U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

Conditions of Construction and Operations Plan Approval
Lease Number OCS-A 0483
January 28, 2024

The Bureau of Ocean Energy Management's (BOEM) approval of Dominion Energy's (Lessee or Coastal Virginia Offshore Wind) conduct of activities under the Construction and Operations Plan (COP) for the Coastal Virginia Offshore Wind (CVOW) Commercial Project and the Coastal Virginia Offshore Wind Commercial Export Cable (Project) is subject to the conditions outlined in this document. The Department of the Interior (DOI) reserves the right to amend these conditions or impose additional conditions authorized by law or regulation on any future approvals of COP revisions.

The Lessee must maintain a full copy of these terms and conditions on every Project-related vessel and is responsible for the implementation of, or the failure to implement, each of these terms and conditions by the Lessee's contractors, consultants, operators, or designees.

Section:

1 GENERAL PROVISIONS

1.1 Adherence to the Approved Construction and Operations Plan, Statutes, Regulations, Permits, and Authorizations (Planning) (Construction) (Operations) (Decommissioning).[1] The Lessee must conduct all activities as proposed in its approved COP[2] for the Project, as stated in these terms and conditions, and as described in any final plans with which the BOEM and/or the Bureau of Safety and Environmental Enforcement (BSEE) have concurred. Additionally, the Lessee must comply with all applicable requirements in commercial lease OCS-A 0483 (Lease), statutes, regulations, consultations, and permits and authorizations issued by federal, state, and local agencies for the Project. BOEM and/or BSEE, as applicable, may issue a notice of noncompliance, pursuant to 30 Code of Federal Regulations (C.F.R.) § 585.106(b) and 30 C.F.R. § 285.400(b), if it is determined that the Lessee failed to comply with any provision of its approved COP, the Lease, the Outer Continental Shelf Lands Act (OCSLA), or OCSLA's implementing regulations. BOEM and/or BSEE may also take additional actions pursuant to 30 C.F.R. § 585.106 and 30 C.F.R. § 285.400, where appropriate.

1.1.1 As indicated in the COP and modified by the selected Alternative in the Record of Decision (ROD), the Lessee may construct and install on the Outer Continental Shelf (OCS) up to 176 wind turbine generators (WTGs), up to 3 offshore substations (OSSs), inter-array cables linking the individual WTGs to the OSS, and up to 9 offshore export cables within an export cable corridor of up to 42.5 nautical miles (nmi) in length on the OCS.

1.2 Record of Decision (Planning) (Construction) (Operations) (Decommissioning). All mitigation measures selected in the ROD for this Project are incorporated herein by reference and are considered terms and conditions of this COP. To the extent there is any inconsistency between the language used in the ROD and that found in these terms and conditions, the language in the latter will prevail.

1.3 Effectiveness (Construction) (Operations). This COP approval and these associated terms and conditions become effective on the date BOEM notifies the Lessee that its COP has been approved, and remain effective until the termination of the Lease, which, unless renewed, has an operations term of 33 years from the date of COP approval.

1.4 Consistency with Other Agreements and Authorizations (Planning) (Construction) (Operations) (Decommissioning). In the event that these terms and conditions are, or become, inconsistent with the terms and conditions of the Project's Biological Opinion (BiOp) issued by the National Oceanic and Atmospheric Administration (NOAA)

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[1] Parenthetical indicators of (Planning) (Construction) (Operations) and/or (Decommissioning) at the start of a condition denote the primary development phase(s) to which the condition is relevant. The identification of the primary development phase(s) does not limit BOEM and BSEE's enforcement of these conditions to the identified phase(s).

[2] Dominion Energy. September 2023. Construction and Operations Plan, Coastal Virginia Offshore Wind-Commercial. Volumes I–III.

National Marine Fisheries Service (NMFS) on September 18, 2023;[3] the BiOp issued by the U.S. Fish and Wildlife Service (USFWS) on August 31, 2023;[4] the Incidental Take Authorizations (ITA) issued for the Project under the Marine Mammal Protection Act (MMPA); the Section 106 Memorandum of Agreement (MOA) executed on October 27, 2023, or amendments to any of these documents; the language in the NMFS BiOp, USFWS BiOp, ITAs, Section 106 MOA or amendments to any of these documents, will prevail. To the extent the Lessee identifies inconsistencies within or between the language in the NMFS BiOp, USFWS BiOp, ITAs, Section 106 MOA or amendments to any of these documents, it must direct questions regarding potential inconsistencies to BSEE and BOEM. BSEE, in consultation with BOEM, will determine how the Lessee must proceed. Activities authorized by COP approval will be subject to any terms and conditions and reasonable and prudent measures resulting from a BOEM-reinitiated consultation for the Project's NMFS BiOp or USFWS BiOp, and any stipulations resulting from amendments to the Section 106 MOA.

1.5 Variance Requests (Planning) (Construction) (Operations) (Decommissioning). The Lessee may submit a written request via email to the BOEM Office of Renewable Energy Programs Chief and to BSEE through TIMSWeb (https://timsweb.bsee.gov/), requesting a variance from the requirements of these Terms and Conditions. The request must explain why compliance with a particular requirement is not technically and economically practicable or feasible and any alternative actions the Lessee proposes to take. To the extent not otherwise prohibited by law and after consideration of all relevant facts and applicable legal requirements, BOEM or BSEE, in consultation with the other Bureau, may grant a request for variance if the appropriate Bureau determines that the variance: (1) would not result in a change in the Project impact levels described in the Final Environmental Impact Statement (FEIS) and ROD for the Project, (2) would not alter obligations or commitments resulting from consultations performed by BOEM and BSEE under federal law in connection with this COP approval in a manner that would require BOEM to re-initiate or perform additional consultations (e.g., under the Endangered Species Act (ESA), Coastal Zone Management Act (CZMA), National Historic Preservation Act (NHPA), Magnuson-Stevens Fishery Conservation and Management Act (MSA)); and (3) would not alter BOEM's determination that the activities associated with the Project would be conducted in accordance with section 8(p)(4) of OCSLA. After making a determination regarding a request for a variance, BOEM or BSEE will notify the Lessee in writing whether the appropriate Bureau(s) will allow the proposed variance from the identified requirements set forth in this COP approval. Approvals of variance requests will be

[3] *See* BiOp Letter from Kim Damon-Randall, Director, Office of Protected Resources, US Dept of Commerce National Oceanic and Atmospheric Administration NMFS GARFO, to Karen Baker, Chief Office of Renewable Energy Programs, BOEM. National Marine Fisheries Service Endangered Species Act Section 7 Biological Opinion (September 18, 2023), https://www.boem.gov/renewable-energy/state-activities/nmfs-esa-consultations [hereinafter NMFS BiOp]. This is inclusive of the avoidance, minimization, and mitigation measures described in the proposed action and included in the BiOp's ITS.

[4] *See* BiOp Letter from Cynthia Schultz, Field Supervisor Virginia Field Office, Fish and Wildlife Serv., to David Bigger, BOEM. (August 31, 2023), https://www.boem.gov/renewable-energy/state-activities/fws-esa-consultations [hereinafter BiOp]. This is inclusive of the avoidance, minimization, and mitigation measures described in the proposed action and included in the BiOp's ITS.

made publicly available. This provision applies to the extent it is not inconsistent with more specific provisions in these terms and conditions for variances or departures.

1.6 48-Hour Notification Prior to Construction Activities (Construction) (Operations) (Decommissioning). The Lessee must submit a 48-hour notification to BSEE through TIMSWeb prior to the start of each of the following construction activities occurring on the OCS: seabed preparation activities such as boulder relocation and pre-lay grapnel runs, export cable installation, inter-array cable installation, WTG and OSS foundation installation, WTG tower and nacelle installation, OSS topside installation, and cable and scour protection installation.

1.7 Inspections (Construction) (Operations) (Decommissioning). As provided for in Terms and Conditions Item 10 of the NMFS BiOp, the Lessee must consent to on-site observations and inspections by federal agency personnel, including NOAA personnel, during activities described in the NMFS BiOp, for the purposes of evaluating the effectiveness and implementation of measures designed to minimize or monitor incidental take.

1.8 Project Website (Planning) (Construction) (Operations) (Decommissioning). The Lessee must develop and maintain a Project website to provide a means for the public to communicate with the Lessee about the Project, including fisheries communication and outreach. The website must provide a method for the public to register comments or ask questions through either a direct link to a comment form or email, or by providing the contact information (phone and/or email address) of a Lessee representative who will, as practicable, respond to these communications.

1.8.1 The Lessee must post construction notices and other publicly relevant information to the Project website on a monthly basis. The Project website must allow users to subscribe (or unsubscribe) to an electronic mailing list for Project update notifications.

1.8.2 The Lessee must post the following information to the Project website within 5 business days of availability.

1.8.2.1 Locations where target burial depths were not achieved and locations of cable protection measures.

1.8.2.2 Project-specific information found in the most current Local Notices to Mariners (LNM).

1.8.2.3 The Fisheries Communications Plan (COP Appendix V-1).

1.8.2.4 The Project Mitigation Report identified in Section 1.9. The Project Mitigation Report must be submitted to BOEM (renewable_reporting@boem.gov) and BSEE via TIMSWeb for a 30-day review prior to being finalized.

1.8.3 Geographic information system (GIS) location data must be downloadable from the Project website and packaged in an ESRI-compatible format, preferably an ESRI shapefile. Files must use a NAD83 UTM Zone 18 or a geographic coordinate system in NAD83. A text file with table field descriptions that contain measurement units, where applicable, must be included.

1.9 Project Mitigation Report (Planning) (Construction) (Operations) (Decommissioning). The Lessee must develop a Project Mitigation Report that reflects public engagement and consultation concerning environmental mitigation measures completed to date with the appropriate Tribal Nations, federal and state agencies, and regional and non-governmental organizations. The Project Mitigation Report will be a comprehensive compilation of all environmental mitigation measures or commitments required by the terms and conditions of COP approval, as well as other federal and state authorizations and consultations (e.g., ESA, CZMA, MOA, Clean Water Act, Rivers and Harbors Act) required for the construction and operation of the Project. The Project Mitigation Report must (1) describe and provide technical details for each mitigation measure (including the type of Project impact to which it relates and the consultation, authorization, or conditions under which it is required) and (2) identify procedures to evaluate additional or modified measures that respond to impacts detected in Project monitoring and other monitoring and research studies and initiatives, including the Lessee's Fisheries Mitigation and Monitoring Plan. The Lessee must update the Project Mitigation Report periodically, as described in such Report, for status and completion of mitigation measures.

1.10 Submissions (Planning) (Construction) (Operations) (Decommissioning). Unless otherwise stated, the Lessee must provide any submissions required under these conditions to stated agencies through the following:

1.10.1 BOEM[5] and/or BSEE:

1.10.1.1 Via email to the Office of Renewable Energy Programs Project Coordinator for submissions to BOEM for Sections 1 through 4,

1.10.1.2 Via email to renewable_reporting@boem.gov for submissions to BOEM for Sections 5 through 8, and

1.10.1.3 TIMSWeb for submissions to BSEE.

1.10.2 National Marine Fisheries Service (NMFS):

1.10.2.1 NMFS Greater Atlantic Regional Fisheries Office Protected Resources Division (GARFO-PRD) at nmfs.gar.incidental-take@noaa.gov

[5] BOEM will notify the Lessee in writing if BOEM designates a different process for BOEM submissions.

1.10.2.2 NMFS Office of Protected Resources (NMFS-OPR) at PR.ITP.MonitoringReports@noaa.gov

1.10.2.3 NMFS GARFO Habitat and Ecosystem Services Division (GARFO-HESD) at NMFS.GAR.HESDoffshorewind@noaa.gov

1.10.2.4 NMFS Northeast Fisheries Science Center (NEFSC) at nefsc.survey.mitig@noaa.gov

1.11 Calendar Days (Planning) (Construction) (Operations) (Decommissioning). Unless otherwise specified in the terms and conditions, the term "days" means "calendar days".

2 TECHNICAL CONDITIONS

2.1 Geologic and Geophysical Data (Planning) (Construction) (Operations) (Decommissioning). The Lessee must retain all data from geological, geophysical, and geotechnical surveys used to assess shallow hazards, geologic conditions, and geotechnical characteristics, as well as archaeological, biological, and benthic assessments, and overall site investigation results (pursuant to 30 C.F.R. § 585.626). Any data and information obtained from site characterization activities must be accessible to BOEM and BSEE upon request, for the duration of the Lease.

2.2 Munitions and Explosives of Concern/Unexploded Ordnance Investigation (Planning). The Lessee must investigate the areas of potential disturbance for the presence of Munitions and Explosives of Concern (MEC)/Unexploded Ordnance (UXO) and evaluate the risk consistent with the As Low as Reasonably Practical (ALARP) risk mitigation principle. The ALARP risk mitigation principle requires (1) a desktop study (DTS); (2) an investigation survey to determine the presence of objects and report findings (ALARP Level 1 Certification); (3) an identification survey to determine the nature of the identified objects and report of findings (ALARP Level 2 Certification); (4) MEC/UXO mitigation (avoidance or relocation); and (5) a certification that MEC/UXO risks from installation and operation of the facility have been reduced to ALARP levels (ALARP Level 3 Certification). The Lessee must implement the mitigation methods identified in the approved COP, the DTS, and the subsequent survey report(s) following the resolution of all comments provided by BOEM and/or BSEE. In the event archaeological discoveries are made during the MEC/UXO Investigation, the Lessee must notify BOEM within 24 hours of discovery (pursuant to 30 C.F.R. § 585.702 and Lease Stipulation 4.2.7). As part of the Fabrication and Installation Report (FIR) and prior to commencing seabed preparation activities such as pre-lay grapnel run and boulder relocation and installation activities, the Lessee must make available for review to the approved Certified Verification Agent (CVA), BOEM, and BSEE, 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 mitigation measure(s), and/or construction re-routing.

2.3 MEC/UXO Identification Survey Report (Planning). The Lessee must submit an Identification Survey Report to BOEM and BSEE for each Bureau's review and concurrence prior to the installation of facilities in the areas of potential disturbance. The report must include the following:

2.3.1 A detailed discussion of methodologies.

2.3.2 A summary and detailed description of the findings and information on all mitigations necessary for MEC/UXO risks to reach ALARP levels, such as detailed information on MEC/UXO relocation activities, micrositing of facilities, changes to installation or operational activities, and cable re-routings.

2.3.3 A separate list of findings that identify conditions different from those anticipated and discussed in the DTS.

2.3.4 A statement attesting that the installation methods and MEC/UXO mitigation strategies discussed in the FIR, DTS, and/or Investigation Survey Report are consistent with the results of the Identification Survey Report, accepted engineering practices, and applicable best management practices. Alternatively, the Lessee may submit a detailed discussion of alternative installation methods and/or MEC/UXO mitigation strategies that the Lessee has determined to be appropriate given the results of the Identification Survey, accepted engineering practices, and applicable best management practices.

2.4 MEC/UXO ALARP Certification (Planning). The Lessee must provide to BOEM, BSEE, and the approved CVA, a certification confirming that MEC/UXO risks related to the installation and operation of the facility have been reduced to ALARP levels. The certification must be made by a qualified third party. The ALARP Level 2 Certification must be made available with the submission of the Micrositing Plan (Section 5.9.3) and the Facility Design Report (FDR). The ALARP Level 3 Certification must be made available prior to or with seabed preparation plans, such as Pre-lay Grapnel Run Plan (Section 2.25), and Boulder Identification and Relocation Plan (Section 2.26), or with the submission of the FIR, whichever occurs first.

2.5 MEC/UXO Discovery Notification (Construction) (Operations) (Decommissioning). In the event of a confirmed MEC/UXO, the Lessee must coordinate with the U.S. Coast Guard (USCG) to ensure the MEC/UXO discovery is published in the next version of the Local Notice to Mariners (LNM) for the specified area and provide BOEM and BSEE a copy of the LNM once it is available. The Lessee must also provide the following information to BOEM (BOEM_MEC_Reporting@boem.gov), BSEE (env-compliance-arc@bsee.gov), and relevant agency representatives within 24 hours of any such discovery made during activities, such as seabed clearance, construction, and operations:

2.5.1 Narrative describing activities that resulted in the identification of confirmed MEC/UXO.

2.5.2 Activity at the time of discovery (e.g., survey, seabed clearance, cable installation).

2.5.3 Location (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM]), lease area, and block.

2.5.4 Water depth (meters (m)).

2.5.5 MEC/UXO type, dimensions, and weight.

2.5.6 MEC/UXO vertical position (description of exposure or estimated depth of burial).

2.6 Munitions Response Plan for Confirmed MEC/UXO (Planning) (Construction). The Lessee must implement methods identified in the approved COP and as described in the MEC/UXO Survey Reports Implementation (as referenced in Section 2.3) for MEC/UXO mitigation activities. Under all circumstances of confirmed MEC/UXO, the Lessee must demonstrate to BSEE and BOEM that avoidance through micrositing of planned infrastructure (e.g., wind turbines, offshore substations, inter-array cables, or export cables) of confirmed MEC/UXO is not feasible. For confirmed MEC/UXO on the OCS where avoidance through micrositing is not feasible, the Lessee must provide a Munitions Response Plan. In the event MEC/UXO relocation may exceed 50m from original location, as identified in Section 3.4.1.2 of the COP, the Lessee may submit a Variance Request (Section 1.5) to relocate MEC/UXO greater distances. The Munitions Response Plan must include the following:

2.6.1 Analysis describing the identification for each confirmed MEC/UXO;

2.6.2 Hazard analysis of the response;

2.6.3 Type and designation of work vessels, remotely operated vehicles, unmanned surface vehicles, or craft planned to be used in proximity to the MEC/UXO;

2.6.4 Contact information of the identified munitions response contractor;

2.6.5 Contractor qualifications and competencies to safely carry out the response work;

2.6.6 Proposed timeline of activities;

2.6.7 Position of confirmed MEC/UXO and, if applicable, planned relocation position (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM])

2.6.8 Potential impact of weather and sea state on munitions response operations;

2.6.9 Potential for human exposure;

2.6.10 Medical emergency procedures plan;

2.6.11 Protective measures to be implemented to reduce risk and/or monitor effects to protected species and habitats or other ocean users;

2.6.12 Plan for accidental detonation.

2.7 Munitions Response After Action Report (Planning). The Lessee must submit a Munitions Response After Action Report detailing the activity and outcome to BOEM and BSEE. The report must include the following information:

2.7.1 Narrative describing the activities that were undertaken by the Lessee, including the following:

2.7.1.1 As Found Location and, if applicable, As Left Location (latitude [DDD°MM.MMM'], longitude [DDD°MM.MMM]), lease area, and block;

2.7.1.2 Water depth (m);

2.7.1.3 Weather and sea state at the time of munitions response;

2.7.1.4 Number and detailed characteristics (e.g., type, size, classification) of MEC items subject to response efforts;

2.7.1.5 Duration of the munitions response activities, including start and stop times;

2.7.2 Summary describing how the Lessee followed its Munitions Response Plan and any deviations from the plan;

2.7.3 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;

2.7.4 Results of the munitions response;

2.7.5 Description of any threats and effects to health, safety, or the marine environment;

2.7.6 Description of any effects on protected species and marine mammals and measures implemented to reduce risk and monitor effects;

2.7.7 Details and results of any geophysical surveys conducted after the completion of the munitions response activities;

2.7.8 If applicable, a description of anticipated future munitions response activities.

2.8 Safety Management System (Planning) (Construction) (Operations) (Decommissioning). Pursuant to 30 C.F.R. § 285.810, the Lessee, designated operator,

contractor, or subcontractor constructing, operating, or decommissioning renewable energy facilities on the OCS must have a Safety Management System (SMS) that will guide all activities described in the approved COP (hereafter the "Lease Area's Primary SMS"). The Lessee will submit its Lease Area's Primary SMS to BSEE within 30 days of COP approval. BSEE will review the Lease Area's Primary SMS and compare it to the regulations and requirements below (Sections 2.8.1 through 2.8.4) and verify whether it is acceptable.

2.8.1 The Lease Area's Primary SMS must identify and assess risks to health, safety, and the environment associated with the offshore wind facilities and operations and must include an overview of the methods that will be used and maintained to control the identified risks.

2.8.2 Pursuant to 30 C.F.R. § 285.811, the Lease Area's Primary SMS must be functional when the Lessee begins activities described in the approved COP. The Lessee must provide to BSEE a description of any changes to the Lease Area's Primary SMS to address new or increased risk before each phase of the Project commences (i.e., construction, operation, maintenance, decommissioning). In addition, the Lessee must demonstrate, to BSEE's satisfaction, the functionality of the Lease Area's Primary SMS by providing evidence of such functionality no later than 30 days prior to beginning the relevant activities described in the COP.

2.8.3 The Lessee must conduct periodic Lease Area Primary SMS audits and provide BSEE with a report summarizing the results of the most recent audit at least once every 3 years, and upon BSEE's request. The report must include any corrective actions implemented or being implemented as a result of that audit, and an updated description of the Lease Area's Primary SMS highlighting changes that were made since the last such submission to BSEE. Following BSEE's review of the report, the Lessee must engage with and respond to BSEE until any questions or concerns BSEE has are resolved and BSEE is satisfied that the Lease Area Primary SMS is effective and functional.

2.8.4 In addition to maintaining an acceptable Lease Area's Primary SMS, the Lessee, designated operator, contractor, and subcontractor(s) constructing, operating, or decommissioning renewable energy facilities on the OCS are required to follow the policies and procedures of any other SMS(s) applicable to their contracted activities and to take corrective action whenever there is a failure to follow the relevant SMS(s), or where the relevant SMS(s) failed to ensure safety.

2.9 Emergency Response Procedure (Planning) (Construction) (Operations) (Decommissioning). Prior to the construction of the Project, the Lessee must submit an Emergency Response Procedure to address non-routine events for review and concurrence by BSEE. The Lessee must submit any revisions to the procedure once every 3 years and upon BSEE's request, consistent with Section 2.8.3. The Emergency Response Procedure must address the following:

2.9.1 Standard Operating Procedures. The Lessee 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 man-made or natural. The Lessee must include, as a part of the standard operating procedures for non-routine conditions, descriptions of high-consequence and low-probability events and methods to address those 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.

2.9.2 Communications. The Lessee must describe the capabilities of the Monitoring and Coordination Center (MCC) to communicate with the USCG as outlined in Appendix A Safety Management System of the COP.

2.9.3 Monitoring. The Lessee must ensure that the MCC maintains the capability to monitor (e.g., using cameras) the Lessee's installation and operations in real-time, including at night and in periods of poor visibility.

2.10 Oil Spill Response Plan (Planning). Pursuant to 30 C.F.R. § 585.627(c), the Lessee must submit an Oil Spill Response Plan (OSRP) to the BSEE Oil Spill Preparedness Division (OSPD) at BSEEOSPD_ATL_OSRPs@bsee.gov for review and approval prior to the installation of any component that may handle or store oil on the OCS. The OSRP may be lease-specific, or it may be a regional OSRP covering multiple leases. Facilities and leases covered in a regional OSRP must have the same owner or operator (including affiliates) and must be located in the Atlantic OCS region. For a regional OSRP, subject to BSEE OSPD approval, the Lessee may group leases into sub-regions for the purposes of determining worst-case discharge (WCD) scenarios, conducting stochastic trajectory analyses, and identifying response resources. The Lessee's OSRP must be consistent with the National Contingency Plan, Regional Contingency Plan, and the appropriate Area Contingency Plan(s), as defined in 30 C.F.R. § 254.6. To continue operating, the Lessee must operate consistent with the OSRP approved by BSEE. The Lessee's OSRP, including any regional OSRP, must contain the following information:

2.10.1 Bookmarks. Appropriately labeled bookmarks that are linked to their corresponding sections of the OSRP.

2.10.2 Table of Contents.

2.10.3 Record of Change. A table identifying the changes made to the current version of the OSRP and, as applicable, a record of changes made to previously submitted versions of the OSRP.

2.10.4 Facility and Oil Information. "Facility", as defined in 30 C.F.R. § 585.113, means an installation that is permanently or temporarily attached to the seabed of the OCS. An OSS and WTG, as examples, each meet this definition of facility. "Oil," as defined in 33 U.S.C. 1321(a), means oils of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Dielectric fluid, as an example, meets this definition of oil. The OSRP must:

2.10.4.1 List the latitude and longitude, water depth, and distance to the nearest shoreline for each facility that may handle and/or store oil.

2.10.4.2 List the oil(s) by product/brand name and corresponding volume(s) on each type of facility covered under the Lessee's OSRP.

2.10.4.3 Include a map depicting the location of each facility that may handle and/or store oil within the boundaries of the covered lease area(s) and their proximity to the nearest shoreline. The map must also feature a compass rose, scale, and legend.

2.10.5 Safety Data Sheets. The OSRP must include a safety data sheet for every type of oil present on any OCS facility in quantities equal to or greater than 100 gallons.

2.10.6 Response Organization. The OSRP must identify a trained Qualified Individual (QI), and at least one alternate, with full authority to implement removal actions and ensure immediate notification of appropriate Federal officials and response personnel. The Lessee must designate personnel to serve as trained members of an Incident Management Team (IMT) and identify them by name and Incident Command System (ICS) position in the OSRP.

2.10.6.1 "Qualified Individual" means an English-speaking representative of the Lessee who is located in the United States, available on a 24-hour basis, and given full authority to obligate funds, carry out removal actions, and communicate with the appropriate Federal officials and the persons providing personnel and equipment in removal operations.

2.10.6.2 "Incident Management Team" (IMT) means the group of personnel identified within the Lessee's organizational structure who manage the overall response to an incident in accordance with the Lessee's OSRP. The IMT consists of the Incident Commander (IC), Command and General Staff, and other personnel assigned to key ICS positions designated in the Lessee's OSRP. With respect to the IMT, the Lessee must identify at least one alternate in the OSRP as the IC, Planning Section Chief (PSC), Operations Section Chief (OSC), Logistics Section Chief (LSC), and Finance Section Chief (FSC). If a contract has been established with a third-party IMT, the Lessee must provide evidence of such a contract in the OSRP.

2.10.7 Notification Procedures. The OSRP must describe the procedures for spill notification. Notification procedures must include the 24-hour contact information for:

2.10.7.1 The QI and an alternate, including phone numbers and email addresses;

2.10.7.2 IMT members, including phone numbers and email addresses;

2.10.7.3 Federal, state, and local regulatory agencies that must be notified when a spill occurs, including, but not limited to, the National Response Center;

2.10.7.4 The Oil Spill Removal Organizations (OSRO) and Spill Response Operating Teams (SROT) that are available to respond; and

2.10.7.5 Other response organizations and subject matter experts that the Lessee will rely on for the Lessee's response.

2.10.8 Spill Mitigation Procedures. The OSRP must describe the different discharge scenarios that could occur from the Lessee's facilities and the mitigation procedures by which the offshore facility operator and any listed/contracted OSROs would follow when responding to such discharges. The mitigation procedures must address responding to both smaller spills (with slow, low-volume leakage) and larger spills, to include the largest WCD scenario covered under the Lessee's OSRP. To achieve compliance with this section, the OSRP must include the following:

2.10.8.1 Procedures for the early detection of a spill (i.e., monitoring procedures for detecting dielectric fluid and other oil-based substances handled or stored on the facility when spilled to the ocean).

2.10.8.2 General procedures for ensuring that the source of a discharge is controlled as soon as possible after a spill occurs.

2.10.8.3 Procedures to remove oil and oiled debris from the water surface and along shorelines.

2.10.8.4 Procedures to store, transfer, and dispose of recovered oil and oil-contaminated materials and to ensure that all disposal is in accordance with federal, state, and local requirements.

2.10.9 Resources at Risk. The OSRP must include a concise list of the sensitive resources that could be impacted by a spill. In lieu of listing sensitive resources, the Lessee may identify the areas that could be impacted by a spill from the Lessee's facility and provide hyperlinks to corresponding Environmentally Sensitive Index Maps and Geographic Response Strategies/Plans for those areas from the appropriate Area Contingency Plan(s).

2.10.10 OSRO(s) and SROT(s). The "Oil Spill Removal Organization" is an entity contracted by the Lessee to provide spill response equipment and/or manpower in the event of an oil spill. The "Spill Response Operating Team" is the trained persons who deploy and operate oil spill response equipment in the event of a spill, threat of a spill, or an exercise. The OSRP must include a list (with contact information) of the OSRO(s) and SROT(s) who are under contract and/or membership agreement to respond to the WCD of oil from the Lessee's offshore facilities. Evidence of such contracts and/or membership agreements must be provided in the OSRP.

2.10.11 Oil Spill Response Equipment. The OSRP must include a list, or a hyperlink to a list, of the oil spill response equipment that is available to the Lessee through a contract and/or membership agreement with the OSRO(s). The OSRP must include a map that shows the oil spill response equipment storage depot(s) and planned/potential staging area(s) for the oil spill response equipment that would be deployed by the facility operators or the OSRO(s) listed in the plan in the event of a discharge.

2.10.11.1 The Lessee must ensure that the oil spill response equipment is maintained in proper operating condition.

2.10.11.2 The Lessee must ensure that all oil spill response equipment maintenance, modification, and repair records are kept for a minimum of 3 years.

2.10.11.3 The Lessee must provide oil spill response equipment maintenance, modification, and repair records to BSEE OSPD upon request.

2.10.11.4 The Lessee or the OSRO must provide BSEE OSPD with physical access to the oil spill equipment storage depots and perform functional testing of the equipment upon request.

2.10.11.5 BSEE OSPD may require maintenance, modifications, or repairs to oil spill response equipment or require the Lessee to remove response equipment from being listed in the OSRP if it does not operate as intended.

2.10.12 Training. The OSRP must include a description of the training necessary to ensure that the QI, IMT, OSRO(s), and SROT(s) are sufficiently trained to perform their respective duties. The Lessee must ensure that the IMT, OSRO(s), and SROT(s) receive annual training. The Lessee's OSRP must provide the most recent dates of applicable training(s) completed by the QI, IMT, OSRO(s), and SROT(s). The Lessee must maintain and retain training records for three years and must provide the training records to BSEE upon request.

2.10.13 Worst-Case Discharge Scenario. The OSRP must describe the WCD scenario for the facility containing the highest cumulative volume of oil(s). For a

regional OSRP covering multiple sub-regions, a WCD scenario must be described for each sub-region.

2.10.13.1 If multiple candidate WCD facilities contain the same cumulative volume of oil(s), the WCD facility is the one closest to shore.

2.10.13.2 The WCD facility must be identified on the facility map consistent with the "Facility and Oil Information" Section 2.10.4.

2.10.13.3 The OSRP must identify the subset of oil spill response equipment from the inventory listed in the OSRP that will be used to contain and recover the WCD volume. The OSRP must include timeframes for response resources to deploy to the WCD facility. Timeframes must include times for equipment procurement, loadout, travel, and deployment.

2.10.14 Stochastic Trajectory Analysis. The OSRP must include a stochastic spill trajectory analysis for the WCD facility. For a regional OSRP containing multiple WCD scenarios, a stochastic trajectory analysis must be included for each WCD scenario. The stochastic trajectory analysis must:

2.10.14.1 Be based on the WCD volume.

2.10.14.2 Be conducted for the longest period that the discharged oil would reasonably be expected to persist on the water's surface, or 14 days, whichever is shorter.

2.10.14.3 Identify the probabilities for oiling on the water's surface and on shorelines and the minimum travel times for the transport of the oil over the duration of the model simulation. Oiling probabilities and minimum travel times must be calculated for exposure threshold concentrations reaching 10 grams per m^2. The stochastic analysis must incorporate a minimum of 100 different trajectory simulations using random start dates selected over a multi-year period.

2.10.15 Response Plan Exercise. The OSRP must include a triennial exercise plan for review and concurrence by BSEE to ensure that the Lessee is able to respond quickly and effectively whenever oil is discharged from the Lessee's facilities. Compliance with the National Preparedness for Response Exercise Program guidelines will satisfy the exercise requirements of this section. If the Lessee chooses to follow an alternative exercise program, the OSRP must provide a description of that program. For a regional OSRP covering multiple sub-regions, the IMT exercise scenarios must be rotated between each sub-region within the triennial exercise period.

2.10.15.1 The Lessee must conduct an annual scenario-based notification exercise, an annual scenario-based IMT tabletop exercise, and, during the triennial exercise period, at least one functional IMT exercise.

2.10.15.2 The Lessee must conduct an annual oil spill response equipment deployment exercise.

2.10.15.3 The Lessee must notify BSEE OSPD at least 30 days in advance of any exercise it intends to conduct for compliance with this condition.

2.10.15.4 BSEE will advise the Lessee about the options it has to satisfy these requirements and may require changes in the type, frequency, or location of the required exercises, exercise objectives, equipment to be deployed and operated, or deployment procedures or strategies.

2.10.15.5 BSEE may evaluate the results of the exercises and advise the Lessee of any needed changes in response equipment, procedures, tactics, or strategies.

2.10.15.6 BSEE may periodically initiate unannounced exercises to test the Lessee's spill preparedness and response capabilities.

2.10.15.7 The Lessee must maintain and retain exercise records for at least three years and must provide the exercise records to BSEE upon request.

2.10.16 OSRP Review and Update. The Lessee must review and update the OSRP at least once every 3 years and more frequently as needed, starting from the date the OSRP was initially approved. The Lessee must send a written notification to BSEE OSPD upon completion of this review and submit any updates for concurrence. BSEE OSPD may require the Lessee to make changes to the OSRP at any time if it is determined to be outdated or to contain significant inadequacies as discovered through a review of the Lessee's OSRP, information obtained during exercises or actual spill responses, or other relevant information obtained by BSEE OSPD.

2.10.17 OSRP Maintenance. The Lessee must submit a revised OSRP to BSEE OSPD within 15 days if any of the following conditions occur:

2.10.17.1 The Lessee experiences a change that would significantly reduce their oil spill response capabilities.

2.10.17.2 The calculated WCD volume has significantly increased.

2.10.17.3 The Lessee removes a contracted IMT, OSRO, or SROT from the Lessee's plan.

2.10.17.4 There has been a significant change to the applicable area contingency plan(s).

2.11 Cable Routings (Planning). The Lessee must submit the final Cable Burial Risk Assessment (CBRA) package and engineered cable routings for all cable routes on the

OCS 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 (1) natural and man-made hazards; (2) sediment mobility, including high and low seabed levels, from both mobile and stable seabed, expected over the Project lifetime; (3) feasibility and effort level information required to meet burial targets; (4) profile drawings of the cable routings illustrating cable burial target depths, and (5) 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 Lessee must resolve any BSEE comments on the CBRA to BSEE's satisfaction before BSEE completes its review of the relevant FDR under 30 C.F.R. § 285.700.

2.12 Cable Burial (Planning) (Construction) (Operations). The Lessee must install the export and inter-array cables using jetting, vertical injection, control flow excavation, trenching, or plowing, as described in Section 3.4.1.2 and 3.4.1.4 of the approved COP. For the approved COP, BOEM has determined the proper burial depth to be a minimum of 4.9 feet (1.5 m) below the seabed for inter-array cables and a minimum of 8.2 feet (2.5 m) for federal sections of the export cables. This depth is consistent with the approved COP and the cable burial performance assessment provided in Appendix W: Preliminary Cable Burial Risk Assessment. Unless otherwise authorized by BSEE, the Lessee must comply with cable burial conditions described in the COP by demonstrating proper burial depth of the installed submarine cables along at least 90 percent of the total 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 Lessee must demonstrate proper burial depth by providing cable monitoring reports (Section 2.15) and final, as-built information (Section 2.22).

2.13 Cable Protection Measures (Planning) (Construction) (Operations). The export and inter-array cables must be installed using jetting, vertical injection, control flow excavation, trenching, or plowing as described in Section 3.4.1.2 and 3.4.1.4 of the approved COP. In areas where the final cable burial depth is less than 1.5 m below seabed, excluding cable crossings within the vicinity of WTG/OSS foundations where cables are enclosed within a cable protection system, the Lessee must install secondary protection such as concrete mattresses, rock bags, or rock placement and must adhere to the scour and cable protection measures in Section 5.9.4.

2.13.1 The use of cable protection measures must not exceed 10 percent of the total export cable length on the OCS or 10 percent of the inter-array cable routing, excluding cable crossings and approaches to foundations. The Lessee must employ cable protection measures when proper burial depth, as defined in Section 2.12, is not achieved. The Lessee must include design information and drawings as part of the relevant FDR and must include installation information as a part of the relevant FIR. The Lessee must also provide BSEE with detailed drawings/information of the actual burial depths and locations where protective measures were used, no later than when the final, as-built cable drawings are submitted. The Lessee must post on the project website (Section 1.8, Project

Website) notice of locations where target burial depths were not achieved and where cable protection measures were used, including an accessible graphic/geo-referenced repository.

2.13.2 If the Lessee cannot comply with the requirements in Section 2.13.1, the Lessee must request a variance under Section 1.5. As a component of its request, the Lessee must provide BSEE information explaining the proposed alternatives (including a justification of the equivalent level of protection, and CVA verification of the proposed alternative) and must resolve any BSEE comments.

2.14 Crossing Agreements (Planning). The Lessee must provide final cable crossing agreements for each active, in-service submarine cable or other types of in-use infrastructure, such as pipelines, to BOEM at least 60 days before seabed preparation activities, including boulder clearance. The Lessee must make the agreements and crossing designs available to the CVA for review unless otherwise determined by BOEM.

2.14.1 If the Lessee concludes that it will be unable to reach a cable crossing agreement, the Lessee must inform BOEM as soon as possible, and no later than 60 days before seabed preparation activities, including boulder clearance. A cable crossing agreement will not be required if BOEM has determined—at its sole discretion and based on its review of the record of relevant communications from the Lessee to owners or operators of active, in-service submarine cables or other types of in-use infrastructure—that the Lessee made reasonable efforts to enter an agreement and was unable to do so. Information to support a claim of reasonable efforts may include call logs, emails, letters, or other methods of communication.

2.15 Post-Installation Cable Monitoring (Construction) (Operations). The Lessee must conduct an inspection of each inter-array and 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, described in Section 2.19). The Lessee must provide BSEE and BOEM with a cable monitoring report within 90 days following each inspection. Inspections of the inter-array and 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.

2.15.1 If BSEE 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 Lessee to submit a revised inspection schedule for review and concurrence.

2.15.2 If BSEE determines that burial conditions have deteriorated or changed significantly and remedial actions are warranted, BSEE will notify the Lessee that the Lessee must submit to BSEE 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 approved COP. BSEE will review the plan and schedule and provide any comments within 60 days of receiving the plan. The Lessee must resolve all comments to BSEE's satisfaction.

2.15.3 If the Lessee determines that burial conditions have deteriorated or changed significantly and remedial actions are warranted, the Lessee must submit the following to BSEE 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. All remedial actions must be consistent with those described in the approved COP. BSEE will review the plan and schedule and provide comments within 60 days, if applicable. The Lessee must resolve all comments to BSEE's satisfaction.

2.16 WTG and OSS Foundation Depths (Planning). In a letter dated March 23, 2022, BOEM granted a departure from 30 C.F.R. § 585.626(a)(4) and (6), permitting the Lessee to provide the final geotechnical investigation at the proposed foundation locations in the FDR. The FDR must include geotechnical investigations at all approved foundation locations along with associated geotechnical design parameters and recommendations consistent with 30 C.F.R. § 585.626(a)(4) and (6). The geotechnical investigations at each OSS must include, at a minimum, one deep boring located within the footprint of each OSS.

2.17 Structural Integrity Monitoring (Construction) (Operations). The Lessee must conduct annual above-water inspections to ensure structural integrity is maintained. The Lessee must inspect the condition of the cathodic protection system(s) and inspect 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 Lessee must provide a summary of the findings in the Annual Self-Inspection Report pursuant to 30 C.F.R. § 285.824(b). See Section 2.19 for post-storm structural integrity monitoring.

2.18 Foundation Scour Protection Monitoring (Construction) (Operations) (Decommissioning). The Lessee must minimize the footprint of scour protection measures at the WTG foundations to the extent practicable without compromising engineering design requirements and must inspect scour protection performance. The Lessee must submit an Inspection Plan to BSEE 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 Lessee 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 Lessee may presume concurrence.

2.18.1 The Lessee must carry out an initial foundation scour inspection within 6 months of completing the 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, described in Section 2.19).

2.18.2 The Lessee must provide BOEM 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.

2.18.2.1 The Lessee must document any occurrence of invasive lionfish (Pterois volitans and P. miles) in the foundation scour monitoring report.

2.18.3 The Lessee must submit a plan for additional monitoring and/or mitigation to 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.

2.19 Post-Storm Event Monitoring Plan (Construction) (Operations) (Decommissioning). The Lessee must provide a plan for post-storm event monitoring of the facility infrastructure, foundation scour protection, and cables to BSEE for review at least 60 days prior to commencing installation activities. The Lessee must receive BSEE's 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 Lessee 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 Lessee must notify 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 reserves the right to require post-storm mitigations to address conditions that could result in safety risks and/or impacts to the environment.

2.20 High-Frequency Radar Interference Analysis and Mitigation (Planning) (Construction) (Operations). The Project has the potential to interfere with oceanographic high-frequency (HF) radar systems in the U.S. Integrated Ocean Observing System (IOOS®), which is managed by the IOOS Office within the NOAA pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (Pub. L. No. 111-11), as amended by the Coordinated Ocean Observation and Research Act of 2020 (Pub. L.

No. 116-271, Title I), codified at 33 U.S.C. §§ 3601–3610 (referred to herein as "IOOS HF-radar"). IOOS HF-radar measures the sea state, including ocean surface current velocity and waves in near real-time. These data have many vital uses, including tracking and predicting the movement of spills of hazardous materials or other pollutants, monitoring water quality, and predicting sea state for safe marine navigation. The USCG also integrates IOOS HF-radar data into its Search and Rescue systems. The Project is within the measurement range of seven oceanographic HF radar systems listed in Table 2-1 below:

Table 2-1: Identified IOOS HF Radar Systems

Radar Name	Radar Operator
Assateague, MD SeaSonde (ASSA)	Old Dominion University
Cedar Island, VA SeaSonde (CEDR)	Old Dominion University
First Landing State Park, VA SeaSonde (FLND)	Old Dominion University
Jennette's Pier, NC SeaSonde (JENN)	East Carolina University
Little Island Park, VA SeaSonde (LISL)	Old Dominion University
Ocean View Beach, VA SeaSonde (VIEW)	Old Dominion University
Sunset Beach Resort, VA SeaSonde (SUNS)	Old Dominion University

2.20.1 Mitigation Requirement. Due to the potential interference with IOOS HF-radar and the risk to public health, safety, and the environment, the Lessee must mitigate unacceptable interference with IOOS HF-radar from the Project. Interference must be mitigated before commissioning the first WTG or before blades start spinning, whichever is earlier, and interference mitigation must continue throughout operations and decommissioning until the point of decommissioning where all rotor blades are removed. Interference is considered unacceptable if, as determined by BOEM in consultation with NOAA's IOOS Office, IOOS HF-radar performance falls or may fall outside any of the specific radar systems' operational parameters or fails or may fail to meet IOOS's mission objectives.

2.20.2 Mitigation Review. The Lessee must submit to BOEM documentation demonstrating how it will mitigate unacceptable interference with IOOS HF-radar systems in accordance with Section 2.20.1. The Lessee must submit this documentation to BOEM at least 120 days prior to commissioning the first WTG or the start of blades spinning, whichever is earlier. After the Lessee submits the documentation and after BOEM, in consultation with the NOAA IOOS Office, deems the mitigation acceptable, the Lessee must conduct activities in accordance with the proposed mitigations.

2.20.3 Mitigation Agreement. The Lessee is encouraged to enter into an agreement with the NOAA IOOS Office to implement mitigation measures, and any such Mitigation Agreement may satisfy the requirement to mitigate unacceptable interference with IOOS HF-radar. The point of contact for the development of a Mitigation Agreement with the NOAA IOOS Office is the Surface Currents Program Manager, whose contact information is available at https://ioos.noaa.gov/about/meet-the-ioos-program-office/ and upon request from BOEM. If the parties reach a mitigation agreement, the Lessee must

submit the agreement to BOEM. A Lessee may satisfy its obligations under Section 2.20.2 by providing BOEM with an executed Mitigation Agreement between the Lessee and NOAA IOOS. If there is any discrepancy between Section 2.20.2 and the terms of a Mitigation Agreement, the terms of the Mitigation Agreement will prevail.

2.20.4 Mitigation Data Requirements. Mitigation required under Section 2.20.2 must address the following:

2.20.4.1 Before commissioning the first WTG or before blades start spinning, whichever is earlier, and continuing throughout the life of the Project until the point of decommissioning when all rotor blades are removed, the Lessee must make publicly available via NOAA IOOS near real-time, accurate numerical telemetry of surface current velocity, wave height, wave period, wave direction, and other oceanographic data measured at Project locations selected by the Lessee in coordination with the NOAA IOOS Office.

2.20.4.2 If requested by the NOAA IOOS Office, the Lessee must share with IOOS accurate numerical time-series data of blade rotation rates, nacelle bearing angles, and other information about the operational state of each WTG in the Lease Area to aid interference mitigation.

2.20.5 Additional Notification and Mitigation.

2.20.5.1 If at any time the NOAA IOOS Office or an HF-radar operator informs the Lessee that the Project will cause unacceptable interference to an HF-radar system, the Lessee must notify BOEM of the determination and propose new or modified mitigation pursuant to Section 2.20.5.2 as soon as possible and no later than 30 days from the date on which the determination was communicated.

2.20.5.2 If a mitigation measure other than that identified in Section 2.20.2 is proposed, then the Lessee must submit information on the proposed mitigation measure to BOEM for its review and concurrence. If, after consultation with the NOAA IOOS Office, BOEM deems the mitigation acceptable, the Lessee must conduct activities in accordance with the proposed mitigations. The Lessee must resolve all comments on the documentation to BOEM's satisfaction, in consultation with the NOAA IOOS office, prior to implementation of the mitigation.

2.21 Critical Safety Systems and Equipment (Planning) (Construction). The Lessee must provide to BSEE a qualified third-party verification of (1) the identification, (2) proper installation, and (3) commissioning of all critical safety equipment and systems. The documentation provided to BSEE must demonstrate that the qualified third party verified that the critical safety systems were identified using appropriate methodologies

as defined by the operator's risk management standards, were installed and commissioned in conformity with the Original Equipment Manufacturer's (OEM's) standards and the Project's functional requirements, and are functioning properly, as required by the surveillance reporting requirements in Section 2.21.5.

2.21.1 Qualified Third Party. A qualified third party must be either a technical classification society, a licensed professional engineering firm, or a registered professional engineer capable of providing the necessary certifications, verifications, and reports. The qualified third party must not have been involved in the design of the Project.

2.21.2 Critical Safety Systems and Equipment. Critical safety systems and equipment, as that term is used in this condition, are those designed to prevent or ameliorate fires, spillages, or other major accidents that could result in harm to health, safety, or the environment. Critical safety systems and equipment include but are not limited to equipment, devices, engineering controls, or system components that are designed to prevent, detect, or mitigate impacts from major accidents that could result in harm to health, safety or the environment including systems that facilitate the escape and survival of personnel.

2.21.3 Identification of Critical Safety Systems and Equipment Risk Assessment. The Lessee must conduct a risk assessment(s) to identify hazards and the critical safety systems and equipment used within its facilities, including the WTG, tower, and each OSS, to prevent or mitigate hazards. The Lessee must submit the risk assessment(s) to BSEE and the qualified third party for review no later than submission of the FDR. The Lessee must arrange with the qualified third party—and provide the necessary information—for a qualified third party to make a recommendation to BSEE on the acceptability of the risk assessment(s), and any associated conclusions regarding identified hazards and implemented or changed critical safety systems and equipment. The Lessee must resolve BSEE's comments to BSEE's satisfaction before BSEE completes its review of the associated FDR under 30 C.F.R. § 285.700.

2.21.4 Installation and Commissioning Surveillance Requirements. The Lessee must ensure the proper installation and commissioning of the critical safety systems and equipment. The Lessee must arrange for a qualified third party to evaluate whether the installation and commissioning of the critical safety systems and equipment are in conformance with the OEM requirements and the Project's functional requirements. BSEE and the Lessee may agree to perform additional tests during commissioning surveillance activities. The third-party evaluation must include (1) an examination of the commissioning records of the critical safety systems and equipment for every WTG and OSS, and (2) witnessing the commissioning of the critical safety systems and equipment of 5 percent of the WTGs, including at least one WTG in the first array string, and each OSS. The Lessee must arrange for a qualified third party, at a minimum, to verify the following:

2.21.4.1 The installation procedures and/or commissioning instructions supplied by the manufacturer and identified in the Project's functional requirements are adequate.

2.21.4.2 During commissioning, the Lessee is following the instructions supplied by the manufacturer and identified in the Project's functional requirements.

2.21.4.3 The systems and equipment function as designed.

2.21.4.4 The completion of the final commissioning records.

2.21.5 Surveillance Reporting. The Lessee must submit to BSEE surveillance records (for example, the final results and acceptance of the commissioning test by the qualified third party) or a Conformity Statement and supporting documentation (prepared consistent with *International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications* [IECRE OD-502, 2018)]) for the critical safety systems identified in Section 2.21.2. Surveillance records for each OSS must be submitted within two weeks of verification by the qualified third party. After the commissioning of the critical safety systems and equipment has been completed for the first WTG, the Lessee must, on a bi-weekly basis, submit the surveillance records or Conformity Statement and supporting summary documentation for all WTGs which have been verified by a qualified third party within the previous two weeks. If BSEE has not responded to the surveillance records or Conformity Statement and supporting documentation submitted by the qualified third party within 5 business days, then the Lessee may presume concurrence and continue operating. If the surveillance records or Conformity Statement and supporting documentation are not submitted within 2 weeks of qualified third-party verification of the commissioning of the safety systems or if BSEE objects to the submission, the facility to which the surveillance records or Conformity Statement pertains must cease commercial operations.

2.22 Engineering Drawings (Construction) (Operations) (Decommissioning). The Lessee must compile, retain, and make available to BSEE the drawings and documents specified in Table 2-2.

Table 2-2: Engineering Drawings

Drawing Type	Time Frame to Submit "Issued for Construction" Drawings	Time Frame to Make Available Post-Fabrication Drawings	Deadline to Submit Final, As-Built Drawings
Complete set of structural drawing(s), including major structural components and evacuation routes [6]	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	Submit no later than March 31st of each calendar year, for all structures installed the prior year and submitted annually until completion of installation.
Front, side, and plan view drawings [7]	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	N/A
Location plat for all Project facilities[8]	With FDR submittal. Drawings must be reviewed and stamped by a registered professional land surveyor.	N/A	Submit no later than March 31st of each calendar year, for all facilities installed the prior year and updated annually until completion of installation. Drawings must be reviewed and stamped by a registered professional land surveyor.
Complete set of cable drawing(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	Prior to completion of the Final FIR review as contemplated in 30 C.F.R. § 285.700(b)[9]	Submit quarterly for all facilities installed in the previous quarter.
Proposed Anchoring Plat as required by Section 5.9.2 and 7.2	120 days before anchoring activities. If there are fewer than 120 days between anchoring activities and this COP approval, no later than 60 days prior to commencing anchoring activities.	N/A	N/A

6 As required by 30 C.F.R. § 285.701(a)(4). This is applicable to the WTGs and OSSs.

7 As required by 30 C.F.R. § 285.701(a)(3). This is applicable to the WTGs and OSSs.

8 As required by 30 C.F.R. § 285(a)(2). This is applicable for all installed assets on the OCS including scour protection, cables, WTGs, and OSSs.

9 As-installed location must be submitted with the final FIR.

Table 2-2: Engineering Drawings

Drawing Type	Time Frame to Submit "Issued for Construction" Drawings	Time Frame to Make Available Post-Fabrication Drawings	Deadline to Submit Final, As-Built Drawings
As-placed Anchor Plats for all anchoring activities	N/A	N/A	Submit 90 days after completion of an activity or construction of a major facility component.
Piping and instrumentation diagram(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	Submit quarterly for all facilities installed in the previous quarter.
Safety diagram(s)[10]	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	Submit quarterly for all facilities installed in the previous quarter.
Electrical drawings, i.e. - Electrical one-line drawing(s) and Protective Relay Coordination Study/Diagram	With FDR- submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	Submit quarterly for all facilities installed in the previous quarter.
Cause and Effect Chart	With FDR submittal.	N/A	N/A
Schematics of fire and gas-detection system(s)	With FDR submittal. Drawings must be reviewed and stamped by a registered professional engineer.	N/A	Submit quarterly for all facilities installed in the previous quarter.
Area classification diagrams	With FDR submittal.	N/A	Submit quarterly for all facilities installed in the previous quarter.

2.22.1 Engineering drawings and the associated engineering report(s) must be reviewed and stamped by a licensed professional engineer, or a professional land surveyor, as outlined in Table 2-2. If a report or drawing required a PE stamp, any modification to that system will require a PE stamp. For modified systems, only the modifications are required to be stamped by a licensed professional engineer(s) or a professional land surveyor. The professional engineer or land surveyor must be licensed in a state or territory of the United States and have sufficient expertise and experience to perform the duties.

[10] Safety diagrams should depict the location of critical safety systems and equipment designed to prevent or ameliorate major accidents that could result in harm to health, safety, or the environment. This should include, but not be limited to, escape routes, station bill, fire/gas detectors, firefighting equipment, etc.

2.22.2 The Lessee must ensure that the engineer of record submits a stamped report showing that the as-built design documents have been reviewed, do not make material changes from the issued for construction (IFC) drawings, and accurately represent the as-installed facility. The Lessee must also ensure that the engineer of record documents any differences between the IFC drawings and the as-built drawings in the stamped report and submits the report with the as-built drawings.

2.22.3 As-Placed Anchor Plats. The Lessee must provide as-placed anchor plats to BOEM and BSEE within 90 days of completion of an activity (including during operations and decommissioning) or construction of a major facility component (e.g., buoys, export cables, WTGs or OSSs, inter-array cables, etc.) or decommissioning to demonstrate that seafloor-disturbing activities complied with avoidance requirements for seafloor features and hazards, archaeological resources, and/or anomalies. As-placed anchor plats must show the "as-placed" location of all anchors and any associated anchor chains and/or wire ropes and relevant locations of interest or avoidance on the seafloor for all seabed disturbing activities. The plats must be at a scale of 1 inch = 1,000 feet (300 meters) with Differential Global Positioning System (DGPS) accuracy. The Lessee must submit the plats to BSEE.

2.23 Construction Status (Construction). On a monthly basis, the Lessee must provide BSEE, BOEM, and the USCG with a construction status update and any changes to the construction schedule or process described in the plan required by Section 3.2.1 (Installation Schedule).

2.24 Maintenance Schedule (Operations). On a quarterly basis, the Lessee must provide BSEE with its maintenance schedule for any planned WTG or OSS maintenance.

2.25 Pre-lay Grapnel Run Plan (Planning). The Lessee must submit a Pre-lay Grapnel Run Plan for BSEE review and concurrence. The plan must be submitted at least 60 days prior to pre-lay grapnel run activities. BSEE will review the plan and provide comments, if applicable, within 60 days of submittal. The Lessee must resolve BSEE's comments to BSEE's satisfaction. If BSEE does not provide comments on the plan within 60 days of its submittal, then the Lessee may presume BSEE's concurrence with the plan. The plan must be consistent and meet the conditions of the SMS in Section 2.8.

2.25.1 The plan must include the following:

2.25.1.1 Figures of the location of pre-lay grapnel run activities.

2.25.1.2 A description of pre-lay grapnel run methods, including expected grapnel penetration depth, vessel specifications, metocean limits on operation, etc.

2.25.1.3 A description of debris removal and disposal methods and applicable environmental regulations.

2.25.1.4 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 (Section 2.14).

2.25.1.5 The environmental footprint of disturbance activities and measures taken to avoid further adverse impacts to archaeological resources, seafloor hazards, complex habitat, and fishing operations.

2.25.1.6 A description of MEC/UXO ALARP certified areas, which must be consistent with MEC/UXO ALARP Certification (Section 2.4).

2.25.1.7 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).

2.25.2 The Lessee must submit a letter to BSEE outlining any deviations from the Pre-lay Grapnel Run Plan within 90 days following the completion of pre-lay grapnel run activities.

2.26 Boulder Identification and Relocation Plan (Planning) (Construction). In the event the Project plans to relocate boulders as part of seabed preparation activities, the Lessee must submit a Boulder Identification and Relocation Plan to BSEE and BOEM for review and concurrence. The plan must detail how the Lessee will relocate boulders as close as practicable to areas immediately adjacent to existing and similar habitat, and how the Lessee will reduce facility installation and operational risks. The plan must be submitted to BOEM and BSEE for a 60-day review prior to boulder relocation activities. The Lessee must resolve all comments on the Boulder Identification and Relocation Plan to BOEM's and BSEE's satisfaction prior to implementation of the plan. If BOEM or BSEE do not provide comments on the plan within 60 days of its submittal, then the Lessee may presume concurrence with the plan. The plan must include sufficient scope to mitigate boulders for facility installation and operational risks. The plan must be consistent with and meet the conditions of the SMS in Section 2.8. The plan must include the following for boulders that are proposed to be relocated:

2.26.1 A summary and detailed description of surface and subsurface boulders greater than 0.5 m in diameter and locations along the cable routes and WTG areas where such boulders have been found;

2.26.1.1 A detailed summary of methodologies used in boulder identification, including geological and geophysical survey results;

2.26.1.2 Figures of the location of boulder relocation activities specified by activity type (e.g., pick or plow, removal, or placement);

2.26.1.3 A description of boulder removal and/or relocation methods for each type of boulder relocation activity, and technical feasibility constraints, including, but not limited to, the capacity of the crane

used in grab systems, vessel specifications, and metocean limits on operations;

2.26.1.4 The environmental footprint of disturbance activities and measures taken to avoid further adverse impacts to archaeological resources, complex habitat and fishing operations;

2.26.1.5 A comprehensive list and shapefile of locations of boulders that would be relocated (latitude, longitude), boulder dimensions (meters), buffer radius (meters), areas of active (within last 5 years) bottom trawl fishing (latitude, longitude), areas where boulders greater than 2 meters in diameter are anticipated to occur (latitude, longitude), and identification of approximate areas to which boulders would be relocated (latitude, longitude);

2.26.1.6 The measures taken to minimize the quantity of seafloor obstructions from relocated boulders in areas of active bottom trawl fishing, as technically and/or economically feasible;

2.26.1.7 A description of safety distances or zones to limit boulder relocation near third-party assets;

2.26.1.8 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);

2.26.1.9 A description of MEC/UXO ALARP certified areas, which must be consistent with MEC/UXO ALARP Certification (Section 2.4); and

2.26.1.10 A statement of consistency with the Micrositing Plan (Section 5.9.3).

2.26.2 The Lessee must provide USCG, NOAA, and the local harbormaster with a comprehensive list and shapefile of positions and areas to which boulders greater than 2 m in diameter would be relocated (latitude, longitude) at least 60 days prior to boulder relocation activities.

2.27 Boulder Relocation (Construction). The Lessee must implement methods identified in the approved COP and described in the Boulder Identification and Relocation Plan for boulder relocation activities. The Lessee must consider the spatial extent of boulder relocation in the micrositing of WTGs and OSS foundations and inter-array and export cables for this Project and must relocate boulders as close as practicable in areas immediately adjacent to existing similar habitat. The relocation of boulders must be consistent with the Project easement.

2.28 Boulder Relocation Report (Construction). The Lessee must provide a Boulder Relocation Report to BSEE and BOEM and make the Boulder Relocation Report available to the approved CVA. The report must include a post-relocation summary of the boulder relocation activities and information to certify boulder risks related to the

installation and operation of the facility have been properly mitigated. The report must also identify boulders that could not be relocated with documentation of technical feasibility concerns, including information on how, if at all, the final boulder placement differs from the Boulder Relocation Plan and why such changes were necessary. The report must be submitted within 60 days of completion of the boulder relocation activities. The Lessee must also provide BOEM and BSEE a comprehensive list and shapefile of boulder locations to which boulders were relocated (latitude, longitude), boulder dimensions (m), any safety distances or zones to limit boulder relocation near third-party assets (m), and areas of active (within last 5 years) bottom trawl fishing (i.e., as a raster file for use in ArcGIS).

3 NAVIGATIONAL AND AVIATION SAFETY CONDITIONS

3.1 Design Conditions (Planning) (Construction) (Operations).

3.1.1 Marking. The Lessee 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 Lessee must file an application (form CG-2554, or CG-4143), with the Commander of the Fifth USCG District to establish PATON as provided in 33 C.F.R. Part 66. USCG approval of the application must be obtained before the Lessee begins installation of the facilities. The lighting, marking, and signaling plan, and the design specifications for maritime navigation lighting must be included in the PATON application. The Lessee must:

3.1.1.1 Provide a lighting, marking, and signaling plan for review by BOEM, BSEE, and the USCG at least 120 days before foundation installation. The Lessee must obtain BOEM's and BSEE's concurrence with the 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 (Ed. 1.1, Dec. 2021); and BOEM's Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development (April 28, 2021).

3.1.1.2 Mark each individual WTG and OSS with clearly visible, unique, alpha-numeric identification characters as agreed to by BOEM, BSEE, and the USCG. The Lessee must additionally display this label on each WTG nacelle, visible from above. If the Lessee's OSS includes helicopter landing platforms, the Lessee must also display this label on the platforms, visible from above.

3.1.1.3 For each WTG, the Lessee must install red obstruction lighting that is consistent with the Federal Aviation Administration (FAA) (Advisory Circular 70/7460-lM, Nov. 2020).

3.1.1.4 Provide signage that is visible to mariners in a 360-degree arc around the structures to inform vessels of the vertical blade-tip clearance as determined at Highest Astronomical Tide.

3.1.1.5 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 Lessee's compliance with Sections 3.1.1.1 through 3.1.1.4.

3.1.1.6 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).

3.1.2 Blade/Nacelle Control. The Lessee must equip all WTG rotors (blade assemblies) with control mechanisms constantly operable from the Lessee's control center.

3.1.2.1 Control mechanisms must enable the Lessee to initiate the shutdown of any WTG upon emergency order from the Department of Defense (DoD) or the USCG. The Lessee must initiate braking and shutdown of each requested WTG immediately after the shutdown order. The Lessee may resume operations only upon notification from the entity (DoD or USCG) that initiated the shutdown.

3.1.2.2 The Lessee must include a shutdown procedure in its Emergency Response Procedure and test the shutdown capability (functioning) of at least one WTG within the lease area at least annually. The Lessee must submit the results of testing to BSEE with the Project's annual inspection results.

3.1.2.3 The Lessee must work with the USCG to establish the proper blade configuration during WTG shutdown for USCG air assets conducting search and rescue operations.

3.1.2.4 The Lessee must notify 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.

3.1.3 Structure Micrositing. The Lessee 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 nmi by 0.93 nmi nor to a layout that eliminates two distinct lines of orientation in a grid pattern. The Lessee must submit the final as-built structure locations as part of the as-built documentation outlined in Section 2.22.

3.2 Installation Conditions (Planning) (Construction).

3.2.1 Installation Schedule. As early as possible, but not fewer than 60 days prior to commencing offshore construction activities, the Lessee must provide the USCG with a plan that describes the schedule and process for seabed preparation, export and inter-array cable installation, and installing the WTGs and OSSs, including all planned mitigations to be implemented to minimize any adverse impacts to navigation while installation is ongoing. Appropriate Notice to Mariners submissions must accompany the plan and its revisions.

3.2.2 Design Modifications. Any changes or modifications in the design of the Lease Area that may impact navigation safety (including, but not limited to, a change in the number, size, or location of WTGs, or a change in construction materials or construction method), requires written approval by BSEE.

3.2.3 Cable Burial. A detailed cable burial plan, containing the proposed locations and burial depths, must be submitted to the USCG and BSEE for BSEE review no later than the relevant FIR submittal. In accordance with Section 2.22, the Lessee must submit to BSEE, 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).

3.2.4 Nautical Charts/Navigation Aids. The Lessee must submit the as-built coordinates for all OSSs and WTGs to USCG and NOAA consistent with Section 2.22, to facilitate government-produced and commercially available nautical charts.

3.3 Reporting Conditions (Planning) (Construction) (Operations) (Decommissioning).

3.3.1 Complaints. On a monthly basis, the Lessee must provide BSEE with (1) a description of any complaints received (written or oral) by boaters, fishermen, commercial vessel operators, or other mariners regarding impacts to navigation safety allegedly caused by construction or operations vessels, crew transfer vessels, barges, or other equipment; and (2) a description of remedial action(s) taken in response to complaints received, if any. BSEE reserves the right to require additional remedial action consistent with 30 C.F.R. Part 285.

3.3.2 Correspondence. On a monthly basis, the Lessee must provide BSEE, BOEM, and the USCG with copies of any correspondence received from other federal, state, or local agencies regarding navigation safety issues.

3.4 Meeting Attendance (Planning) (Construction) (Operations) (Decommissioning). As requested by BSEE, BOEM, and the USCG, the Lessee must attend meetings (i.e., Harbor Safety Committee, Area Committee) to provide briefings on the status of construction and operations, and on any problems or issues encountered with respect to navigation safety.

4 NATIONAL SECURITY CONDITIONS

4.1 Hold and Save Harmless – United States Government (Planning) (Construction) (Operations) (Decommissioning). Whether compensation for such damage or injury might otherwise be due under a theory of strict or absolute liability or any other theory, the Lessee assumes all risks of damage or injury to any person or property that occurs in, on, or above the OCS in connection with any activities being performed by the Lessee in, on, or above the OCS, if the injury or damage to any person or property occurs by reason of the activities of any agency of the United States Government, its contractors or subcontractors, or any of its officers, agents or employees, being conducted as a part of, or in connection with, the programs or activities of the individual military command headquarters (hereinafter "the appropriate command headquarters") listed below:

United States Fleet Forces (USFF) N46
1562 Mitscher Ave, Suite 250
Norfolk, VA 23551
(757) 836-6206

The Lessee assumes this risk, whether or not such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The Lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury in connection with the programs or activities of the appropriate command headquarters, whether the same is caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

4.2 Oceana Virginia Air Route Surveillance Radar (ARSR-4) and Naval Air Station (NAS) Oceana Airport Surveillance Radar System (ASR-11) (Planning) (Construction) (Operations) (Decommissioning). To mitigate impacts on the North American Aerospace Defense Command's (NORAD's) operation of the Oceana, VA, Air Route Surveillance Radar (ARSR-4) and NAS Oceana Airport Surveillance Radar (ASR-11), the Lessee must complete the following:

4.2.1 Mitigation Agreement. The Lessee must enter into a mitigation agreement with the DoD/NORAD for purposes of implementing Sections 4.2.2 and 4.2.3 below. If there is any discrepancy between Sections 4.2.2 and 4.2.3 and the terms of the mitigation agreement, the terms of the mitigation agreement will prevail. Within 15 days of entering into the mitigation agreement, the Lessee must provide BOEM and BSEE with a copy of the executed mitigation agreement. Within 45 days of completing the requirements in Sections 4.2.2 and 4.2.3, the Lessee must provide BOEM with evidence of compliance with those requirements. The NORAD point of contact for the development of the agreement is John Rowe: John.Rowe.14@us.af.mil.

4.2.2 NORAD Notification. At least 30, but no more than 60, days prior to the completion of commissioning of the last WTG (i.e., that date by which every

WTG in the Project is installed with potential for blade rotation), the Lessee must notify NORAD for Radar Adverse Impact Management (RAM) scheduling.

4.2.3 Funding for RAM Execution. At least 30, but no more than 60, days prior to the completion of commissioning of the last WTG (i.e., that date by which every WTG in the Project is installed with potential for blade rotation), the Lessee must contribute funds in the amount of $160,000 to NORAD toward the execution of the RAM. If the time gap between the commissioning of the first and last WTG is anticipated to be 3 years or greater, the Lessee must contribute additional funds in the amount of $80,000 to NORAD toward the execution of the RAM when 50 percent of the WTGs are commissioned, and an additional $80,000 to NORAD toward the execution of additional RAM when the last WTG is commissioned, if commissioning of the last WTG occurs later than 3 years from commissioning of the first WTG. This allows NORAD to manage radar adverse impacts over an extended period of construction.

4.3 Department of the Navy Operations (Planning) (Construction) (Operations) (Decommissioning). To mitigate potential impacts on the Department of the Navy's (DON) operations, the Lessee must enter into a mitigation agreement(s) with the DoD/DON for purposes of implementing Sections 4.3.1. through 4.3.5. If there is any discrepancy between Sections 4.3.1. through 4.3.5 and the terms of the mitigation agreement, the terms of the mitigation agreement will prevail. Within 15 days of entering into the mitigation agreement, the Lessee must provide BOEM and BSEE with a copy of the executed mitigation agreement. Within 45 days of completing the requirements in Section 4.3.1. through 4.3.5, the Lessee must provide BOEM with evidence of compliance with those requirements. If the Lessee concludes that it will be unable to reach a mitigation agreement, the Lessee must inform BOEM as soon as possible, and no later than 60-days prior to the deadline(s) set forth in Sections 4.3.1 to 4.3.5. A mitigation agreement will not be required if BOEM has determined—at its sole discretion and based on its review of the record of relevant communications from the Lessee to the DoD and the DON—that the Lessee made reasonable efforts to enter an agreement and was unable to do so. Information to support a claim of reasonable efforts may include call logs, emails, letters or other methods of communication. The DON point-of-contact for coordination is Matthew Senska: matthew.senska@navy.mil; 571-970-8400.

4.3.1 Communications Protocols for Construction. Prior to commencing construction on the OCS, the Lessee must establish a communications plan in coordination with the U.S. Fleet Forces Command (USFFC) and the Naval Air Warfare Center Aviation Division (NAWCAD) concerning construction activities with the potential to impact military activities.

4.3.2 Communication Protocols for Operations & Maintenance. Prior to the completion of the commissioning of the last WTG, the Lessee must establish a communications plan in coordination with USFFC and NAWCAD concerning

operations and maintenance activities with the potential to impact military activities.

4.3.3 NAS Patuxent River Advanced Dynamic Aircraft Measurement System. The Lessee must mitigate impacts on the Naval Air Station (NAS) Patuxent River Advanced Dynamic Aircraft Measurement System operations. DON will conduct modeling to determine Project impacts and to define the mitigation measures required in the mitigation agreement. Such mitigation measures should be narrowly tailored to address the impacts on the NAS Patuxent River Advanced Dynamic Aircraft Measurements System operations found by the modeling.

4.3.4 Distributed Fiber-Optic Sensing Technology. (Planning) (Construction) (Operation). The Lessee must coordinate with the DoD and the DON on any proposal to use distributed fiber-optic sensing technology as part of the Project or associated transmission cables.

4.3.5 Risk Assessment of Foreign Investment and Material Vendors. The Lessee will provide the DoD and the DON with the opportunity to assess risk related to foreign investment and foreign material vendors to avoid or minimize the potential to conflict with, and minimize the potential effects of conflicts with, national security operations.

4.4 Coordination with NAS Oceana. Throughout the installation, construction, operations, and decommissioning of the Project, the Lessee must coordinate access with NAS Oceana for entry to the real estate through which the onshore export cable route lies. The DON point-of-contact for coordination is Matthew Senska: matthew.senska@navy.mil; 571-970-8400.

4.5 Electromagnetic Emissions (Planning) (Construction) (Operations). Before entering any designated defense operating area, warning area, or water test area for the purpose of carrying out any survey activities under the approved COP, the Lessee must enter into an agreement with the commander of the appropriate command headquarters to coordinate the electromagnetic emissions associated with such survey activities. The Lessee must ensure that all electromagnetic emissions associated with such survey activities are controlled as directed by the commander of the appropriate command headquarters. The Lessee must provide BOEM and BSEE with a copy of the agreement within 15 days of entering into the agreement.

4.6 Deconfliction of Joint Base Langley-Eustis Aviation and Unmanned Aircraft System Operations (Planning) (Construction) (Operations) (Decommissioning). To mitigate the potential impacts on the Department of the Army (Army) aviation operations, the Lessee must coordinate with the Army 90 to 180 days prior to usage of unmanned aircraft systems (UAS) in support of both on-shore and off-shore maintenance operations. The Army point-of-contact for coordination relating to UAS is Joseph Gill: joseph.t.gill4.civ@army.mil; 703-806-2266.

5 PROTECTED SPECIES[11] AND HABITAT CONDITIONS

5.1 General Environmental Conditions (Planning) (Construction) (Operations) (Decommissioning).

5.1.1 Aircraft Detection Lighting System. The Lessee 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 Lessee must confirm the use of, and submit to BOEM and BSEE, information about the FAA-approved vendor for ADLSs on WTGs and the OSS at the time the relevant FIR is submitted.

5.1.2 Marine Debris[12] Awareness and Elimination.

5.1.2.1 The Lessee 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) described in Section 5.1.2.2 through Section 5.1.2.10 to BSEE via TIMSWeb with a notification email sent to marinedebris@bsee.gov.

5.1.2.2 Marine Debris Awareness Training and Certification. The Lessee 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 Lessee must make this certification available to BSEE for inspection upon request.

5.1.2.3 Training Compliance Report. By January 31 of each year, the Lessee must submit to BSEE an annual report that describes its marine debris

[11] As used herein, the term "protected species" means species of fish, wildlife, or plant that have been determined to be endangered or threatened under Section 4 of the Endangered Species Act (ESA). ESA-listed species are provided in 50 C.F.R. § 17.11-12. The term also includes marine mammals protected under the MMPA.

[12] Throughout this document, "marine debris" is defined as any object or fragment of wood, metal, glass, rubber, plastic, cloth, paper, or any other man-made item or material that is lost or discarded in the marine environment.

awareness training process and certifies that the training process has been followed for the preceding calendar year.

5.1.2.4 Marking. Any materials, equipment, tools, containers, and other items that are used in OCS activities and that are of a shape or configuration likely to snag or damage fishing devices or be lost ordiscarded 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.

5.1.2.5 Recovery. Discarding debris in the marine environment is prohibited. Debris accidentally released by the Lessee 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 OCS 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 Lessee must contact BSEE for concurrence before conducting any recovery efforts. The Lessee must take steps to prevent similar releases of marine debris and must submit a description of these preventative actions to BSEE within 30 days from the date on which the release of marine debris occurred.

5.1.2.6 Notification. The Lessee must notify 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 Lessee 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 in Section 5.1.2.5).

5.1.2.7 Remedial Recovery. After reviewing the notification and rationale for any decision by the Lessee to forgo recovery as described in Section 5.1.2.5, BSEE may order the Lessee to recover the marine debris if BSEE finds that the reasons provided by the Lessee in the notification are insufficient and the marine debris would cause undue harm or damage to natural resources or interfere with OCS uses.

5.1.2.7.1 Recovery Plan. If BSEE requires the Lessee to recover the marine debris, the Lessee must submit a Recovery Plan to BSEE within 10 days after receiving BSEE's order. Unless

BSEE objects within 48 hours after the Recovery Plan has been accepted or is in review status by BSEE in TIMSWeb, the Lessee 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 grants the Lessee an extension.

5.1.2.7.2 Recovery Completion Notification. Within 30 days after the marine debris is recovered, the Lessee must provide notification to BSEE 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.

5.1.2.8 Monthly Reporting. The Lessee 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 Lessee 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:

5.1.2.8.1 Project identification and contact information for the Lessee and for any operators or contractors involved;

5.1.2.8.2 The date and time of the incident;

5.1.2.8.3 The lease number, OCS area and block, and coordinates of the object's location (latitude and longitude in decimal degrees);

5.1.2.8.4 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);

5.1.2.8.5 Pictures, data imagery, data streams, and/or a schematic or illustration of the object, if available;

5.1.2.8.6 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 m), or a sub-bottom anomaly of greater than 1.6 feet (0.5 m) when operating a magnetometer or gradiometer, side scan sonar, or sub-bottom profiler;

5.1.2.8.7 An explanation of how the object was lost; and

5.1.2.8.8 A description of immediate recovery efforts and results, including photos.

5.1.2.9 Annual Surveying and Reporting. Periodic Underwater Surveys, Reporting of Monofilament and Other Fishing Gear Around WTG Foundations. The Lessee 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 and BSEE. The Lessee may conduct surveys by remotely operated vehicles, divers, or other means to determine the frequency and locations of marine debris. The Lessee must report the results of the surveys to BOEM 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.

5.1.2.9.1 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 Lessee's corporate gear loss compensation policy and procedures. Required data and reports may be archived, analyzed, published, and disseminated by BOEM and/or BSEE.

5.1.2.10 Site Clearance and Decommissioning. The Lessee must include information on unrecovered marine debris in the description of the site clearance activities provided in the decommissioning application required under 30 C.F.R. §§ 585.906 and 285.906.

5.2 Avian and Bat Protection Conditions.

5.2.1 The Lessee must submit all required documents related to avian and bat protection conditions in Sections 5.2.2 through Section 5.2.8 to BOEM; to BSEE via TIMSWeb and notification email at protectedspecies@bsee.gov; and to USFWS at (emily_argo@fws.gov). The Lessee must confirm the relevant point of contact before submitting the required documents and must also confirm that the agencies have received the documents.

5.2.2 Bird-Deterrent Devices and Plan. To minimize attracting birds to operating WTGs, the Lessee must install bird perching-deterrent device(s) where such devices can be safely deployed. on each WTG and OSS. The Lessee must submit a plan to deter perching on offshore infrastructure by listed bird species for BOEM and BSEE approval. BOEM, BSEE, and USFWS will review the Bird Perching Deterrent Plan and provide any comments on the plan to the Lessee within 60 days of its submittal. The Lessee must resolve all comments on the Bird Perching Deterrent Plan to BOEM's and BSEE's satisfaction before the Lessee 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 Lessee based on best management practices applicable to the appropriate operation and safe installation of the devices. The Lessee must submit the Bird Perching Deterrent Plan with the FDR. The Lessee must also provide the location and type of bird-deterrent devices as part of the as-built submittals to BSEE.

5.2.3 Navigation Lighting Upward Illumination Minimization. Conditional on 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 Lessee must provide BOEM, BSEE, and USFWS with a copy of the application to USCG to establish PATON (Section 3.1.1).

5.2.4 Avian and Bat Monitoring Program. The Lessee must develop and implement an Avian and Bat Post-Construction Monitoring Plan (Plan), in coordination with USFWS. Prior to or concurrent with offshore construction activities, including seabed preparation activities, the Lessee must submit an Avian and Bat Post-Construction Monitoring Plan for BOEM and BSEE review. BOEM, BSEE, and USFWS will review the Avian and Bat Post-Construction Monitoring Plan and provide any comments on the plan to the Lessee within 45 days of its submittal. The Lessee must resolve all comments on the Avian and Bat Post-Construction Monitoring Plan to BOEM and BSEE's satisfaction before implementing the plan and before commissioning the first WTG.

5.2.4.1 Monitoring. The Lessee 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 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. The initial phase may also include the deployment of satellite-based tracking

technologies (e.g., Global Positioning System (GPS) or Argos tags) (see USFWS BiOp Monitoring 1.A., p. 11-12 for further details).

5.2.4.2 Annual Monitoring Reports. The Lessee must submit to BOEM, USFWS, 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.

5.2.4.3 Post-Construction Quarterly Progress Reports. During the first 12 months that the Project is fully operational and commissioned (all installed WTGs producing power), the Lessee must submit quarterly progress reports concerning the implementation of the Avian and Bat Post-Construction Monitoring Plan to BOEM, BSEE, and USFWS by the 15th day of the first month following the end of each quarter. The Lessee must include a summary of all work performed, an explanation of overall progress, and any technical problems encountered in the progress reports.

5.2.4.4 Monitoring Plan Revisions. Within 30 days of submitting the annual monitoring report, the Lessee must meet with BOEM, BSEE, 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, and USFWS jointly determine that revisions to the Avian and Bat Post-Construction Monitoring Plan are necessary, the Lessee 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,[13] the Lessee must transmit to BOEM, BSEE, and USFWS recommendations for new mitigation measures and/or monitoring methods. In consultation with USFWS, BOEM 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) and the evolving weight of evidence regarding the likely levels of collision mortality for each listed bird species.

5.2.4.5 Operational Reporting. Upon commissioning of the first WTG, the Lessee must submit to BOEM 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

[13] https://www.boem.gov/renewable-energy/state-activities/coastal-virginia-offshore-wind-commercial-project-final

acquisition 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 Lessee to be privileged or confidential must be clearly marked as confidential business information and will be handled by BOEM and BSEE in a manner consistent with 30 C.F.R. § 585.114.

5.2.5 Raw Data. The Lessee 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, and USFWS upon request for the duration of the Lease. The Lessee 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 and USFWS following the protocols and procedures outlined in the USFWS document entitled *Guidance for Coordination of Data from Avian Tracking Studies* effective at time of COP approval.

5.2.6 Annual Bird/Bat Mortality Reporting. The Lessee must submit an annual report to BOEM, BSEE, 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.[14] The Lessee must also submit to BOEM, BSEE, and USFWS an annual report covering each calendar year, due by January 31, documenting the implementation of any collision measures during the preceding year.

5.2.7 Immediate Reporting. Any occurrence of dead or injured ESA-listed birds or bats must be reported to BOEM, BSEE, and USFWS[15] 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 Lessee 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 Lessee's health and safety standards (see Monitoring Requirements in the USFWS BiOp).

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[14] https://www.usgs.gov/centers/eesc/science/bird-banding-laboratory

[15] Report must be submitted to USFWS's Virginia Law Enforcement Office at 804-771-2883 consistent with the USFWS BiOp. The Lessee must confirm the relevant point of contact before submitting the report and must also confirm that the agencies have received the report.

5.2.8 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 Lessee must provide BOEM 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 BiOp. Within 60 days of BOEM's issuance of the final Collision Minimization Report, the Lessee must participate in a meeting to discuss the report with BOEM, BSEE, and USFWS.

5.3 Compensatory Mitigation for Piping Plover and Red Knot. At least 180 days prior to the commissioning of the first WTG, the Lessee must distribute a Compensatory Mitigation Plan to BOEM, BSEE, U.S. Army Corps of Engineers (USACE), and the USFWS for review and comment. BOEM, BSEE, and USFWS will review the Compensatory Mitigation Plan and provide any comments on the plan to the Lessee within 60 days of its submittal. The Lessee must resolve all comments on the Compensatory Mitigation Plan to BOEM's 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.

5.4 The Lessee must provide annual training to all individuals directly or indirectly responsible for implementing and/or overseeing the Lessee's activities described in the BiOp. The training must review the protection measures outlined in the BiOp and how the conservation measures are to be implemented, species habitat characteristics, and applicable locations for Northern long-eared bat and tri-colored bat.

5.5 The Lessee must notify USFWS of the projected and actual start dates, progress, and completion of the Project. The Lessee must verify that it did not exceed the removal of 117.04 acres of trees contemplated in the BiOp and must confirm that it followed all conservation measures described in the BiOp. The Lessee must provide a report containing this information by December 31 of each year to BOEM, BSEE, and USFWS until the year in which construction is complete.

5.6 Benthic Habitat Monitoring Plan (Planning) (Construction) (Operations). The Lessee must develop and submit to BOEM and BSEE a Benthic Habitat Monitoring Plan (BHMP) within 120 days of COP approval for a 60-day review. The Lessee must resolve all comments on the BHMP to BOEM's 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

Offshore Export Cable Corridor (OECC) will be monitored. The Lessee must share data consistent with its data sharing plan and upon BOEM's or BSEE's request.

5.7 Fisheries Mitigation and Monitoring Plan (Planning) (Construction) (Operations). The Lessee must conduct fisheries monitoring consistent with the Fisheries Mitigation and Monitoring Plan (FMMP) (COP Appendix V-2) to assess fisheries status in the Project area pre-, during, and post-construction. The Lessee must resolve all comments on the FMMP to BOEM's and BSEE's satisfaction prior to implementation of the revised FMMP. The Lessee must submit an annual report to BOEM and BSEE within 90 days of the completion of each year of sampling. The Lessee must share data consistent with its data sharing plan and upon BOEM's or BSEE's request.

5.8 Protected Species Monitoring Plan Conditions (Planning) (Construction) (Operations) (Decommissioning).

5.8.1 The Lessee must submit all required documents related to protected species conditions in Section 5.8.2 through Section 5.8.7 (e.g., passive acoustic monitoring (PAM), pile-driving monitoring plans, Sound Field Verification (SFV), and vessel strike) to BOEM; BSEE via TIMSWeb with a notification email sent to BSEE at protectedspecies@bsee.gov; and NMFS GARFO-PRD.

5.8.2 Pile Driving PAM Plan. The Lessee must submit a Pile-Driving PAM Plan to BOEM, BSEE, and NMFS GARFO-PRD at least 180 days before pile driving is planned. BOEM, BSEE, and NMFS GARFO-PRD will review the plan and will provide comments within 45 days of receipt of the plan. The Lessee must resolve all comments on the plan to BOEM's and BSEE's satisfaction before starting any pile driving. NMFS GARFOPRD may comment to BOEM, BSEE, and the Lessee about whether the plan is consistent with the requirements outlined in the BiOp and its Incidental Take Statement (ITS). If BOEM determines that the plan is inconsistent with those requirements, the Lessee 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, and NMFS GARFO-PRD will discuss a timeline for review and approval of the modified plan. BOEM will notify the Lessee of this timeline.

5.8.2.1 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 (Van Parijs et al., 2021). 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 Protected Species Observers (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 BiOp. The plan must also incorporate the following requirements: If a NARW is detected via real-time PAM, data must be submitted by the Lessee 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 Lessee must submit the completed data templates to NMFS at nmfs.nec.pacmdata@noaa.gov. The Lessee 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 International Organization for Standardization (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 Lessee must submit the completed data templates to NMFS at nmfs.pacmdata@noaa.gov Nmfs.nec.pacmdata@noaa.gov. The Lessee must also send the full acoustic recordings from real-time systems to NOAA's 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.

5.8.3 Long-term Passive Acoustic Monitoring. The Lessee 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 Lessee must conduct continuous[16] recording at least 1 year before construction, during construction, and, as set forth more fully below, for at least 3 but no

[16] Continuous recording in this measure recognizes that PAM devices can be damaged or lost from weather and other ocean uses, mechanical failures, and general maintenance. The Lessee must make every effort to maintain the PAM system as near continuous as possible. If temporal gaps in recording are expected, the lessee must ensure that additional recorders can be deployed to fill gaps.

more than 10 full calendar years of operation[17] to monitor for potential noise impacts. The Lessee must meet with BOEM 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: 1) monitoring conducted to-date, 2) the need for continued monitoring, and 3) 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 Lessee 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 kilometer (km) detection range for their calls. The Lessee may satisfy this condition through either of the options set forth more fully below.

5.8.3.1 Option 1 - Lessee Conducts Long-term Passive Acoustic Monitoring. If the Lessee chooses to comply with Section 5.6.3 using this option, it must conduct PAM, including data processing and archiving, following the Regional Wildlife Science Collaborative (RWSC) best practices[18] 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.

5.8.3.1.1 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 Lessee must ensure that additional recorders can be deployed to fill gaps. The Lessee must use trawl-resistant moorings to ensure that instruments are not lost and must replace any lost instruments as soon as possible. The Lessee must also notify BOEM if instrument loss occurs.

5.8.3.1.2 The Lessee must follow the best practices applicable to monitoring outlined in the RWSC best practices document[19] unless otherwise required through conditions of COP approval. The best practices include engaging with the RWSC, calibrating the instruments, running Quality Assurance/Quality Control (QA/QC) on the raw data, following the templates for reporting species vocalizations,

[17] For the purposes of this condition, operation initiates with the commissioning of the first WTG.

[18] https://rwsc.org/wp-content/uploads/2022/12/RWSC-PAM-Data-Management-Storage-Best-Practices.pdf.

[19] https://rwsc.org/wp-content/uploads/2022/12/RWSC-PAM-Data-Management-Storage-Best-Practices.pdf.

and preparing the data for archiving at the NCEI. Section III of the RWSC best practices document specifies steps for Section 106 compliance, the Lessee must instead follow the conditions outlined in Section 7.9 and the Section 106 Memorandum of Agreement.

5.8.3.1.3 With respect to data processing, the Lessee 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 Lessee 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 Lessee must contact NCEI for guidance for packaging the data and pay the fee.

5.8.3.1.4 Long-term Passive Acoustic Monitoring Plan. The Lessee 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 Lessee must submit to BOEM 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 Lessee prepares the Long-term PAM Plan, it must coordinate with the RWSC. BOEM 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 Lessee to submit a modified Long-term PAM Plan based on feedback from the Bureaus. The Lessee must address all outstanding comments to BOEM's and BSEE's satisfaction and must receive written concurrence from BOEM and/or BSEE. If BOEM or BSEE do not provide comments on the Long-term PAM Plan within 45 days of its submittal, the Lessee may conclusively presume BOEM's and BSEE's concurrence with the Long-term PAM Plan.

5.8.3.2 Option 2 – Financial and Other Contributions to BOEM's Environmental Studies Program.[20] As an alternative to conducting long-term PAM in the Lease Area, the Lessee may opt to enter an agreement with BOEM 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 Lessee'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 Lessee's request, the BOEM will provide an estimate of the necessary amount of the financial contribution. BOEM will also invite the Lessee to contribute to discussions about the scientific approach of the POWERON initiative via the RWSC. The Lessee 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 Lessee with a copy of the raw PAM data collected under this option after the DON has cleared the data for national security concerns.

5.8.4 Marine Mammal and Sea Turtle Monitoring Plan for Pile Driving. The Lessee must submit a Marine Mammal and Sea Turtle Monitoring Plan for Pile Driving to BOEM, BSEE, NMFS-OPR and NMFS GARFO-PRD at least 180 days before foundation impact or vibratory pile driving is planned. BOEM, BSEE, 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, and the Lessee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/Letter of Agreement (LOA), BiOp and ITS. If the plan is inconsistent with these requirements, the Lessee 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, and NMFS will discuss a timeline for review and approval of the modified plan and BOEM will notify the Lessee of this timeline. Under the terms of the NMFS BiOp, the Lessee must obtain BOEM 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.

[20] The Lessee may elect Option 2 initially or during any subsequent calendar year of monitoring, subject to agreement with BOEM and BSEE.

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 Lessee 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 Lessee would determine the number of sea turtles exposed to noise above the 175 decibels (dB) harassment threshold.

5.8.5 Pile Driving Reduced Visibility Monitoring Plan (RVMP). The Lessee must submit the Reduced Visibility Monitoring Plan (also known as the Alternative Monitoring Plan) to BOEM, BSEE, NMFS-OPR, and NMFS GARFO-PRD at least 90 days before pile driving is planned to begin. BOEM, BSEE, and NMFS will review the RVMP and provide comments within 45 days of receipt of the plan. Under the terms of the NMFS BiOp, the Lessee must obtain BOEM and BSEE concurrence with this plan prior to the start of pile driving. The RVMP must describe how the Lessee 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, 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 Lessee 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 as stipulated under the terms of the NMFS BiOp.

5.8.6 Sound Field Verification (SFV) Plan. The Lessee must submit the SFV Plan to BOEM, BSEE, NMFS-OPR, and NMFS GARFOPRD at least 180 days before foundation impact or vibratory pile driving is planned to begin. BOEM, BSEE, and NMFS will review the plan and will provide comments within 45 days of receipt of the plan. NMFS's comments to BOEM, BSEE, and the Lessee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/LOA and BiOp. If BOEM and/or BSEE determine the plan to be inconsistent with these requirements, the Lessee 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 and NMFS will discuss a timeline for review and approval of the modified plan. BOEM will notify the Lessee of this timeline. Under the terms of the NMFS BiOp, the Lessee must obtain BOEM and BSEE concurrence with this plan prior to the start of pile driving. The plan must describe how the Lessee 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 Lessee 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 Lessee 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 BiOp 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 noise mitigation systems (NMS)) that will be applied to reduce sound levels if measured distances are greater than those modeled.

5.8.7 Vessel Strike Avoidance Plan. The Lessee must submit the Vessel Strike Avoidance Plan for protected species to BOEM, BSEE, 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, and NMFS will review the plan and provide comments within 45 days of receipt of the plan. NMFS' comments to BOEM, BSEE, and the Lessee will include a determination as to whether the plan is consistent with the requirements outlined in the final rule/LOA and the BiOp (including Appendix A of the BiOp). If the plan is inconsistent with these requirements, the Lessee 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 and NMFS will discuss a timeline for review and approval of the modified plan, and BOEM will notify the Lessee 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 Lessee 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 MMPA ITA and the BiOp, unless and until the Plan is approved by NMFS-OPR and NMFS GARFO-PRD, all vessels associated with the Project must comply with any applicable speed restrictions.

5.9 Pre-Seabed Disturbance Conditions (Planning) (Construction) (Operations) (Decommissioning).

5.9.1 The Lessee must submit all required documents related to pre-seabed disturbance conditions in Section 5.9.2 through Section 5.9.4 (e.g., anchoring plans, as-placed anchor plats, micrositing plan, scour and cable protection, and post seabed disturbance) to BOEM, BSEE, and NMFS GARFO-HESD.

5.9.2 Anchoring Plans/Plats. The Lessee must prepare and implement an Anchoring Plan/Plat for all areas where anchoring, jack-up barges or buoy placement occurs during construction, operations/maintenance, and decommissioning within 1,640 feet (500 m) of habitats, resources, and submerged infrastructure that are sensitive, including complex habitat;[21] steep slopes with gradients greater than or equal to 10 degrees; boulders greater than or equal to 0.5 m 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 Lessee 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 m 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 Lessee must use mid-line anchor buoys to reduce the amount of anchor chain or line that touches the seabed, unless the Lessee demonstrates, and BOEM 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 Lessee believes there is technical infeasibility for using mid-line anchor buoys, the Lessee must provide a technical analysis to support reasoning for infeasibility, as appropriate, for review and concurrence by BOEM and BSEE.

5.9.2.1 The Lessee must provide the Anchoring Plan for construction related activities (pre-seabed clearance, export cable, inter-array cable) to BOEM and BSEE with notification to NMFS GARFO-HESD for a 60-day review at least 120 days before anchoring activities and construction begins for export and inter-array cables. The Lessee must

[21] Complex habitat for this Project is defined by Project-specific benthic habitat delineations with modifiers to identify habitat that is less resilient to disturbance (hardbottom substrate, hardbottom substrate with epifauna or macroalgae, and vegetated habitats).

resolve all comments on the Anchoring Plan to BOEM's and BSEE's satisfaction before conducting any OCS seabed-disturbing activities that require anchoring. If there are fewer than 120 days between anchoring activities and this COP approval, the Lessee must submit the plan as soon as practicable and no later than 60 days prior to commencing activities.

5.9.2.2 For operations and decommissioning, the Lessee must provide proposed anchoring plats to BOEM and BSEE for review before anchoring activities occur. For decommissioning, the anchoring plat(s) can be provided with the application for decommissioning as required under 30 C.F.R. § 285.906(d). The proposed anchoring plats must include avoidances identified in Section 5.9.2 above and as-placed anchor plats must be submitted per Section 2.22.

5.9.3 Micrositing Plan. The Lessee must prepare and implement a Micrositing Plan that describes how WTG locations, OSS locations, inter-array, and export cable routes will be microsited 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 Lessee must not microsite structure locations in a way that narrows any WTG corridors to less than the distance required by Section 3.1.3. The Micrositing Plan must include a figure for each microsited WTG, OSS, or cable segment, including benthic habitat delineations showing complex habitat and locations of boulders greater than or equal to 0.5 m. For WTGs, OSSs, and cables that cannot be microsited 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 m 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 Lessee must provide analysis for review and concurrence by BOEM and BSEE. The Micrositing Plan must be submitted to BOEM 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 Lessee 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 (Section 2.4), Cable Routings (Section 2.11), and Boulder Identification and Relocation (Section 2.26). The Lessee must resolve all comments on the Micrositing Plan to BOEM's and BSEE's satisfaction prior to implementation of the plan.

5.9.4 Scour and Cable Protection Plan. The Lessee must prepare and implement a Scour and Cable Protection Plan (Plan) that includes descriptions and specifications for all scour and cable protection materials used in complex

habitat and benthic features.[22] Cable protection is currently expected where the OEC crosses existing telecommunications cables. The Lessee must avoid the use of plastics/recycled polyesters/net material (i.e., fronded mattresses), as technically and/or economically feasible or practicable. The Lessee 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 Lessee must submit the Plan to BOEM 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 Lessee 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 and BSEE. The Lessee must resolve all comments on the Plan to BOEM's and BSEE's satisfaction before placement of the scour and cable protection materials.

5.10 Post-Seabed Disturbance Conditions

5.10.1 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 m or less should be completed to determine the height and width of any created berms. The Lessee must capture bathymetry changes greater than 3 feet (1 m) along the cable routes. If there are bathymetric changes in berm height greater than 3 feet (1 m) above grade, the Lessee 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 Lessee 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 and BSEE. The Lessee must submit the Berm Remediation Plan to BOEM and BSEE to coordinate with NMFS GARFO-HESD for a 60-day review within 90 days of completion of the post-construction survey. BOEM 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 Essential Fish Habitat consultations and, if not, will complete additional environmental review and consultations. The Lessee must resolve all comments on the Berm Remediation Plan to BOEM's and BSEE's satisfaction prior to initiating restoration activities.

[22] The Lessee must use Seabed Morphology and Habitat-CMECS interpretation maps depicting areas of complex habitats and benthic features to inform this plan.

5.11 Endangered and Threatened Species Conditions for Fishery Monitoring (Planning) (Construction) (Operations)

5.11.1 General Conditions for All Fisheries Monitoring Surveys.

5.11.2 The Lessee must submit all required documents related to endangered and threatened species conditions for fishery monitoring in Section 5.11.3 through Section 5.11.8 (e.g., marine debris, visual and PSOs, take, and annual reporting) to BOEM, BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov or marinedebris@bsee.gov (if related to marine debris/lost gear), and NMFS GARFO-PRD.

5.11.3 The Lessee 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.

5.11.3.1 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.

5.11.3.2 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 nmi (1,852 m) of sampling location for 15 minutes.

5.11.3.3 The Lessee 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."

5.11.4 The Lessee 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, 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.[23] Biological data, samples, and tagging must occur as outlined below:

23 https://media.fisheries.noaa.gov/2021-07/Take%20Report%20Form%2007162021.pdf?null

5.11.4.1 The Lessee must follow the Sturgeon and Sea Turtle Take Standard Operating Procedures.[24]

5.11.4.2 The Lessee 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, BSEE, and NMFS GARFO-PRD.

5.11.4.3 The Lessee 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.[25]

5.11.4.4 The Lessee must send fin clips to a BOEM approved laboratory capable of performing genetic analysis and assignment to DPS of origin. The Lessee must submit the results of genetic analysis, including assigned DPS of origin, to BOEM, BSEE, and NMFS GARFO-PRD within 6 months of the sample collection.

5.11.4.5 The Lessee 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.[26]

5.11.5 The Lessee 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 Lessee must complete an NMFS Take Report Form[27] for each individual sturgeon and sea turtle and submitted to BOEM, BSEE, and NMFS GARFO-PRD.

5.11.6 The Lessee 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

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[24] https://media.fisheries.noaa.gov/dam-migration/sturgeon_&_sea_turtle_take_sops_external.pdf

[25] https://media.fisheries.noaa.gov/dam-migration/sturgeon_genetics_sampling_revised_june_2019.pdf

[26] https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-take-reporting-programmatics-greater-atlantic

[27] https://media.fisheries.noaa.gov/2021-07/Take%20Report%20Form%2007162021.pdf?null

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:

5.11.6.1 To the extent allowed by sea conditions, the Lessee 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.

5.11.6.2 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.[28] 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.

5.11.6.3 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 Very High Frequency (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.

5.11.6.4 The Lessee 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.[29]

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[28] https://media.fisheries.noaa.gov/dam-migration/sea_turtle_handling_and_resuscitation_measures.pdf

[29] https://media.fisheries.noaa.gov/dam-migration-miss/Resuscitation-Cards-120513.pdf. Lessee shall comply with the version effective at the time of COP approval.

5.11.6.5 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.

5.11.7 The Lessee must provide notification via email to BOEM, BSEE, and NMFS GARFO-PRD within 24 hours of any interaction with a sea turtle or sturgeon and include the NMFS take reporting form.[30] The report must include at a minimum, the following: (1) survey name and applicable information (e.g., vessel name, station number); (2) 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 Lessee must submit reports as soon as possible and must submit late reports with an explanation for the delay.

5.11.8 The Lessee must submit an annual report within 90 days of the completion of each survey season to BOEM, 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.

5.12 Protected Species Training and Coordination (Construction) (Operations) (Decommissioning). Before beginning any in-water activities involving vessel use, pile driving, and HRG surveys, and when new personnel join the work, the Lessee 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.

5.12.1 The Lessee must submit all required documents and reports related to protected species training and coordination conditions in Sections 5.12.2 and 5.12.4 to:

[30] https://media.fisheries.noaa.gov/2021-07/Take%20Report%20Form%2007162021.pdf?null

BOEM, BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov, NMFS-OPR, and NMFS GARFO-PRD.

5.12.2 Vessel Crew and PSO Training Requirements. The Lessee 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 Lessee 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 Lessee must provide the log sheets to BOEM and BSEE upon request. The Lessee 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 Lessee 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 Lessee must post the reporting instructions, including communication channels, in highly visible locations aboard all Project vessels.

5.12.3 PSO Requirements. The Lessee 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.[31] The Lessee must provide training certificates for individual PSOs to BOEM or BSEE upon request. PSOs and PAM operators must be approved by NMFS before the start of a survey. The Lessee 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[32] or for geological and geophysical surveys by sending an inquiry to nmfs.psoreview@noaa.gov.

5.12.4 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.

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[31] https://repository.library.noaa.gov/view/noaa/15851

[32] www.fisheries.noaa.gov/new-england-mid-atlantic/careers-and-opportunities/protected-species-observers

5.13 Vessel Strike Avoidance Conditions (Planning) (Construction) (Operations) (Decommissioning).

5.13.1 The Lessee must submit all required documents related to vessel strike avoidance conditions in Section 5.13.2 through Section 5.13.5 to BOEM, BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov, NMFS-OPR, and NMFS GARFO-PRD.

5.13.2 PSO Requirements. The Lessee 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.

5.13.2.1 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 Lessee 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.

5.13.3 Vessel Communication of Threatened and Endangered Species Sightings. The Lessee 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.

5.13.3.1 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 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.

5.13.3.2 Any observations of any large whale by any of the Lessee's staff or contractors, including vessel crew, must be communicated immediately to PSOs and all vessel operators to increase situational awareness.

5.13.4 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 BiOp and the MMPA ITA. Within 30 days after issuance of the MMPA ITA, the Lessee must submit a summary of all vessel speed requirements applicable to Project activities for review and approval by BOEM and BSEE. BOEM and BSEE will review the summary, and provide comments, if any, to the Lessee within 60 days of their submittal to BOEM and BSEE. The Lessee must resolve all comments to BOEM's and BSEE's satisfaction.

5.13.5 Vessel Strike Avoidance of Sea Turtles.

5.13.5.1 On all vessels operating north of the Virginia/North Carolina border between June 1 and November 30, the Lessee 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.

5.13.5.2 On all vessels operating south of the Virginia/North Carolina border, the Lessee 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.

5.13.5.3 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.

5.13.5.4 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.

5.13.5.5 The trained lookout must maintain a vigilant watch and monitor a Vessel Strike Avoidance Zone (500 m) 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.

5.13.5.6 If a sea turtle is sighted within 100 m or less of the operating vessel's forward path, the vessel operator must slow down to 4 knots (kts) (unless operationally unsafe) and then proceed away from the turtle at

a speed of 4 kts or less until there is a separation distance of at least 100 m, at which time the vessel may resume normal operations. If a sea turtle is sighted within 50 m 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 kts 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.

5.13.5.7 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 kts while transiting through such areas.

5.13.5.8 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.

5.13.5.9 If the Lessee is unable to comply with Sections 5.13.5.1 through 5.13.5.8 due to operational safety, the Lessee must be report any such incident to BSEE and NMFS GARFO-PRD within 24 hours.

5.13.5.10 Vessel transits to and from the Lease 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.

5.14 WTG and OSS Foundation Installation Conditions (Construction) (Operations). Monopiles must be no larger than 9.5 m in diameter. Pin piles must be no larger than 2.8 m in diameter. For all monopiles and pin piles, the Lessee 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 installations.

5.14.1 The Lessee must submit all required documents related to WTG and OSS foundation installation conditions in Section 5.14.2 through Section 5.14.11 to: BOEM, BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov, NMFS-OPR, and NMFS GARFO-PRD.

5.14.2 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 Lessee 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 BiOp, the Lessee 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 (Section 5.8.5) as part of the Pile-Driving and Marine Mammal Monitoring Plan that reliably demonstrates the efficacy of protected species detection.

5.14.3 Noise Abatement Systems. The Lessee must deploy dual noise abatement systems, also known as NMS or Noise Attenuation Systems (NAS), that are capable of achieving, at a minimum, 10 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:

5.14.3.1 A single bubble curtain must not be used unless paired with another noise attenuation device.

5.14.3.2 A double big bubble curtain may be used without being paired with another noise attenuation device.

5.14.3.3 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.

5.14.3.4 The Lessee 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.

5.14.3.5 The Lessee 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 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, BSEE, and NMFS GARFO-PRD.

5.14.3.6 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 and model number), number of operational compressors, performance data from each compressor (including Revolutions Per Minute), pressure, start times, and stop times), free air delivery (m^3/min), total hose air volume (m^3/(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.

5.14.4 Use of PSOs and PAM Operators. The Lessee 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 NARW.

5.14.5 Clearance and Shutdown Zones. The Lessee 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 below.

Table 5-1: Pile-Driving Clearance and Shutdown Zones

Species	Clearance Zone (Meters)	Shutdown Zone (Meters)
Impact Pile Driving of Foundations		
NARW – visual detection	Minimum visibility zone plus any additional distance observable by the visual PSOs	Minimum visibility zone plus any additional distance observable by the visual PSOs
NARW – PAM	Any distance	Any distance
Fin, Sei, and Sperm Whale – WTG	5,100 [1]	1,750
Sea Turtles	1,000	500
Vibratory Pile Driving of Foundations		
NARW- visual detection	Any distance	Any distance
Fin, Sei, and Sperm Whale	1,000	1,000
Sea Turtles	1,000	100

Notes: 1 Distance for a one pile per day scenario. The two pile per day scenario is 6,500 m. All other categories have the same values for either one or two piles per day.

5.14.6 Sound Field Verification for WTGs. The Lessee 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 Lessee must:

5.14.6.1 Identify additional measures that the Lessee determines are expected to reduce sound levels to the modeled distances (e.g., add noise attenuation device, adjust hammer operations, adjust NMS); provide an explanation to BOEM, BSEE, NMFS GARFO-PRD and NMFS-OPR supporting that determination. BOEM and BSEE will coordinate with NMFS GARFO-PRD and NMFS-OPR. Following BOEM and BSEE's concurrence with the determination, the Lessee 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).

5.14.6.2 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 Lessee must submit a proposed monitoring plan describing the location of all PSOs for concurrence by BOEM and BSEE in coordination with NMFS. In the event that the clearance or shutdown zone for sea turtles needs to be expanded, the Lessee must submit a proposed monitoring plan for the expanded zones to BOEM and BSEE for concurrence in coordination with NMFS GARFO-PRD.

5.14.6.3 If after implementation of the measures outlined above, results from any subsequent SFV measurements remain larger than those modeled assuming 10 dB attenuation, the Lessee must identify additional measures such as noise attenuation device(s) and/or modifications to the pile-driving operations (e.g., reduced hammer energy) that it determines 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 Lessee must provide an explanation to BOEM and BSEE in coordination with NMFS GARFO-PRD and NMFS-OPR supporting that determination and, following concurrence from BOEM 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 Section 5.14.6.2.

5.14.6.4 If, following installation of the pile with additional noise mitigation measures required by Section 5.14.6.3, SFV results indicate that any isopleths of concern are still larger than those modeled assuming 10 dB attenuation, the Lessee, 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 USACE supporting that proposal and requesting concurrence to proceed. Following concurrence from BOEM and BSEE in coordination with NMFS-OPR and NMFS GARFO-PRD, the Lessee must implement those measures and any expanded clearance and shutdown zone sizes (and any required additional PSOs) consistent with the requirements of Section 5.14.6.2. Additionally, the Lessee 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).

5.14.6.4.1 If no additional measures are identified for implementation, or if the SFV required by Section 5.8.6 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.

5.14.6.5 Following installation of the pile with additional noise attenuation measures required by Section 5.14.6.2, if SFV results indicate that all isopleths of concern are within distances to isopleths of concern modeled assuming 10 dB attenuation, the Lessee 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 Lessee must continue to implement the additional sound attenuation measures. The Lessee 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.

5.14.7 Abbreviated SFV Monitoring. The Lessee 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 Lessee must conduct this monitoring by placing a single acoustic recorder approximately 750 m from the pile to record sounds during pile driving. The Lessee must submit the monitoring data and results of measured sound levels in the weekly PSO pile-driving reports. The Lessee 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 be used by the Lessee and federal agencies to identify if harassment threshold distances or injury or behavioral disturbance distances were exceeded. If harassment threshold distance has been exceeded the Lessee 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 Lessee must meet with BOEM, BSEE, NMFS, and USACE within two business days of submission of a report that includes an exceedance unless an alternative meeting date is agreed to by the parties.

5.14.8 Sound Field Verification for OSSs. The Lessee must implement 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 Lessee must, before the second OSS foundation is installed:

5.14.8.1 Identify measures that the Lessee determines are expected to reduce sound levels to the modeled distances (e.g., adding a noise attenuation device, adjusting hammer operations, adjusting NMS); provide an explanation to BOEM, 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.

5.14.8.2 If any of the SFV measurements indicate that the distances to level A thresholds for ESA-listed whales or permanent threshold shift (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 4,921 feet (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 Lessee must submit a proposed monitoring plan describing the location of all PSOs for concurrence by BOEM 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 Lessee must submit a proposed monitoring plan for the expanded zones for concurrence by BOEM and BSEE in coordination with NMFS GARFO.

5.14.8.3 If, after implementation of Section 5.14.8.1, any subsequent SFV measurements for OSS foundation 2 are still larger than those modeled assuming 10 dB attenuation, the Lessee 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 Lessee must provide an explanation to BOEM, BSEE, NMFS GARFO-PRD, and NMFS-OPR supporting that proposal and deploy those additional noise attenuation measures on any subsequent piles that are installed following concurrence from BOEM 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 of Section 5.14.8.2.

5.14.8.4 If, following installation of the OSS with additional noise attenuation measures required by Section 5.14.8.3, SFV results indicate that any isopleths of concern are still larger than those modeled assuming 10 dB attenuation, the Lessee 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 and/or BSEE in consultation with NMFS GARFO-PRD, the Lessee must implement those measures, along with the expanded clearance and shutdown zones and additional PSOs (see Section 5.14.8.3) for the third OSS.

5.14.8.5 If the Lessee is unable to identify additional measures for implementation in Section 5.14.8.3, 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 by Section 5.14.8.3, if SFV results indicate that all isopleths of concern are within distances to isopleths of concern modeled assuming 10 dB attenuation, the Lessee must continue to implement the additional sound attenuation measures for OSS 3 and, upon BOEM and BSEE's concurrence in consultation with NMFS GARFO, the Lessee can revert to the original clearance and shutdown zones or continue with the expanded clearance and shutdown zones with additional PSOs.

5.14.9 Clearance or Shutdown Zone Adjustment After SFV. The Lessee must conduct SFV consistent with the SFV Plan. BOEM and BSEE, in cooperation with NMFS-OPR and NMFS GARFO-PRD, may approve the Lessee'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 m, or 500 m for sea turtles. This stipulation does not apply to the clearance or shutdown zones for NARWs.

5.14.10 Pile-Driving Clearance Zones for Marine Mammals and Sea Turtles. The Lessee 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 Lessee 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 have 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.

5.14.10.1 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.

5.14.11 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 Lessee 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 Lessee must file a report with BSEE, NMFS-OPR, and NMFS GARFO-PRD if any ESA-listed species is observed within the identified shutdown zone during active pile driving as described in Section 5.14.5.

5.14.11.1 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 – 15 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 Lessee 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 lessee may not restart pile driving until the NARW is no longer observed or 30 minutes have elapsed since the last detection. The Lessee must use soft start protocols upon re-starting pile driving.

5.14.11.2 Soft Start for Pile Driving. The Lessee 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 or 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).

5.15 High Resolution Geophysical (HRG) Survey Conditions for Marine Mammals and Sea Turtles (Planning) (Construction) (Operations) (Decommissioning).

5.15.1 The Lessee must submit all required documents related to HRG survey conditions in Section 5.15.2 through Section 5.16.4 to BOEM, to BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov, to NMFS-OPR, and to NMFS GARFO-PRD.

5.15.2 Use of PSOs. The Lessee must employ qualified NMFS-approved PSOs during HRG surveys related to the Project which use 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.

Table 5-2: HRG Survey Clearance and Shutdown Zones

Species	Clearance Zone (Meters)	Shutdown Zone (Meters)
NARW – visual detections	500	500
Fin, sei, and sperm whale	500	500
Sea Turtles	500	100

5.15.3 HRG Clearance Procedures. The Lessee 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.

5.15.3.1 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.

5.15.4 HRG Shutdown Procedures. Once the survey has commenced, the Lessee must shut down boomers, sparkers, and compressed high-intensity radiated pulses (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 3,280 feet (1,000 m) 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 1,640-foot (500-m) zone for sea turtles, 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 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 and BSEE's satisfaction.

5.15.5 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.

5.15.6 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.

5.15.6.1 The Lessee must not initiate ramp-up until the clearance process has been completed (see Table 5-2, HRG Survey Clearance and Shutdown Zones 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).

5.15.7 The Lessee 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.

5.15.8 During daylight hours when survey equipment is not operating, the Lessee 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.

5.16 Reporting (Planning) (Construction) (Operations) (Decommissioning).

5.16.1 The Lessee must submit all required documents related to ESA and non-ESA listed marine species reporting conditions in Section 5.16.2 through Section 5.16.6 to BOEM, to BSEE via TIMSWeb with a notification email sent to protectedspecies@bsee.gov, to NMFS-OPR, and to NMFS GARFO-PRD.

5.16.2 Pre-Construction Reporting. Within 10 business days of BSEE issuing a no objection to the complete FDR/FIR[33] (but at least 30 days prior to the initiation of pile driving) or the soonest time the relevant information is available, the Lessee must provide BOEM, 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 Lessee within 30 days of NMFS GARFO-PRD's receipt of the information identified here whether ESA Section 7 consultation with NMFS must be reinitiated.

5.16.3 Situational Reporting.

5.16.3.1 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 Lessee must immediately report sighting information to BOEM, BSEE, NMFS (866-755-6622), the USCG via channel 16 and through the WhaleAlert

[33] "Complete" is defined as the submission of all final FIR or FDR asset packages.

app (http://www.whalealert.org/). The Lessee 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.

5.16.3.1.1 If a NARW is detected at any time by PSOs/PAM Operators via PAM, the Lessee 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.

5.16.3.1.2 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 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.

5.16.3.2 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 Lessee must file a report with BOEM, 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 Lessee 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 Lessee report must include an explanation for that determination and the measures that were implemented (e.g., reduced hammer energy).

5.16.3.3 Detected or Impacted Protected Species Reporting. The Lessee 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 BSEE (via TIMSWeb and notification email to protectedspecies@bsee.gov) and NMFS. The Lessee 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:

- Contact information (name, phone number, etc.), time, date, and location (coordinates) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- 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.

5.16.3.3.1 The Lessee 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.

5.16.3.3.2 The Lessee 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, BSEE, NMFS GARFO-PRD, and NMFS New England/Mid-Atlantic Regional Stranding Hotline (866-755-6622) as soon as feasible.

Separately, the Lessee must report the incident, if in the Greater Atlantic region (ME to VA) to NMFS GARFO-PRD (nmfs.gar.incidentaltake@noaa.gov) or if in the Southeast region (NC-FL) to NMFS SERO (secmammalreports@noaa.gov) as soon as feasible. The Lessee must include in the report the following information:

- Time, date, and location of the incident;
- 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);
- Vessel strike reporter information (name, affiliation, email for person completing the report);
- Vessel strike witness (if different than reporter) information (name, affiliation, phone number, platform for person witnessing the event);
- Vessel name and/or MMSI number;
- Vessel size and motor configuration (inboard, outboard, jet propulsion);
- Vessel's speed leading up to and during the incident;
- Vessel's course/heading and what operations were being conducted (if applicable);
- Part of vessel that struck whale (if known);
- Vessel damage notes;
- Status of all sound sources in use;
- If animal was seen before strike event;
- Behavior of animal before strike event;
- 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;
- Environmental conditions (e.g., wind speed and direction, Beaufort scale sea state, cloud cover, visibility) immediately preceding the strike;
- Estimated (or actual, if known) size and length of animal that was struck;

- Description of the behavior of the marine mammal immediately preceding and following the strike;
- If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;
- Other animal details if known (e.g., length, sex, age class);
- 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);
- To the extent practicable, photographs or video footage of the animal(s); and
- Any additional notes the witness may have from the interaction.

5.16.3.4 Detected or Impacted Dead Non-ESA-Listed Fish. The Lessee must report any occurrence of at least 10 dead non-ESA-listed fish within established shutdown or monitoring zones to BOEM 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 Lessee must confirm the relevant point of contact prior to reporting and confirm the reporting was received.

5.16.3.5 SFV Interim Reports. The Lessee 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, BSEE, and NMFS GARFO-PRD in an interim report. If technical or other issues prevent submission within 48 hours, the Lessee 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 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 the Lessee 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 Lessee to explain performance issues.

5.16.3.5.1 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.

5.16.3.5.2 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.

5.16.4 Weekly Pile-Driving Reports. The Lessee 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).

5.16.4.1 Weekly monitoring reports must include: Summaries of pile-driving activities and piles installed, including, start and stop times, pile locations, NMS performance (as described in 5.14.3), 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.

5.16.4.2 The Lessee 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 and BSEE, in coordination with NMFS, before those protocols are implemented.

5.16.5 Monthly Reports. The Lessee 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.

5.16.5.1 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. PSOs must fill out report forms for each vessel with PSOs aboard. Unfilled cells must be left empty and must not contain "NA." The reports must be submitted in Word and Excel formats (not as a pdf). Enter all dates as YYYY-MM-DD. Enter all times in 24 Hour Coordinated Universal Time (UTC) as HH:MM. Create a new entry on the Effort form each time a pile segment changes or weather conditions change, and at least once an hour as a minimum. Review and revise all forms for completeness and resolve incomplete data fields before submittal. The file name must follow this format: Lease#_ ProjectName_PSOData_YearMonthDayto YearMonthDay.xls. Data fields must be reported in Excel format. Data categories must include Project, Operations, Monitoring Effort, and Detection, as further specified below. 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/QCd. 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, which is available upon request.

Required data fields include:

Project Information:

- Project name
- Lease number
- State coastal zones
- PSO contractors

- Vessel names
- Reporting dates (YYYY-MM-DD)
- Visual monitoring equipment used (e.g., bionics, magnification, IR cameras, etc.)
- Distance finding method used
- PSO names (Last, First) and training
- Observation height above sea surface

Operations Information:

- Date (YYYY-MM-DD)
- Hammer type used (make and model)
- Greatest hammer power used for each pile
- Pile identifier and pile number for the day (e.g., pile 2 of 3 for the day)
- Pile diameters
- Pile length
- Total number of strikes used to install each pile
- Total hammer energy used to install each pile
- Pile locations (latitude and longitude)
- Number of vessel transits
- Types of vessels used
- Vessel routes used

Monitoring Effort Information:

- Date (YYYY-MM-DD)
- Noise source (ON=Hammer On; OFF=Hammer Off)
- PSO name(s) (Last, First)
- If visual, how many PSOs on watch at one time?
- Time pre-clearance visual monitoring began in UTC (HH:MM)
- Time pre-clearance monitoring ended in UTC (HH:MM)
- Time pre-clearance PAM monitoring began in UTC (HH:MM)
- Time PAM monitoring ended in UTC (HH:MM)
- Duration of pre-clearance PAM and visual monitoring
- Time power-up/ramp-up began
- Time equipment full power was reached
- Duration of power-up/ramp-up
- Time pile driving began (hammer on)
- Time pile-driving activity ended (hammer off)
- Duration of activity
- Duration of visual detection
- Wind speed (kts), from direction

- Swell height (m)
- Water depth (m)
- Visibility (km)
- Glare severity
- Latitude (decimal degrees), longitude (decimal degrees)
- Compass heading of vessel (degrees)
- Beaufort scale
- Precipitation
- Cloud coverage (%)
- Did a shutdown/power-down occur?
- Time shutdown was called for (UTC)
- Time equipment was shut down (UTC)
- Habitat or prey observations
- Marine debris sighted

Detection Information:

- Date (YYYY-MM-DD)
- Sighting ID (V01, V02, or sequential sighting number for that day; multiple sightings of the same animal or group should use the same ID)
- Date and time at first detection in UTC (YY-MM- DDT HH:MM)
- Time at last detection in UTC (YY-MM-DDT HH:MM)
- PSO name(s) (Last, First)
- Effort (ON=Hammer On; OFF=Hammer Off)
- If visual, how many PSOs on watch at one time?
- Start time of observations
- End time of observations
- Duration of visual observation
- Wind speed (kts), from direction
- Swell height (m)
- Water depth (m)
- Visibility (km)
- Glare severity
- Latitude (decimal degrees), longitude (decimal degrees)
- Compass heading of vessel (degrees)
- Beaufort scale
- Precipitation
- Cloud coverage (%)
- Sightings including common name, scientific name, or family
- Certainty of identification
- Number of adults
- Number of juveniles

- Total number of animals
- Bearing to animals when first detected (ship heading+ clock face)
- Bearing to animals at closest approach (ship heading+ clock face)
- Bearing to animal at final detection (ship heading+ clock face)
- Range from vessel and pile (reticle distance in m)
- Description (include features such as overall size; shape of head; color and pattern; size, shape, and position of dorsal fin; height, direction, and shape of blow, etc.)
- Detection narrative (note behavior, especially changes in relation to activity and distance from service vessel)
- Direction of animal travel in first approach (relative to vessel and pile)
- Behaviors observed: indicate behaviors and behavioral changes observed in sequential order (use behavioral codes)
- If any bow-riding behavior observed, record total duration during detection (UTC HH:MM)
- Initial heading of animals (degrees)
- Final heading of animals (degrees)
- Shutdown zone size during detection (m)
- Was the animal inside the shutdown zone?
- Closest distance to vessel and pile (reticle distance in m)
- Time at closest approach to vessel and pile (UTC HH:MM)
- Time animal entered shutdown zone (UTC HH:MM)
- Time animal left shutdown zone (UTC HH:MM)
- If observed/detected during ramp-up/power-up: first distance (reticle distance in m), closest distance (reticle distance in meters), last distance (reticle distance in meters), behavior at final detection
- Did a shutdown/power-down occur?
- Time shutdown was called for (UTC HH:MM)
- Time equipment was shut down (UTC HH:MM)
- Detections with PAM

5.16.6 Annual Reports. Beginning in Year 2 of operations, the Lessee 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, BSEE, NMFS-OPR, and NMFS GARFO-PRD. The Lessee 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, BOEM, and BSEE, the frequency of reports can be changed.

6 CONDITIONS RELATED TO COMMERCIAL FISHERIES AND FOR-HIRE RECREATIONAL FISHING

6.1 Fisheries Compensation and Mitigation Funds (Planning) (Construction) (Operations) (Decommissioning). No later than 1 year after the approval of the COP, unless a different schedule is agreed to as a component of a separate agreement between the Lessee and the Commonwealth of Virginia, the Lessee must establish and implement a direct compensation program to provide monetary compensation to commercial and for-hire fishermen impacted by the Project and funded in accordance with Section 6.1.1 and 6.1.2 below.

6.1.1 Direct Compensation Program. The Lessee must establish the compensation/ mitigation funds for compensation of income losses by commercial or for-hire fishermen directly related to the Project as described in the Lessee's 2023 Fisheries Compensation and Mitigation Plan (COP Appendix V-3).

6.1.1.1 Compensatory Mitigation Fund – includes up to $40,000,000 for specific claims made by commercial or for-hire recreational fishermen and fishery-related shoreside businesses in relation to income loss due to construction closures or presence of Project structures.

6.1.1.2 Surfclam Compensatory Mitigation Fund – includes up to $3,000,000 for specific claims made by Atlantic surfclam commercial fishing businesses or related shoreside businesses, in relation to income loss due to construction closures or presence of Project structures.

6.1.2 Shoreside Support Services. At least 90 days prior to establishment of the Direct Compensation Program described in Section 6.1.1, the Lessee must submit to BOEM a Shoreside Support Services report for a 60-day review and approval. The report must include a description of the structure of the Direct Compensation Fund, and an analysis of the impacts of the Project to shoreside support services (such as seafood processing and vessel repair services) within communities near the ports listed below.

- Virginia Beach, Virginia
- North Kingstown, Rhode Island
- Newport News, Virginia
- Davisville, Rhode Island
- Chincoteague, Virginia
- Hampton, Virginia
- Wanchese, North Carolina

- Cape May, New Jersey
- Engelhard, North Carolina
- Norfolk, Virginia

6.1.3 Reporting. By January 31 of each year, the Lessee must submit to BOEM and BSEE an annual report demonstrating implementation of the Direct Compensation Program. The report must include the following: the Fund charter, including the governance structure, audit and public reporting procedures; documentation regarding the funding account, including the dollar amount, establishment date, financial institution, and owner of the account; and standards for paying compensatory mitigation for direct impacts to commercial and for-hire fishers and related shoreside businesses resulting from all phases of the Project development on the Lease Area (post-ROD pre-construction, construction, operation, and decommissioning); and the number of claims processed, approved and denied. The Lessee must publicly report an annual audit. The Lessee must submit to BOEM and BSEE verification that the agreed upon compensatory fisheries mitigation fund required by an agreement between Virginia and Lessee and described in the Lessee's 2023 Fisheries Compensation and Mitigation Plan is established and funded.

6.1.4 Notification. The Lessee must notify BOEM and BSEE of any compensation and mitigation fund agreements into which the state and the Lessee have entered. The Lessee must request that the Administrator(s) of the direct compensation program(s) notify BOEM when the direct compensation program(s) has been established and is processing claims. Notification can be accomplished by the Administrator(s) transmitting to BOEM an annual financial statement of the direct compensation program(s). The Administrator(s) must submit the required notification by January 31 of each year, beginning on the second anniversary of the Project's Commercial Operations Date as defined by Addendum "B" of the Lease. The notification must be signed by the Administrator(s).

6.2 Fisheries Gear Loss Compensation (Planning) (Construction) (Operations). The Lessee must maintain throughout the life of the Project, a fisheries gear loss claims procedure as described in in Appendix V-3 of the COP, Fisheries Compensatory Mitigation Plan. The fisheries gear loss and damage claims procedure must be available to all fishermen impacted by Project activities or infrastructure, regardless of homeport.

6.3 Federal Survey Mitigation Program (Planning) (Construction) (Operations) (Decommissioning). There are 14 NMFS scientific surveys that overlap with wind energy development in the northeast region. Nine of these surveys overlap with the Project. Consistent with NMFS and BOEM survey mitigation strategy actions 1.3.1, 1.3.2, 2.1.1, and 2.1.2 in the *NOAA Fisheries and BOEM Federal Survey Mitigation*

Implementation Strategy - Northeast US Region,[34] within 120 days of COP approval, the Lessee must submit to BOEM a survey mitigation agreement between NMFS and the Lessee. The survey mitigation agreement must describe how the Lessee will mitigate the Project impacts on the 9 NMFS surveys. The Lessee must conduct activities in accordance with such agreement. If the Lessee and NMFS fail to reach a survey mitigation agreement, then the Lessee must submit a survey mitigation plan to BOEM and NMFS that is consistent with the mitigation activities, actions, and procedures described in Sections 6.3.1 and 6.3.2 below, within 180 days of COP approval. BOEM will review the survey mitigation plan in consultation with NMFS Northeast Fisheries Science Center (NEFSC), and the Lessee must resolve comments to BOEM's satisfaction and must conduct activities in accordance with the plan.

6.3.1 As soon as reasonably practicable, but no later than 30 days after the issuance of the Project's COP approval, the Lessee must initiate coordination with NMFS NEFSC to develop the survey mitigation agreement described above. Mitigation activities specified under the agreement must be designed to mitigate the Project impacts on the following NMFS NEFSC surveys: (a) Spring Bottom Trawl survey; (b) Autumn Multi-species Bottom Trawl survey; (c) Ecosystem Monitoring survey; (d) Aerial marine mammal and sea turtle survey; (e) Shipboard marine mammal and sea turtle survey; (f) Atlantic surfclam survey; (g) Coastal shark bottom longline survey; (h) Cooperative shark tagging program; and (h) Atlantic Sea scallop survey. At a minimum, the survey mitigation agreement must describe actions to address impacts on the affected surveys due to the preclusion of sampling platforms and impacts on statistical designs. NMFS has determined that the Project area is a discrete stratum for surveys that use a random stratified design. This agreement may also consider other anticipated Project impacts on NMFS surveys, such as changes in habitat and increased operational costs due to loss of sampling efficiencies.

6.3.2 The survey mitigation agreement must identify activities that will result in the generation of data equivalent to data generated by NMFS' affected surveys for the duration of the Project. The survey mitigation agreement must describe the implementation procedures by which the Lessee will work with NEFSC to generate, share, and manage the data required by NEFSC for each of the surveys impacted by the Project, as mutually agreed upon between the Lessee and NMFS/NEFSC. The survey mitigation agreement must also describe the Lessee's participation in the NMFS NEFSC Northeast Survey Mitigation Program to support activities that address regional-level impacts for the surveys listed above.

6.4 Environmental Data Sharing with Federally Recognized Tribal Nations (Planning) (Construction) (Operations) (Decommissioning). No later than 90 days after COP

[34] Hare, J.A., Blythe, B.J., Ford, K.H., Godfrey-McKee, S., Hooker, B.R., Jensen, B.M., Lipsky, A., Nachman, C., Pfeiffer, L., Rasser, M. and Renshaw, K., 2022. NOAA Fisheries and BOEM Federal Survey Mitigation Implementation Strategy - Northeast US Region. NOAA Technical Memorandum 292. Woods Hole, MA. 33 pp.

approval, the Lessee must make a request to both the BSEE Tribal Liaison Officer and the Eastern Seaboard Tribal Liaison at the same email address, tribalengagement@bsee.gov, to coordinate with federally recognized Tribal Nations with geographic, cultural, or ancestral ties to the project area (hereinafter "interested Tribal Nation"), including, but not limited to: the Chickahominy Indian Tribe, the Chickahominy Indian Tribe Eastern Division, the Delaware Nation, the Delaware Tribe of Indians, the Monacan Indian Nation, the Nansemond Indian Nation, the Pamunkey Indian Tribe, the Rappahannock Tribe, and the Upper Mattaponi Indian Tribe. The purpose of this coordination is to (1) solicit Tribal Nation interest in participating as an environmental liaison during construction and/or maintenance activities, so the environmental liaison can safely monitor, and participate in postmortem examinations of mortality events, as a result of these activities; and (2) provide open access to the following: reports generated as a result of the Fisheries Research and Monitoring Plan; reports of NARW sightings; injured or dead protected species reporting (sea turtles, NARW, sturgeon); NARW PAM monitoring; PSO reports (e.g., pile-driving reports); pile-driving schedules and schedule changes; and any interim and final SFV reports, and its associated data. If an interested Tribal Nation expresses interest in participating as an environmental liaison, the Lessee must provide the interested Tribal Nation information regarding training(s), certification(s), and safety measures, required for participation. Environmental liaisons must be invited to monitor/participate from a safe platform, such as a vessel. The Lessee must provide to the interested Tribal Nation, in a manner suitable to the Tribal Nation, access to all ESA reports, Post Review Discovery Plans, and other documents listed in this paragraph no later than 30 days after the information becomes available. The Lessee may redact or withhold a document(s) listed in this paragraph when it includes information that the Lessee would not generally make publicly available and the disclosure of which the Lessee considers to be contrary to the Lessee's commercial interests. The Lessee must submit a justification for the request to redact/withhold in writing to the BSEE Tribal Liaison Officer and the Eastern Seaboard Tribal Liaison at tribalengagement@bsee.gov. Only upon approval of such request may the document be redacted/withheld.

7 VISUAL AND CULTURAL RESOURCES CONDITIONS

7.1 Reporting (Planning) (Construction) (Operations) (Decommissioning). The Lessee must submit all monitoring, reporting (annual, immediate, or post-discovery), and survey requirements related to cultural resources to BOEM, and to BSEE (via TIMSWeb with a notification email sent to env-compliance-arc@bsee.gov).

7.2 Avoidance of Known and Potential Shipwrecks, Debris Fields, and Ancient Submerged Landform Features (ASLFs) (Planning) (Construction) (Operations) (Decommissioning). The Lessee must avoid known and potential shipwrecks, potentially significant debris fields, and ASLFs as described below. The Lessee must identify avoidance requirements on proposed anchoring plats, as-placed plats, and drawings associated with seabed disturbances (e.g., relevant FDR/FIR documents for export cables, inter-array cables, WTGs, etc.). If the Lessee determines that avoidance is not possible, the Lessee must notify BOEM and BSEE prior to disturbing the seabed in the excluded area. In such instances, BOEM will notify the Lessee of any additional

requirements, which may include additional measures to resolve adverse effects. If any vessel conducting work on behalf of the Lessee disturbs the seabed within the avoidance areas noted below, the Lessee must submit an incident report to BOEM and BSEE within 24 hours.

7.2.1 Avoidance of Marine Archaeological Resources. The Lessee must comply with horizontal protective buffers recommended by the Qualified Marine Archaeologist (QMA) for all 31 identified marine archaeological resources such that protective buffers are provided for:

7.2.1.1 Six (6) marine archaeological resources (i.e., Targets 8, 10, 11, 14, 15, and 22) measuring a distance of no fewer than 164 feet (50 meters) from the known visible extent of each resource;

7.2.1.2 Twenty-four (24) marine archaeological resources (i.e., Targets 1–7, 9, 12, 13, 16–21, 23–31) measuring a distance of no fewer than 164 feet (50 meters) from the known center point of each resource; and

7.2.1.3 One (1) marine archaeological resource (i.e., Target 16) measuring a distance of no fewer than 459 feet (140 meters) from the known center point of the resource.

7.2.2 Avoidance of Ancient Submerged Landform Features. The Lessee must comply with horizontal protective buffers recommended by the QMA for all six (6) identified ASLFs such that protective buffers are provided for:

7.2.2.1 P-02, located in the marine Area of Potential Effects (APE), measuring a distance of no fewer than 141 feet (43 meters) from the known extent of the resource, for a total avoidance area of 266.7 acres (107.9 hectares);

7.2.2.2 P-03, located in the marine APE, measuring a distance of no fewer than 164 feet (50 meters) from the known extent of the resource, for a total avoidance area of 9.91 acres (4.01 hectares);

7.2.2.3 P-04-A, located in the marine APE, measuring a distance of no fewer than 164 feet (50 meters) from the known extent of the resource, for a total avoidance area of 3.94 acres (1.59 hectares);

7.2.2.4 P-04-B, located in the marine APE, measuring a distance of no fewer than 164 feet (50 meters) from the known extent of the resource, for a total avoidance area of 22.05 acres (8.92 hectares);

7.2.2.5 P-01, located outside of the marine APE, measuring a distance of no fewer than 164 feet (50 meters) from the known extent of the resource, for a total avoidance area of 10.71 acres (4.33 hectares); and

7.2.2.6 P-05, located outside of the marine APE, measuring a distance of no fewer than 164 feet (50 meters) from the known extent of the resource, for a total avoidance area of 5.45 acres (2.2 hectares).

7.3 Apply Paint Color No Lighter than RAL (Reichs-Ausschuß für Lieferbedingungen und Gütesicherung) 9010 Pure White and No Darker than RAL 7035 Light Grey to the WTGs (Planning) (Construction) (Operations). The Lessee must color the WTGs an off white/grey color (no lighter than RAL 9010 Pure White and no darker than RAL 7035 Light Grey) prior to installation. The Lessee must confirm the planned paint color as part of the FDR and confirm the WTG was painted consistent with this condition as part of the final FIR.

7.4 Implementation of Minimization and Mitigation Measures to Resolve Adverse Effects to 24 Historic Properties (Planning) (Construction). The Lessee must execute all aspects of this condition of COP approval consistent with Stipulation III.A of the Section 106 MOA. Reporting associated with Section 106 MOA compliance must be included in the Annual Certification. The Lessee must mitigate adverse effects to the following 24 historic properties:

Atlantic Wildfowl Heritage Museum/De Witt Cottage

Cavalier Hotel and Beach Club

Camp Pendleton/State Military Reservation Historic District

Chesapeake Bay Bridge-Tunnel

Chesapeake Light Tower

Cutty Sark Motel Efficiencies

Econo Lodge/Empress Motel

Hilton Washington Inn/Quality Inn and Suites

House (100 54th Street)

House (4910 Ocean Front Avenue)

House (5302 Ocean Front Avenue)

House (7900 Ocean Front Avenue)

House (8304–8306 Ocean Front Avenue)

House (8600 Ocean Front Avenue)

Fort Story Historic District (Joint Expeditionary Base Little Creek – Fort Story)

Oceans II Condominiums/Aeolus Motel

Seahawk Motel

Seatack Lifesaving Station/U.S. Coast Guard Station

Virginia House

Cavalier Shores Historic District

Sandbridge Historic District

Currituck Beach Lighthouse

First Cape Henry Lighthouse

Second Cape Henry Lighthouse

7.5 Annual Monitoring and Reporting on the Section 106 MOA (Planning) (Construction) (Operations) (Decommissioning). By January 31 of each year, the Lessee must submit for BOEM's review a summary report detailing work undertaken pursuant to the Section 106 MOA during the preceding year. The Lessee must address any BOEM comments and after BOEM's review and agreement, the Lessee must share the summary report with all participating consulting parties identified in Attachment 2 of the Section 106 MOA. The report must include a description of how the stipulations relating to avoidance and minimization measures (Section 106 MOA Stipulations I and II) were implemented; any scheduling changes proposed; any problems encountered; and any disputes and objections received in the Lessee's efforts to carry out the terms of the Section 106 MOA. The Lessee may satisfy this reporting requirement by providing the relevant portions of the Annual Certification required under 30 C.F.R. § 285.633.

7.6 Implementation of Post-Review Discovery Plans (Planning) (Construction) (Operations) (Decommissioning). If properties are discovered that may be historically significant or unanticipated effects on historic properties are found, the Lessee must implement the Post-Review Discovery Plans found in Section 106 MOA Attachment 8 (post-review discovery plan for marine archaeology) and Attachment 9 (post-review discovery plan for terrestrial archaeology).

7.7 Marine Post-Review Discoveries (Construction) (Operations) (Decommissioning). In the event of a post-review discovery of a property or unanticipated effects to a historic property prior to or during construction, operation, maintenance, or decommissioning of the Project, the Lessee must implement the following actions:

7.7.1 Immediately halt seabed-disturbing activities within the area of discovery.

7.7.2 As soon as practicable and no later than 72 hours after the discovery, notify BOEM and BSEE (at env-compliance-arc@bsee.gov and via TIMSWeb) with a written report, describing the discovery in detail, including a narrative description of the manner of discovery (e.g., date, time, heading, weather, information from logs); a narrative description of the potential resource, including measurements; images that may have been captured; portions of raw and processed datasets relevant to the discovery area; and any other information considered by the Lessee to be relevant to BOEM's or BSEE's understanding of the potential resource. BOEM and/or BSEE may request additional information and/or request revisions to the report.

7.7.3 Keep the location of the discovery confidential and take no action that may adversely affect the archaeological resource until BOEM has made an evaluation and instructs the Lessee on how to proceed.

7.7.4 Conduct any additional investigations and submit documentation as directed by BOEM to determine if the resource is eligible for listing in the National Register of Historic Places (NRHP) (30 C.F.R. § 585.802(b)). The Lessee must satisfy this requirement only if (1) the site has been impacted by the Lessee's Project activities; and/or (2) impacts to the site or to the APE cannot be avoided. If investigations indicate that the resource is potentially eligible for listing in the NRHP, BOEM will instruct the Lessee on avoidance, minimization, or mitigation of adverse effects.

7.7.5 If there is any evidence that the discovery appears to contain materials or artifacts associated with a federally recognized Tribal Nation or appears to be a preserved burial site, the Lessee must contact the federally recognized Tribal Nation as identified in the notification lists included in the Post-Review Discovery Plan within 72 hours of the discovery with details of what is known about the discovery and consult with the federally recognized Tribal Nation pursuant to the Post-Review Discovery Plan.

7.7.6 If BOEM or BSEE incurs costs in addressing the discovery, under Section 110(g) of the NHPA, BOEM or BSEE may charge the Lessee reasonable costs for carrying out preservation responsibilities under OCSLA (30 C.F.R. § 585.802(c)-(d)).

7.8 No Impact Without Approval Emergency Situations (Construction) (Operations) (Decommissioning). In the event of an emergency or disaster that is declared by the President or the Governors of Virginia or North Carolina, which represents an imminent threat to public health or safety, or creates a hazardous condition due to impacts from the Project's infrastructure damaged during the emergency and affecting historic properties in the APEs, BOEM and/or BSEE, with the assistance of the Lessee, will notify the consulting federally recognized Tribal Nations, SHPOs, and the Advisory Council on Historic Preservation (ACHP) of the condition that has initiated the situation and the measures taken to respond to the emergency or hazardous condition consistent with the Section 106 MOA. BOEM and/or BSEE will make this notification as soon as reasonably possible, but no later than 48 hours from when the Bureau(s) becomes aware of the emergency or disaster. Should the consulting federally recognized Tribal Nations, SHPOs, or the ACHP desire to provide technical assistance to BOEM and/or BSEE, they will submit comments within 7 days from notification if the nature of the emergency or hazardous condition allows for such coordination.

7.8.1 No Impact Without Approval. The Lessee may not knowingly impact a potential archaeologicalresource without BOEM's and BSEE's prior concurrence. If a possible impact to a potential archaeological resource occurs, the Lessee must immediately halt operations; report the incident with 24 hours to BOEM and BSEE; and provide a written report within 72 hours to BOEM and BSEE.

7.9 PAM Placement Review (Construction) (Operations) (Decommissioning). The Lessee may only place PAM systems in locations where an analysis of the results of geophysical surveys has been completed. This analysis must include a determination by a QMA as to whether any potential archaeological resources are present in the area. This activity may have already been performed as part of the Lessee's submission of archaeological resources reports in support of its approved COP. Except as allowed by BOEM under Stipulation 4.3.6 of Addendum C of the Lease and Section 7.8 above, the PAM placement activities must avoid potential archaeological resources by a minimum of 328 feet (100 m), and the avoidance distance must be calculated from the maximum discernible extent of the archaeological resource. As-placed PAM system plats must be submitted to BSEE within 90 days of placement.

7.9.1 If PAM placement activities impact potential historic properties, the Lessee must take the actions described in All Post-Review Discoveries (Section 7.7).

7.9.2 If PAM placement activities impact potential historic properties identified in the archaeological surveys without BOEM's prior authorization, the Lessee and the Qualified Marine Archaeologist who prepared the archaeological resources report must provide to BOEM and BSEE a statement documenting the extent of these impacts. This statement must be made to BOEM and BSEE consistent with Stipulation 4.3.7 of Addendum C of the Lease and Section 7.7, above. BOEM may require the Lessee to implement additional mitigation measures as appropriate based on a review of the results and supporting information.

8 AIR QUALITY CONDITIONS

8.1 Reporting (Construction) (Operations) (Decommissioning). The Lessee must submit all monitoring, reporting, and survey requirements related to air quality to BOEM, to BSEE via TIMSWeb with a notification email sent to oswsubmittals@bsee.gov, USFWS at jaron_ming@fws.gov, and the U.S. Environmental Protection Agency (EPA) at opila.marycate@epa.gov. The Lessee must confirm the relevant point of contact prior to reporting and confirmation of reporting receipt.

8.2 Sulfur Hexafluoride (SF_6) Leak Rate Monitoring and Detection (Construction) (Operations) (Decommissioning). The Lessee must adhere to International Electrotechnical Commission and requirements in EPA's OCS air permits for SF_6 leak detection and monitoring requirements.

8.2.1 The Lessee must use enclosed-pressure SF6 circuit breakers (or switches) and create alarms based on the pressure readings in the breakers and switches, so leaks can be detected when substantial sulfur hexafluoride leakage occurs. Upon a detectable pressure drop that is greater than 10 percent of the original pressure (accounting for ambient air conditions), the Lessee must implement a plan of action within 30 days of the leakage event detailing the corrective measures required to fix the compliance deficiency and a timeline for completion if completion of repairs within 30 days is not feasible. If an event requires the

removal of SF6, the affected major component(s) must be replaced with new component(s).

8.2.2 The Lessee must report to BOEM and BSEE any detectible pressure drop that is greater than 10 percent as soon as practicable and no later than 72 hours after the discovery and provide an estimated timeframe for maintenance or replacement.

8.2.3 The Lessee must provide a summary in the Lessee's Annual Certification under 30 C.F.R. § 285.633 of observed SF6 leak rates in the past year and a summary of any leaks greater than 0.1 percent by weight (for the 13.8 kV switches) and 0.5 percent by weight (for all other switches) and the associated maintenance or repair actions taken and their timeframe from detection to completion.

8.2.4 National Ambient Air Quality Standards and PSD Class I and Class II Air Quality Increments. The Lessee is required under the Clean Air Act to obtain a permit for OCS sources and as a consequence must demonstrate that the air quality impacts from emissions of both the construction, and operation and maintenance phases must be within the National Ambient Air Quality Standards and Prevention of Significant Deterioration of Air Quality Increments. This demonstration must be submitted and approved by EPA prior to the issuance of the draft OCS Air Quality Permit. If any requirement in Section 8 of these conditions is inconsistent with the terms of EPA's permit, the language in EPA's permit will prevail.

ATTACHMENT 1: LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
ALARP	As Low as Reasonably Practical
APE	Area of Potential Effects
ASLF	Ancient Submerged Landform Feature
ASR	Airport Surveillance Radar
BHMP	Benthic Habitat Monitoring Plan
BiOp	Biological Opinion
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CBRA	Cable Burial Risk Assessment
C.F.R.	Code of Federal Regulations
CHIRPs	compressed high-intensity radiated pulses
COP	Construction and Operations Plan
CVA	Certified Verification Agents
CVOW	Coastal Virginia Offshore Wind
CZMA	Coastal Zone Management Act
dB	decibels
DGPS	Differential Global Positioning System
DoD	Department of Defense
DOI	Department of the Interior
DON	Department of the Navy
DPS	distinct population segment
DTS	Desktop Study
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FDR	Facility Design Report
FEIS	Final Environmental Impact Statement
FIR	Fabrication and Installation Report
FMMP	Fisheries Mitigation and Monitoring Plan
GARFO	Greater Atlantic Fisheries Office
GDP	Gross Domestic Product
GIS	Geographic Information System
GPS	Global Positioning System
HESD	Habitat and Ecosystem Division
HF	high frequency
HRG	high resolution geophysical
IC	Incident Commander

ICS	Incident Command System
IFC	issued for construction
IMT	Incident Management Team
IOOS	U.S. Integrated Ocean Observing System
IR	infrared
ITA	Incidental Take Authorization(s)
ITS	Incidental Take Statement
km	kilometer(s)
KP	kilometer post
kts	knots
Lease	commercial lease OCS-A 0483
LNM	Local Notice to Mariners
LOA	Letter of Agreement
m	meter(s)
m^2	meters squared
MEC	Munitions and Explosive of Concern
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
Motus	Motus Wildlife Tracking System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NARW	North Atlantic right whale
NAS	Naval Air Station or Noise Attenuation System
NAWCAD	Naval Air Warfare Center Aviation Division
NCEI	National Centers for Environmental Information
NEFSC	Northeast Fisheries Science Center
NHPA	National Historical Preservation Act
nmi	nautical miles
NMFS	National Marine Fisheries Service
NMS	noise mitigation systems
NOAA	National Oceanic and Atmospheric Administration
NORAD	North American Aerospace Defense Command
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OEM	Original Equipment Manufacturer
OPR	Office of Protected Resources
OSPD	Oil Spill Preparedness Division
OSRO	Oil Spill Removal Organization
OSRP	Oil Spill Response Plan
OSS	offshore substation

PAM	Passive Acoustic Monitoring or Passive Acoustic Monitor(s)
PATON	Private Aids to Navigation
PIT	passive integrated transponder
POWERON	Partnership for an Offshore Wind Energy Regional Observation Network
Project	Coastal Virginia Offshore Wind Commercial Export Cable Project
PSO	Protected Species Observer
PTS	permanent threshold shift
QA/QC	quality assurance/quality control
QI	Qualified Individual
QMA	Qualified Marine Archaeologist
RAL	Reichs-Ausschuß für Lieferbedingungen und Gütesicherung
RAM	Radar Adverse-Impact Management rms root mean square
ROD	Record of Decision
RVMP	Reduced Visibility Monitoring Plan
RWSC	Regional Wildlife Science Collaborative
SEL	sound exposure level(s)
SF_6	Sulfur Hexafluoride
SFV	Sound Field Verification
SMS	Safety Management System
SROT	Spill Response Operating Team
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFFC	United States Fleet Forces Command
USFWS	United States Fish and Wildlife Service
UAS	unmanned aircraft systems
UTC	Coordinated Universal Time
UXO	unexploded ordnance
VHF	Very High Frequency
WCD	worst-case discharge
WTG	wind turbine generator