export Cables installed within DNODS are buried a minimum of 6.6 feet (2 meters) beneath native substrate due to the amount of soft, silty dredge material placed on top of native sediment in this area, to allow for future sampling by EPA for the continued use of the DNODS Cells 2 and 5 for future dredged material placement.
- d. You must a complete one-time pre- and post-construction bathymetric surveys of the proposed project area within DNODS given the extensive disturbance anticipated from installation of the Offshore Export Cables. These surveys must be provided to the Corps and EPA prior to the commencement of work and within 90 days of the completion of authorized work. You may coordinate directly with the Corps regarding the use of previous surveys and/or use of other post-construction surveys, as required by others.
- e. You must conduct a one-time post-construction physical, chemical, and biological monitoring survey to establish a new baseline of conditions following project construction within DNODS Cells 2 and 5. Information regarding testing and reporting protocols can be found in the Evaluation of Dredged Material Proposed for Ocean Disposal Testing Manual ("Green Book," EPA, 1991) and the Southeast Regional Implementation Manual (SERIM, EPA, 2008). The Corps and EPA will work with the Permittee to determine appropriate monitoring objectives, protocols, and timing. A sampling and analysis plan must be developed and submitted to the Corps and EPA for approval prior to the commencement of these surveys.

Munitions and Explosives of Concern/Unexploded Ordnance (MEC/UXO) Within DNODS:

The Permittee has identified MEC/UXOs within DNODS and plans to either microsite to avoid these objects or relocate them as outlined in the final approved MEC/UXO Disposition Plan and MEC/UXO Identification Survey Reports.

- a. You must submit a final MEC/UXO Disposition Plan and MEC/UXO Identification Survey Reports for review by the Corps and EPA prior to the commencement of any work within DNODS. These plans should include, but are not limited to, siting criteria for existing and relocated MEC/UXO, mapping and coordinates (in decimal degrees), identification/classification of MEC/UXO type, and how each MEC/UXO will be monitored once relocated, if required per the BOEM COP.
- b. You must ensure that any MEC/UXO identified within the boundaries of DNODS, which cannot be avoided, are completely removed, and relocated outside of designated boundaries of DNODS. A map shall be provided documenting the relocation area, including coordinates (in decimal degrees), of the new MEC/UXO locations.
- c. If you discover any previously unknown potential MEC/UXO during construction operations, you must immediately notify the Corps. You must coordinate the preferred method of mitigation with the Corps and any other appropriate agencies in consultation with an MEC/UXO specialist as detailed below.

- d. You must provide at least 30 days of advance notice of construction and maintenance activities within DNODS to EPA to avoid impacting required site monitoring efforts undertaken by the agency. All notices should be submitted via email to Ms. Stephanie Jacobs at jacobs.stephanie@epa.gov and copied to Ms. Christina Thomas at thomas.christina@epa.gov and the Norfolk District Section 408 Coordinator at nao.section408@usace.army.mil.

SECTION 408 PERMISSION SPECIAL CONDITIONS:

98. The Norfolk District has completed its review of the request for the Coastal Virginia Offshore Wind (CVOW) Commercial Project to make alterations to the Norfolk Harbor and Channels - Atlantic Ocean Channel (AOC) Federal Navigation Project (federal project), which is operated and maintained by the Norfolk District, under Section 14 of the Rivers and Harbors Act of 1899, 33 U.S.C. 408 (Section 408). This evaluation was performed consistent with Engineer Circular (EC) 1165-2-220, dated 10 September 2018. Section 408 permission has been granted for the alteration of the federal project, subject to these Section 408 project specific special conditions and the EC Appendix K standard terms and conditions, as the project will not impair the usefulness of the federal project, nor harm the public interest.

- a. Minimization of Encroachment/Obstruction on the Federal Navigation Channel: You must ensure that you or your contractor performs all work in such a manner that the any associated offshore cable installation vessels and/or equipment encroaches or obstructs the approach to the federal navigation channel to the minimum extent possible. If the contractor's equipment does obstruct the channel and makes it difficult for or endangers the safe passage of vessels, the equipment must be promptly moved on the approach of any vessels to such an extent as may be necessary to afford a safe passage.
- b. Cable Protection Measures: You must ensure the nine (9) Offshore Export Cables which will cross three separate existing telecommunications (telecom) cables (DUNANT, MAREA, and BRUSA), creating a total of 27 individual cable crossings, are adequately protected to minimize impacts to general navigation. The existing telecom cables are conservatively assumed to be buried within a couple of feet of the seabed along most of the corridor, but the Offshore Export Cables will be laid flush with the seafloor at these crossing locations. The proposed cable crossings will be located approximately 8.5 nautical miles (nm) from the Atlantic Ocean Channel Federal Navigation Project.
 - 1) The final authorized cable protection measures will include two (2) concrete mattresses: one countersunk below each Offshore Export Cable to separate it from the existing telecom cable and one laid over top of the Offshore Export Cable. The bottom mattress will consist of two pieces of tapered edge mattress approximately 6 inches (0.15 m) in height. The top mattress will consist of seven pieces of tapered edge mattress, each measuring approximately 6 inches (0.15 m) in height.
 - 2) The Offshore Export Cables in this cable crossing area will be laid flush with the seafloor; therefore, the mattresses placed on top of the cables must result in a total vertical profile increase of 6 inches (0.15 m) or less. A final survey

report must be provided to demonstrate final post construction elevations did not exceed 6 inches (0.15 m).

- 3) A final Operations and Maintenance Plan must be provided to the Corps which demonstrates your commitment to conduct routine surveys of offshore infrastructure, including the concrete mattresses at each cable crossing location. Concrete mattresses must be surveyed following a major storm event per the Post-Storm Event Monitoring Plan as required in the BOEM COP and all survey reports must be provided to the Norfolk District Regulatory Branch and Section 408 Coordinator.
- c. Munitions and Explosives of Concern/Unexploded Ordnance (MEC/UXO): You must submit a final MEC/UXO Disposition Plan and MEC/UXO Identification Survey Reports for review by the Corps prior to the commencement of cable installation work. These plans should include, but is not limited to, siting criteria for existing and relocated MEC/UXO, mapping and coordinates, identification/classification of MEC/UXO type, and how each MEC/UXO will be monitored once relocated, if required by the BOEM COP.
- d. As-Built Surveys: Within 90 days of completion of work, the final Offshore Export Cables vertical and horizontal locations must be surveyed by a professional engineer or surveyor, licensed in the Commonwealth of Virginia, to verify the final location and to prevent any impacts with future anchoring, dredging, and/or sediment sampling. The survey mapping product shall include as-built plans with profile views and the final top elevations of the nine (9) Offshore Export Cables and cable protection mattresses as measured relative to mean low lower water (MLLW) elevations. A digital copy of the survey shall be provided to Section 408 Coordinator at nao.section408@usace.army.mil, and copied to Michael Anderson, Chief, Design Section, Operations Branch at michael.l.anderson@usace.army.mil and Katy Damico, at katy.r.damico@usace.army.mil.
- e. Section 408 Permission Standard Terms and Conditions: You must adhere to the following Section 408 standard terms and conditions, pursuant to the Section 408 EC 1165-2-220 (10 September 2018), Appendix K. You are responsible for compliance with these standards terms and conditions in addition to all Section 408 special conditions noted above or be subject to potential enforcement action.
- f. SECTION 408 EC 1165-2-220 APPENDIX K TERMS AND CONDITIONS
LIMITS OF THE AUTHORIZATION
 - 1) This permission only authorizes you, the requester, to undertake the activity described herein under the authority provided in Section 14 of the Rivers and Harbors Act of 1899, as amended (33 USC 408). This permission does not obviate the need to obtain other federal, state, or local authorizations required by law. This permission does not grant any property rights or exclusive privileges, and you must have appropriate real estate instruments in place prior to construction and/or installation.
 - 2) The time limit for completing the work authorized ends on the expiration date of this associated Department of the Army (DA) Standard Permit authorization (DA Permit No. NAO-2013-00418). If you find that you need more time to complete the authorized activity, submit your request for a time extension to

this office for consideration at least one month before the above date is reached.

- 3) Without prior written approval of the Corps, you must neither transfer nor assign this permission nor sublet the premises or any part thereof, nor grant any interest, privilege, or license whatsoever in connection with this permission. Failure to comply with this condition will constitute noncompliance for which the permission may be revoked immediately by the Corps.
- 4) The requester understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the work herein authorized, or if, in the opinion of the Secretary of the Army or an authorized representative, said work will cause unreasonable conditions and/or obstruction of the Corps project authorized design, the requester will be required upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim can be made against the United States on account of any such removal or alteration.

INDEMNIFICATION AND HOLD HARMLESS

- 1) The United States will in no case be liable for:
 - a) any damage or injury to the structures or work authorized by this permission that may be caused or result from future operations undertaken by the United States, and no claim or right to compensation will accrue from any damage; or
 - b) damage claims associated with any future modification, suspension, or revocation of this permission.
- 2) The United States will not be responsible for damages or injuries which may arise from or be incident to the construction, maintenance, and use of the project requested by you, nor for damages to the property or injuries to your officers, agents, servants, or employees, or others who may be on your premises or project work areas or the federal project(s) rights-of-way. By accepting this permission, you hereby agree to fully defend, indemnify, and hold harmless the United States and the Corps from any and all such claims, subject to any limitations in law.
- 3) Any damage to the water resources development project or other portions of any federal project(s) resulting from your activities must be repaired at your expense.

REEVALUATION OF PERMISSION

- 1) The determination that the activity authorized by this permission would not impair the usefulness of the federal project and would not be injurious to the public interest was made in reliance on the information you provided.
- 2) This office, at its sole discretion, may reevaluate its decision to issue this permission at any time circumstances warrant, which may result in a determination that it is appropriate or necessary to modify or revoke this permission. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a) you fail to comply with the terms and conditions of this permission;

- b) the information provided in support of your application for permission proves to have been inaccurate or incomplete; or
- c) significant new information surfaces which this office did not consider in reaching the original decision that the activity would not impair the usefulness of the water resources development project and would not be injurious to the public interest.

CONDUCT OF WORK UNDER THIS PERMISSION

- 1) You are responsible for implementing any requirements for mitigation, reasonable and prudent alternatives, or other conditions or requirements imposed as a result of environmental compliance.
- 2) Work/usage allowed under this permission must proceed in a manner that avoids interference with the inspection, operation, and maintenance of the federal project.
- 3) In the event of any deficiency in the design or construction of the requested activity, you are solely responsible for taking remedial action to correct the deficiency.
- 4) The right is reserved to the Corps to enter upon the premises at any time and for any purpose necessary or convenient in connection with government purposes, to make inspections, to operate and/or to make any other use of the lands as may be necessary in connection with government purposes, and you will have no claim for damages on account thereof against the United States or any officer, agent, or employee thereof.
- 5) You must provide copies of pertinent design, construction, and/or usage submittals/documents. Corps may request that survey and photographic documentation of the alteration work and the impacted project area be provided before, during, and after construction and/or installation.
- 6) You may be required to perform an inspection of the federal project with the Corps, prior to your use of the structure, to document existing conditions.
- 7) The Corps shall not be responsible for the technical sufficiency of the alteration design nor for the construction and/or installation work.

Munitions and Explosives of Concern (MEC) and Unexploded Ordnance (UXO)

- 99. Munitions and Explosives of Concern (MEC) and Unexploded Ordnance (UXO): The Permittee has identified MEC/UXOs within the offshore project area and plans to either microsite to avoid these objects or relocate them as outlined in the final approved MEC/UXO Disposition Plan and MEC/UXO Identification Survey Reports. However, if you discover any previously unknown potential MEC/UXO during construction operations, you must immediately notify the Corps. You must coordinate the preferred method of mitigation with the Corps and any other appropriate agencies in consultation with an MEC/UXO specialist as detailed below.
- 100. Munitions and Explosives of Concern (MEC) and Unexploded Ordnances (UXO) Survey Results Implementation: The Permittee must implement the “as low as reasonably practical” (ALARP) risk mitigation principle with the following steps:
 - a. A desktop study (DTS);

- b. An investigation survey to determine the presence of objects;
- c. An identification survey to determine the nature of the identified objects;
- d. MEC/UXO mitigation (avoidance, in situ disposal, or relocation); and
- e. A certification that MEC/UXO risks from installation and operation of the facility have been reduced to ALARP levels. The Permittee must implement the mitigation methods identified in the approved COP, DTS, and the subsequent survey report(s) following the resolution of all comments provided by BOEM and BSEE. As part of the Fabrication and Installation Report (FIR) and prior to commencing installation activities, the Permittee must make available to the approved Certified Verification Agent (CVA), BOEM, the Corps, and BSEE for review the complete and final versions of information on implementation and installation activities associated with the ALARP mitigation process, including the: (1) DTS; (2) investigation surveys to determine the presence of objects; (3) identification surveys to determine the nature of the identified objects; and (4) MEC/UXO relocation, disposition, and/or construction re-routing.

101. MEC/UXO Discovery Notification: In the event of a confirmed MEC/UXO, the Permittee must coordinate with the U.S. Coast Guard (USCG) to ensure the MEC/UXO discovery is published in the next version of the LNM for the specified area and provide the Corps, BOEM, and BSEE a copy of the LNM once it is available. The Permittee must also provide the following information to BOEM (BOEM_MEC_Reporting@boem.gov), BSEE, the Corps, and NMFS within 24 hours of discovery for seabed clearance activities, construction, and operations:
 - a. Narrative describing activities that resulted in the identification of confirmed MEC/UXO;
 - b. Activity at the time of discovery (e.g., survey, seabed clearance, cable installation);
 - c. Location (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM]), Lease Area, and block;
 - d. Water depth (meters);
 - e. MEC/UXO type, dimensions, and weight;
 - f. MEC/UXO vertical position (description of exposure or estimated depth of burial).
102. Munitions Response Plan for Confirmed MEC/UXO: The Permittee must implement methods identified in this permit authorization, the Construction and Operations Plan and described in the MEC/UXO Identification Survey Reports for MEC/UXO mitigation activities. Under all circumstances of confirmed MEC/UXO, the Permittee must demonstrate to BSEE, BOEM, and the Corps, that avoidance through micrositing of planned infrastructure (e.g., wind turbines, OSS, Inter-array Cables, or Offshore Export Cables) of confirmed MEC/UXO is not feasible. For confirmed MEC/UXO where avoidance through micrositing is not feasible, the Permittee must provide a Munitions Response Plan. The Munitions Response Plan must include the following:
 - a. Analysis describing the identification for each confirmed MEC/UXO;
 - b. Hazard analysis of the response;

- c. Type and designation of work vessels, remotely operated vehicles, unmanned surface vehicles, or craft planned to be used in proximity to the MEC/UXO;
- d. Contact information of the identified munitions response contractor;
- e. Contractor qualifications and competencies to safely carry out the response work;
- f. Proposed timeline of activities;
- g. Position of confirmed MEC/UXO and, if applicable, planned relocation position;
- h. Potential impact of weather and sea state on munitions response operations;
- i. Potential for human exposure;
- j. Medical emergency procedures plan;
- k. Protective measures to be implemented to reduce risk and/or monitor effects to protected species and habitats or other ocean users;
- l. Plan for accidental detonation.

103. Munitions Response After Action Report: The Permittee must submit a Munitions Response After Action Report detailing the activity and outcome to BOEM, BSEE, and the Corps. The report must include the following information:

- a. Narrative describing the activities that were undertaken by the Permittee, including the following:
 - 1) As Found Location and, if applicable, As Left Location (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM]), Lease Area, and block;
 - 2) Water depth (meters);
 - 3) Weather and sea state at the time of munitions response;
 - 4) Number and detailed characteristics (e.g., type, size, classification) of MEC items subject to response efforts;
 - 5) Duration of the munitions response activities, including start and stop times.
- b. Summary describing how the Permittee followed its Munitions Response Plan and any deviations from the plan;
- c. Description of safety measures used, including but not limited to the presence of a USCG safety-zone, notices to mariners, other USCG safety actions in place prior to taking any munitions response actions, and how security call protocols were used;
- d. Results of the munitions response;
- e. Description of any threats and effects to health, safety, or the marine environment;
- f. Description of any effects on protected species and marine mammals and measures implemented to reduce risk and monitor effects;
- g. Details and results of any geophysical surveys conducted after the completion of the munitions response activities; and
- h. If applicable, a description of anticipated future munitions response activities.

104. U.S. Committee on Marine Transportation Systems (USCMTS) Guidance: If the USCMTS' proposed "National Guidance for Industry on Responding to Munitions and Explosives of Concern in U.S. Federal Waters" becomes final, that guidance will supplant the MEC/UXO Discovery Notification, the Munitions Response Plan for Confirmed MEC/UXO, and the Munitions Response After Action Report, and the

Permittee shall follow the USCMTS guidance instead and you shall still continue to include the Corps on all correspondence, notifications, and plans regarding MEC/UXO.

POST-CONSTRUCTION

105. Cable Route Inspection and Post-Construction Monitoring: The Permittee must submit a Cable Route Inspection and Post-Construction Monitoring Plan to the Corps review and approval prior to start of construction. This plan shall include a during construction inspection using a multi-beam survey and cable tracking survey (either electromagnetic pulse induction, or tone induction, which via advance signal processing determines accurate range or depth to the cable), coincident with the submerged cable installation to ensure cable burial depth is achieved and inform placement of any secondary cable protection (if necessary). This plan shall also include a post-construction inspection to verify cable burial depth, trench reconstitution, and measure and assess electromagnetic field (EMF) levels along the cable route. The EMF survey shall be used to assess potential effects of EMF on the composition, life cycle functions, uses, process, and activities of fish and wildlife. Within ninety (90) days of the post-construction assessment (even if required by another agency), the results of the EMF survey will be provided to the Corps, BOEM, and NMFS in a public report. If it is determined that there is an adverse impact to the composition, life cycle functions, uses, process, and activities of fish and wildlife, you shall submit a recommendation to address such impact to BOEM, the Corps, and NMFS for review and comment and for approval based on the best available science. Any comments from the Corps and NMFS must be addressed before implementation. All approved recommendations shall be implemented within a reasonable period of time.
106. Long-Term Cable Monitoring Plan: Within six months of the completion of construction, the Permittee must submit a long-term Monitoring and Operations and Maintenance plan for the transmission cables for the Corps' review and approval. This plan shall include details to satisfy at minimum the following actions.
- a. The entire cable route will be resurveyed using a multi-beam survey approach following the first and second years of operation. Criteria for additional cable route surveys following a severe weather event will also be developed and included in the plan.
 - b. The results of the Post-Construction, Year 1 and Year 2 multi-beam cable surveys shall be provided to the BOEM, BSEE, the Corps, and NMFS for review within ninety (90) days of survey completion and include any remedial actions taken or scheduled to occur. If the three consecutive post-construction surveys show that the cable does not pose a hazard to public safety, navigation, or marine resources, additional monitoring survey frequency may be decreased at BOEM, BSEE and the Corps' discretion to every five (5) years thereafter for the operational life of the project. If any survey shows that the cable poses a hazard to public safety, navigation, or marine resources, annual surveys will be performed after corrective action is completed, if required, and until three

consecutive surveys show there is no such risk, after which surveys will return to a 5-year cycle.

107. Exposed Cable: In the event that cable inspection and/or monitoring shows an installed cable has become exposed, the cable presents a risk to other marine users or resources, or is at risk of being damaged, the Permittee shall promptly submit a corrective action report to BOEM, BSEE, the Corps, and NMFS for review and approval before implementing corrective measures. Comments from the Corps and NMFS should be addressed prior to implementing the corrective measures, and a permit modification or additional authorizations may also be required to conduct this work.
108. Within 90 days of completion of cable laying, backfilling, scour protection installation, and UXO/MEC disposition activities, a hydrographic survey, prepared by a state-certified engineer or surveyor, must be provided to the Corps. The hydrographic survey should reference a local tidal or geodetic datum and include State Plane Coordinate System and Lat/Long coordinates for the cable angle points, easement corners/angle points of all secondary cable protections, and an ArcGIS feature class of the installed cables to the Corps. The Permittee shall provide measurements to the Corps with a map(s) of all measurement station locations. Measurement stations shall include cable portions that achieved the target cable burial depth and cable portions that include secondary protection that did not meet target cable burial depths. Secondary cable protection methods shall be identified on said map(s).
109. Upon completion of construction activities and any subsequent maintenance cycles, an as-built plan will be submitted to our office within 60 days of contractor demobilization. The as-built plan will include the location of photograph stations that will serve as the location for future monitoring events.
110. Should you be unable to complete the required surveys or monitoring in the time limit provided, you must submit your request for a time extension to this office for consideration at least 2 weeks prior to the deadline for submittal. This request shall explain the need for additional time, with an estimate of when the remaining work will be completed.
111. Post-construction surveys and as-built plans must conform to the design plans and specifications. Any changes or deviations in the post-construction surveys and as-built plans should be noted and an explanation provided for the deviation.
 - a. For offshore areas, you must provide a Berm Remediation Plan to address any berms that are created as a result of construction activities that exceed three feet above the existing grade. The Permittee is responsible for and must comply with the Performance Standards and monitoring requirements as defined in the Plan. The responsibility can only be transferred if and when the permit is transferred to another party and then only to the new permit recipient.

112. Decommissioning is required at the end of the life of the project and is not authorized by this DA permit. Prior to decommissioning, you must reinstate consultation with our office a minimum of 5 years prior to anticipated decommissioning activities and submit a new Joint Permit Application for review and approval prior to commencing the proposed work.
113. If any project specific condition of this permit cannot be met, then you must apply for a permit modification. Any proposed permit modification will be coordinated with the Virginia Department of Environmental Quality (DEQ), Virginia Marine Resource Commission (VMRC), BOEM, and the EPA Region III, at a minimum.

GENERAL CONDITIONS:

1. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 3 below. Should you wish to cease to maintain the authorized activities, or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
2. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately stop work and notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
3. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
4. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
5. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
6. No discharge of dredged or fill material may consist of unsuitable material (e.g.: trash, debris, car bodies, asphalt etc.) and material discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
7. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

8. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high-water mark or high tide line, must be permanently stabilized at the earliest practicable date.
9. The construction or work authorized by this permit will be conducted in a manner so as to minimize any degradation of water quality and/or damage to aquatic life. Also, you will employ measures to prevent or control spills of fuels or lubricants from entering the waterway.
10. Any heavy equipment working in wetlands other than those permitted for permanent impact must be placed on mats or other measures must be taken to minimize soil disturbance.
11. Failure to comply with the terms and conditions of this permit can result in enforcement actions against the permittee and/or contractor.
12. In granting an authorization pursuant to this permit, the Norfolk District has relied on the information and data provided by the permittee. If, subsequent to notification by the Corps that a project qualifies for this permit, such information and data prove to be materially false or materially incomplete, the authorization may be suspended or revoked, in whole or in part, and/or the Government may institute appropriate legal proceedings.
13. All dredging and/or filling will be done so as to minimize disturbance of the bottom or turbidity increases in the water which tend to degrade water quality and damage aquatic life.
14. Your use of the permitted activity must not interfere with the public's right to reasonable navigation on all navigable waters of the United States.
15. You understand and agree that if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required upon due notice from the Corps of Engineers to remove, relocate, or alter the structural work or obstructions caused thereby without expense to the United States. No claim shall be made against the United States on account of any such removal or alternation.

Further Information:

1. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.

- c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal projects.
2. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
3. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
4. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 3 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.
- Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.
5. Extensions: Project Specific Condition #2 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit. Dredging authorization shall not exceed 10 years (33 CFR 325.6(e)) and further authorization would require a new application.

Your signature below, as a permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



(Permittee)

(Date)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Brian P. Hallberg, PMP
Colonel, U.S. Army
Commanding

(Date)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(Transferee)

(Date)