Kitty Hawk Wind

AVANGRID

Construction and Operations Plan

Appendix I - Oil Spill Response Plan

September 30, 2022

Submitted by
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Submitted to
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AVANGRID

Appendix I – Oil Spill Response Plan

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Prepared by:	Checked by:	Approved by:
Kitty Hawk Wind AVANGRID		
September 30, 2022	**September 30, 2022**	**September 30, 2022**

Revision Summary				
Rev	**Date**	**Prepared by**	**Checked by**	**Approved by**
01	11 Dec 2020	Mark Marien	Tetra Tech, Inc.	Brian Benito Jr.
02	30 Sep 2022	Avangrid Renewables, LLC	Atma Khalsa	Mark Marien

Description of Revisions			
Rev	**Page**	**Section**	**Description**
01	All	All	Submitted to BOEM
02	Few	Various	Updated based on Project name

Owner/operator of facility:	Kitty Hawk Wind, LLC					
Facility name:	Kitty Hawk North Wind Project					
Facility mailing address:	75 Arlington Street, 7th Floor, Boston, Massachusetts 02116					
Facility phone number:	TBD	**Latitude:**	N 36.387			
SIC code:	4911	**Longitude:**	W -75.219			
Largest above-ground oil storage capacity (gal): TBD		**Maximum oil storage capacity (gal):** 129,269 for ESP and 4,501 per wind turbine generator (WTG)				
Number of aboveground oil storage tanks: TBD		**Worst case oil discharge amount (gal):** 129,269 for ESP				
Facility distance to navigable water. Mark the appropriate line:						
0-1/4 mile: X	1/4 -1/2 mile:	1/2-1 mile:	>1 mile:			
Applicability of Substantial Harm Criteria						
Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?			YES	X	NO	
Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?			YES		NO	X
Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?			YES		NO	X
Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake?			YES		NO	X
Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?			YES		NO	X

MANAGEMENT CERTIFICATION

This plan has been developed for Kitty Hawk Wind, LLC to prevent and/or control the spills of oil. Kitty Hawk Wind, LLC herein commits the necessary resources to fully prepare and implement this plan and has obtained through contract the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or substantial threat of such a discharge.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate and complete.

Signature	Title
Name	Date

Plan Distribution

Plan Number	Plan Holder	Location
1	Qualified Individual	75 Arlington Street, 7th Floor Boston, Massachusetts 02116
2	Alternate Qualified Individual	TBD
3	Alternate Qualified Individual	TBD
4	Alternate Qualified Individual	TBD
5	Operation Center	TBD
6	BOEM Gulf of Mexico OCS and Atlantic Activities	1201 Elmwood Park Boulevard New Orleans, LA 70123-2394
7	EPA Region 4	EPA Region 4 Emergency Planning and Response Branch Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW Atlanta, Georgia 30303
8	USCG Fifth District, Sector Virginia	USCG Fifth District, Sector Virginia 4000 Coast Guard Blvd Portsmouth, Virginia 23703

30 CFR 254.30(a): Biennial OSRP Review

Date	Name of Reviewer &Title	Signature

30 CFR 254.30(b): Revision Record

Revision Number	Revision Date	Pages and/or Sections Affected	Description of Revision

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Abbreviations & Definitions

Acronym	Definition
ACP	Area Contingency Plan
AQI	Alternate Qualified Individual
bbl	barrel of oil
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CFR	Code of Federal Regulations
CTV	crew transfer vessel
EPA	Environmental Protection Agency
ESP	electrical service platform
FOSC	Federal On-Scene Coordinator
ICS	Incident Command System
IMT	Incident Management Team
km	kilometers
Lease Area	the designated Renewable Energy Lease Area OCS-A 0508
m	meters
MW	megawatt
NCDEQ	North Carolina Department of Environmental Quality
NCP	National Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
OCS	Outer Continental Shelf
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSPD	BSEE Oil Spill Preparedness Division
OSRO	Oil Spill Removal Organization
OSRP	Oil Spill Response Plan
Project	Kitty Hawk North Wind Project
PREP	Preparedness for Response Exercise Program
QI	Qualified Individual
RCP	Regional Contingency Plan
RRT	Regional Response Team
the Company	Kitty Hawk Wind, LLC
USCG	United States Coast Guard
VEOC	Virginia Emergency Operations Center
Wind Development Area	approximately 40 percent of the Lease Area in the northwest corner (19,814 hectares) closest to shore
WTG	wind turbine generator

Appendix I Oil Spill Response Plan

I.1 Plan Introduction Elements

I.1.1 Purpose and Scope of Plan Changes

This Oil Spill Response Plan (OSRP) has been prepared for Kitty Hawk Wind, LLC (the Company). The Company, a wholly owned subsidiary of Avangrid Renewables, LLC, proposes to construct, own, and operate the Kitty Hawk North Wind Project (hereafter referred to as the Project). The Project will be located in the designated Renewable Energy Lease Area OCS-A 0508 (Lease Area). The Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) of Lease Area OCS-A 0508 was awarded through the Bureau of Ocean Energy Management (BOEM) competitive renewable energy lease auction of the Wind Energy Area offshore of North Carolina. The Lease Area covers 49,536 hectares and is located 44 kilometers (km) offshore of Corolla, North Carolina.

The Company proposes to develop approximately 40 percent of the Lease Area, an area located in the northwest corner closest to shore (19,814 hectares; the Wind Development Area). The Project will connect from the electrical service platform (ESP) through offshore export cables (within a designated corridor) and onshore export cables to the new onshore substation in Virginia Beach, Virginia, where the renewable electricity generated will be transmitted to the electric grid. The worst case oil discharge associated with the Project is conservatively assessed as a catastrophic release of all oil contents from the topple of the approximately 800-megawatt (MW) ESP located within the Wind Development Area.

The oil sources in the wind turbine generators (WTGs) include the general oil for hydraulics, gear box, yaw gears, transformers, etc. and bio-degradable or highly refined mineral transformer oil, which total approximately 4,501 gallons per WTG. Oil sources in the ESP include bio-degradable or highly refined mineral transformer oil to power transformers, reactors, auxiliary/earthing transformers, and a grounding reactor; lubricant oil for the crane[1] and an emergency generator; and hydraulic oil for the platform crane which total approximately 129,269 gallons.

The Wind Development Area is located in the OCS, as defined by 30 Code of Federal Regulations (CFR) 254.6 and Section 2 of the Submerged Lands Act (43 United States Code 1301). Therefore, this plan has been written in accordance with the requirements of 30 CFR Part 254, Subpart B, Oil Spill Response Plans for Outer Continental Shelf Facilities. In accordance with 30 CFR 254, the OSRP demonstrates that the Company can respond effectively in the unlikely event that oil is discharged in the Wind Development Area.

The purpose of this OSRP is to provide a written procedure for directing a plan of action in the event of a discharge of oil in the Wind Development Area. The discharge may be the result of a spill, accident, natural disaster, or civilian threat This OSRP adopts procedures to allow for a uniform plan of action that will assist in a systematic and orderly manner of response to any oil discharge incident. This plan of action will minimize confusion and indecision, prevent extensive damage to the Project or injury to personnel, and minimize exposure to personnel within or outside of the Wind Development Area. Routine training and exercises regarding the content of this plan will provide the confidence needed for employees to perform their assigned duties if such an event occurs. A designated Qualified Individual (QI) and Alternate Qualified Individuals (AQI) are considered Emergency Coordinators. Personnel, through the use of this OSRP, will utilize all resources necessary to bring any discharge under control. In order to prepare for such control, all personnel will be well trained and knowledgeable as to their various roles during a release.

[1] Approximate volume of oil to be determined during the design phase.

The final OSRP will be prepared considering the National Oil and Hazardous Substances Contingency Plan (40 CFR §300), or National Contingency Plan (NCP) and the Region III and Region IV Regional Response Teams (RRT) Regional Contingency Plans (RCP). The North Carolina and Virginia Area Contingency Plans (ACP) are also referenced and will be incorporated into the final version of the OSRP. The RRT III RCP is available at:

https://nrt.org/sites/72/files/2019-11-20_Final_RRT3_%20RCP_rev1.pdf.

The RRT IV RCP is available at:

https://r4.ercloud.org/r4rrt/wp-content/uploads/2018/04/rcp.pdf.

The OSRP is consistent with these plans in that it provides a method and process for communication, coordination, containment, removal, and mitigation of pollution and other emergencies. The specific guidelines presented in this plan have been carefully thought out, prepared in accordance with safe practices, and are intended to prepare personnel to respond to oil spills and other environmental emergencies. This plan has the full approval of the Company at a level of authority to commit the necessary resources to implement this plan.

Specifically, this OSRP:

- Identifies the QIs or Person in Charge having full authority to implement this response plan;
- Requires immediate communication with the appropriate federal, state and local officials, and entities/persons providing personnel and equipment;
- Identifies, and ensures by contract or other means, the availability of personnel and equipment necessary to remove a worst case discharge and mitigate or prevent a substantial threat of such a discharge; noting that the specific Oil Spill Removal Organizations (OSROs) need to be selected; and
- Describes training, equipment testing, periodic unannounced drills, and response actions.

I.1.2 Regulatory Applicability

The NCP, RRT III and IV RCPs, and the North Carolina and Virginia ACPs were reviewed, and this plan was written to comply with all federal, state, and local oil spill response regulations.

I.1.3 General Facility Information

The Wind Development Area is located on property in the OCS in the northwestern portion of BOEM Lease Area OCS-A 0508. The Wind Development is located 44 km offshore of Corolla, North Carolina. The Project is depicted in Figure I.1-1. The mailing address for the Company is 75 Arlington Street, 7th Floor, Boston, Massachusetts 02116.

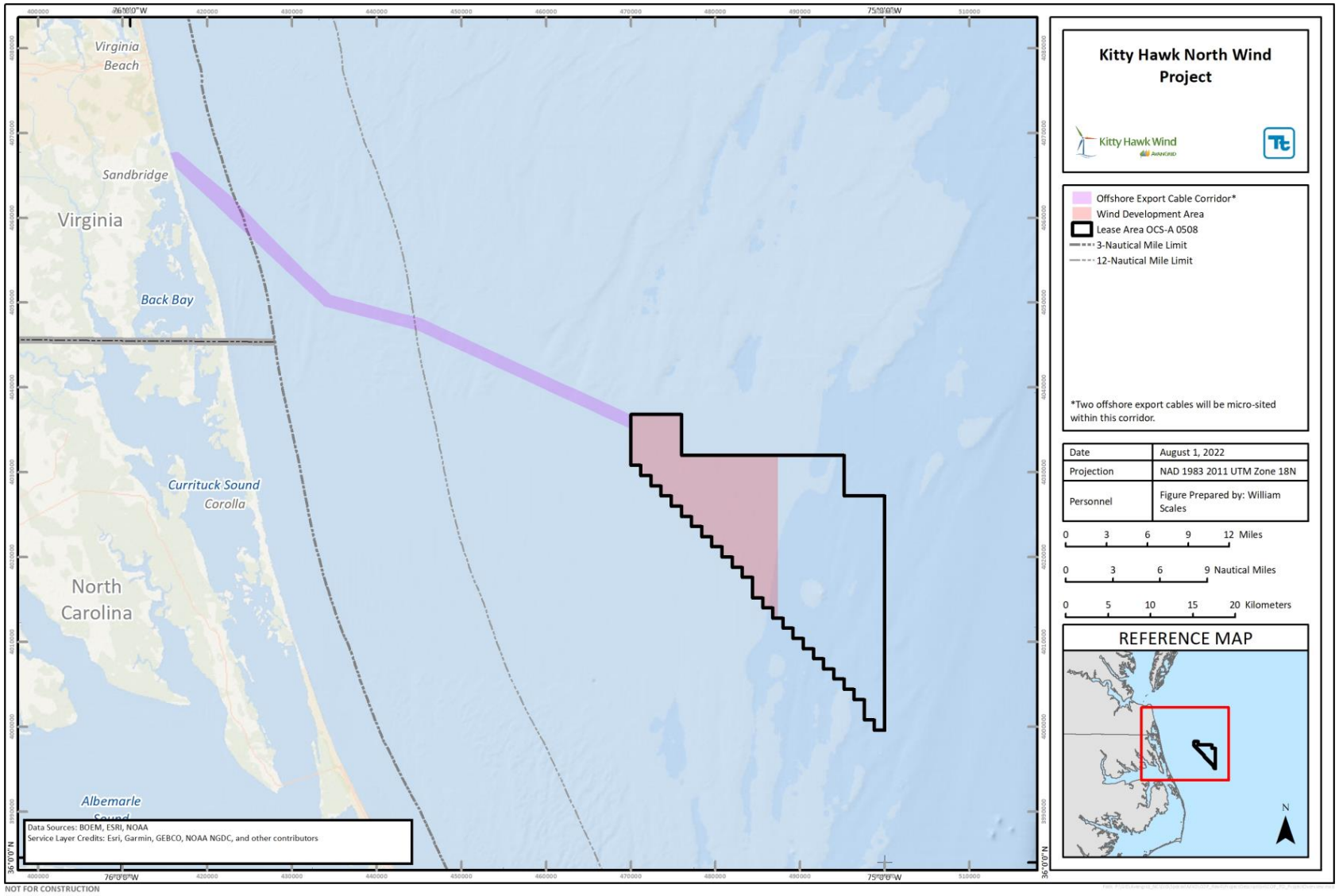

Figure I.I.1-1 Offshore Project Overview

The Project consists of WTGs, one ESP, and associated foundations; inter-array and export cables; and onshore facilities, including one onshore substation. The sources of oil in the WTGs include the generator and 66kV transformer, which total approximately 4,501 gallons (107 barrels [bbl]). Oil sources in the ESP include power transformers, reactors, auxiliary/earthing transformers, an emergency generator, and a platform crane. Oil sources for the ESP total approximately 129,269 gallons (3,078 bbl).

Table I.1-1 provides general information for the Project as it pertains to planning for potential oil spills. Attachments 1, 3, and 7 provide discussion of facility operations in greater detail regarding equipment description, drainage, secondary containment, and emergency planning scenarios.

I.1.4 Plan Review and Revision

In accordance with 30 CFR §254.30, the OSRP must be reviewed at least every two years from its effective date. It is important to note that this is a living document that will be updated as project details change. Documentation of this review will be provided in the Review Table presented at the front of this OSRP. If the review does not result in modifications to the OSRP, the Chief of the Bureau of Safety and Environmental Enforcement (BSEE), an agency of the US Department of the Interior, should be notified that there are no changes. The Chief of the BSEE Oil Spill Preparedness Division (Chief, OSPD) or designee must be notified in writing.

The OSRP must be modified and submitted to the Chief, OSPD for approval within 15 days when the following occurs:

- A change occurs which significantly reduces response capabilities;
- A significant change occurs in the worst case discharge scenario or in the type of oil being handled, stored, or transported at the facility;
- A change in the name(s) or capabilities of the OSROs cited in the OSRP;
- A significant change to the ACP(s) for the region; or
- The Chief, OSPD requires that you resubmit your OSRP if it has become outdated, numerous revisions have made its use difficult, or if the OSRP has significant inadequacies.

Table I.1-1 Facility Summary Information

Category	Information
Facility Owner	Kitty Hawk Wind, LLC
Facility Name	Kitty Hawk North Wind Project
Facility Mailing Address	75 Arlington Street, 7th Floor Boston, Massachusetts 02116
Facility Qualified Individual	XX [to be determined]
Facility Phone Number	XXX-XXX-XXXX
E-mail Address	XX@XX.com
Latitude	N 36.387
Longitude	W -75.219
SIC Code	4911
Wind Turbine Generators (WTGs)	• WTGs will range up to 20 MW. • Largest oil source in the WTGs is the 66-kilovolt transformer: 1,585 gallons • Total oil storage is 4,501 gallons • WTGs are equipped with secondary containment which is sized according with the largest container.
Electrical Service Platform (ESP): Emergency Generators	• Emergency generators contain lubrication oil totaling 15 gallons
ESP: Diesel Tank	• Diesel storage tank: 5,696 gallons
ESP: Transformers and Reactors	• ESP will have power transformers and auxiliary/earthing transformers, shunt reactors, and grounding reactor • Transformer and reactor oil totals 123,210 gallons
ESP: Other	• Naphthenic oil for platform crane: To be defined during detailed design
Operations and Maintenance (O&M) Facility Options	• Hampton Roads, Virginia; • Rudee Inlet, Virginia; • Lynnhaven Inlet, Virginia; • Little Creek, Virginia; and • Cape Charles, Virginia.
Oil Storage Start-Up Date	Proposed 2025
Worst Case Discharge Volume a/	129,269 gallons
Maximum Most Probable Discharge Volume (United States Coast Guard [USCG]) b/	12,927 gallons

Category	Information
Average Most Probable Discharge Volume (USCG) b/	1,293 gallons
Oil Spill Removal Organization (OSRO)	To Be Determined
Notes: a/ Criteria established in 30 CFR 254.26 is for oil production platform facilities and pipeline facilities only. Total volume of oils present on the ESP is used here as a worst case discharge volume. b/ Definitions in 33 CFR 155.1020 are based percentage of cargo from a vessel during oil transfer operation.	

I.2 Core Plan Elements

I.2.1 Discovery and Initial Response

Detection of a spill or emergency is the first step in a response. There are several methods by which an emergency situation at the Wind Development Area may be discovered including the following:

- Reported by company personnel;
- Abnormal operating conditions observed by operator; or
- Reported by private citizens or by public officials.

In every case, it is important to collect accurate information and immediately notify the On-Duty Supervisor and any affected area personnel.

Initial response will take place as indicated in Table I.2-1 - Initial Response Actions Checklist. The Initial Notification Data Sheet Form (Attachment 4) will be completed by the On-Duty Supervisor while discussing the incident when it is initially reported by the person detecting the spill/discharge. Information not immediately known may be added to the form as it becomes available.

The On-Duty Supervisor will notify the QI or AQI upon receiving notification of an emergency event. The QI, AQI, or designee will make notifications as discussed in Section I.2.2 to federal, state, and local agencies (Figure I.2-1 and Table I.2-3) immediately and shall assure that all required documentation is kept.

When making the initial notifications to the On-Duty Supervisor and affected personnel, one should attempt to provide the following information:

- Name of caller and callback number;
- Exact location and nature of the incident (e.g. fire, oil spill);
- Time of incident;
- Name and quantity of material(s) involved, or to the extent known;
- The extent of personal injuries, damage and/or fire, if any;
- The possible hazards to human health, or the environment, outside the facility;
- Body of water or area affected;
- Quantity in water (size and color of slick or sheen) or amount released to the land or atmosphere;
- Present weather conditions-wind speed and direction, movement of slick or sheen, current/tide;

- Potential for fire; and
- Action being taken to control the discharge.

A log should be maintained which documents the history of the events and communications that occur during the response (see Attachment 4). It is important to remember that the log may become instrumental in legal proceedings, therefore:

- Record only facts, do not speculate.
- Do not criticize the efforts and/or methods of other people/operations.
- Do not speculate on the cause of the spill.
- If an error is made in an entry, do not erase; draw a line through it, add the correct entry above or below it and initial the change.
- Always evaluate safety throughout the response actions.

Table I.2-1 Initial Response Checklist

Action	Comments
First Person on Scene	
Take personal protective measures and/or distance.	
Identify and control source if possible (close valve, turn off pump, blind the flange). Eliminate ignition sources.	
Notify the On-Duty Supervisor.	
Notify the affected personnel of the incident.	
Warn personnel in the area and enforce safety and security measures.	
If possible, implement countermeasures to control the emergency. If personal health and safety is not assured, do not attempt to reenter the emergency site.	
Designate a Staging Area where the Emergency Response personnel and equipment can safely report to without becoming directly exposed to the emergency release (until QI arrives).	
On-Duty Supervisor	
Activate local alarms and evacuate non-essential personnel.	
Notify QI.	
Initiate defensive countermeasures and safety systems to control the emergency (booms, sorbent material, loose dirt, sandbags, or other available materials). Eliminate ignition sources.	
Initiate Emergency Response notification system.	
Dispatch response resources as needed.	
Monitor and or facilitate emergency communications until QI arrives.	
Keep the public a safe distance from the release.	

Action	Comments
Qualified Individual (QI) or Designee	
Notify federal, state and local agencies and other external stakeholders.	
Establish On-Scene Command and an Incident Command Post	
Assess situation and classify incident.	
Perform air monitoring surveys prior to entering a release area.	
Determine extent and movement of the release.	
Identify sensitive areas and determine protection priorities.	
Request additional or specialized response resources.	
Establish Isolation Zones (Hot, Warm, Cold) and Direct On-Scene Response Operations.	
Keep the public a safe distance from the release.	

I.2.2 Notifications

I.2.2.1 Internal Notifications

The individual discovering the spill will call the On-Duty Supervisor immediately and report initial facts about the incident. The On-Duty Supervisor will record the facts (see forms in Attachment 4) and immediately (within 15 minutes) notify the QI. Table I.2-2 lists the QIs and their 24-hour contact information. The QI or designated alternate on duty will be available 24-hours per day and capable of arriving to the Wind Development Area in a reasonable amount of time after contacting (typically within one hour).

Table I.2-2 Qualified Individuals

Name	Position	Cell	Email
Person A	Qualified Individual, Title	(XXX) XXX-XXXX	XX@XX.com
Person B	Alternate Qualified Individual, Title	(XXX) XXX-XXXX	XX@XX.com
Person C	Alternate Qualified Individual Title	(XXX) XXX-XXXX	XX@XX.com
Person D	Alternate Qualified Individual, Title	(XXX) XXX-XXXX	XX@XX.com

I.2.2.2 External Notifications

Any person or organization responsible for an oil spill is required to notify the federal government when the amount reaches a federally-determined limit. This federally-determined limit is based on the "Discharge of Oil" regulation. The Discharge of Oil regulation is more commonly known as the "sheen rule." Under the Clean Water Act, this rule provides the framework for determining whether an oil spill should be reported to the federal government. In particular, the regulation requires the person in charge of a facility or vessel responsible for discharging oil that may be "harmful to the public health or welfare" to report the spill to the federal government. The regulation establishes the criteria for determining whether an oil spill may be harmful to public health or welfare, thereby triggering the reporting requirements, as follows:

- Discharges that cause a sheen or discoloration on the surface of a body of water;
- Discharges that violate applicable water quality standards; and
- Discharges that cause a sludge or emulsion to be deposited beneath the surface of the water or on adjoining shorelines.

Anyone who discovers an oil spill meeting any of the above criteria must contact the National Response Center (NRC) at (800) 424-8802 as soon as knowledgeable of the spill. Notifying the NRC meets all federal reporting requirements. The NRC is staffed 24 hours a day, 365 days a year by U.S. Coast Guard personnel who will ask the reporting source to provide as much information about the incident as possible. The following information should be reported, if it is known:

- Name, location, organization, and telephone number
- Name and address of the party responsible for the incident; or name of the carrier or vessel, the railcar/truck number, or other identifying information
- Date and time of the incident
- Location of the incident
- Source and cause of the spill
- Types of material(s) spilled
- Quantity of materials spilled
- Medium (e.g. land, water) affected by spill
- Danger or threat posed by the spill
- Number and types of injuries or fatalities (if any)
- Weather conditions at the incident location
- Whether an evacuation has occurred other agencies notified or about to be notified
- Any other information that may help emergency personnel respond to the incident

Once contacted, the NRC Duty Officer will guide the caller through a detailed series of questions based on the Standard Report Form to gather as much information as possible concerning the spill or release. The information is immediately entered into the Incident Reporting Information System (IRIS) and based on several pre-established criteria including material involved, mode of transportation, injuries, damage, and fatalities, select federal agency notification will take place within 15 minutes of receipt.

Several steps are followed for initial determination of external notifications, as outlined herein. Initial calls to the North Carolina Department of Environmental Quality (NCDEQ) and Virginia Emergency Operations Center (VEOC) who will relay the information to the Department of Environmental Quality, as applicable, must be made within two hours of discovery of a spill equal to or greater than 25 gallons of gasoline or oil on land within a 24 hour period, a spill of any quantity of gasoline or oil that creates a sheen on a surface water body, a spill regardless of the amount that occurs within 30 m of surface waters, and any oil spill less than 25 gallons that cannot be cleaned up within 24 hours. Follow-up calls to agencies can be provided as more information is obtained.

The QI, AQI, or designee will make all initial and follow-up federal, state, and local agency notifications. Use forms provided in Attachment 4 to document details of notifications and ensure accurate information is being passed along. For follow-up purposes, agency specific phone numbers are provided in Table I.2-3 as well as the requirements for notifications, additional phone numbers are provided in Attachment 2.

Notification to NRC completes ALL federal agency notification requirements. Additionally, tribes with NRC agreements in place receive spill notifications based on provided jurisdictional information and selected incident criteria contained in the agreement application. Courtesy calls can be placed directly to local offices of federal agencies in order to establish lines of communication, if desired.

There are a number of other contacts that must be made if the incident is of a magnitude that requires them, and they may include:

- Emergency Medical Personnel;
- OSROs available 24 hours a day, 7 days a week;
- Occupational Safety and Health Administration (OSHA) (if death or three personnel injuries result in hospitalization); and
- Wildlife rehabilitation personnel if wildlife is affected.

Contact information for these entities and others are included in Attachment 2.

In the event that the media becomes interested in the oil spill response effort, be prepared to discuss the following:

- An explanation of any injuries or deaths and what safety measures were put in place to mitigate any further injuries/deaths;
- The nature and extent of the economic losses that have occurred or are likely to occur;
- The persons who are likely to incur economic losses;
- The geographical area that is affected or is likely to be affected;
- The most effective method of reasonably notifying potential claimants of the designated source; and
- Any relevant information or recommendations.

Table I.2-3 Initial Agency Notifications

Agency	Phone	Requirements for Notifications
Federal Agencies		
National Response Center (NRC)	(800) 424-8802 (serves to notify all federal agencies)	Immediate notification is required for all discharges of oil sufficient to produce a sheen on navigable waters of the United States.
Environmental Protection Agency (EPA) Region 4	(800) 241-1754 or (404) 562-9900	NRC will notify EPA for all oil discharges into inland navigable waters of the United States sufficient to create a sheen. A written report is not required.

Agency	Phone	Requirements for Notifications
USCG Fifth District, Sector Virginia	(757) 483-8567	NRC will notify the USCG for all oil discharges into coastal navigable waters of the United States sufficient to create a sheen. A written report is not required The NRC will also provide details to the USCG Sector if the incident is a "serious marine incident" which is defined as (1) One or more deaths, (2) Injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid, (3) Damage to property greater than $100,000, (4) Actual or total constructive loss of any vessel, or (5) Discharge of oil of 10,000 gallons or more into the navigable waters of the U.S.
State Agencies		
North Carolina Department of Environmental Quality (NCDEQ)	(800) 858-0368	Immediate notification (less than two hours) is required for all discharges of oil to water resulting in a sheen on the water surface and any spill equal to or greater than 25 gallons on land In addition, the local fire department should be notified.
Virginia Emergency Operations Center (VEOC)	(804) 674-2400 or (800) 468-8892	Immediate notification (less than two hours) is required for all discharges of oil to water resulting in a sheen on the water surface and any spill equal to or greater than 25 gallons on land In addition, the local fire department should be notified.
Local Authorities		
Dare County Emergency Management	(252) 475-5655	Contact for any spill, fire, or explosion which could threaten human health, or the environment for Dare County.
Currituck County Emergency Management	(252) 232-2115	Contact for any spill, fire, or explosion which could threaten human health, or the environment for Currituck County.
Virginia Beach Emergency Management	(757) 385-3111	Contact for any spill, fire, or explosion which could threaten human health, or the environment for Virginia Beach.
Contact information for additional agencies or services that may become involved in an incident is provided in Attachment 2.		

I.2.3 Establishment of a Unified Command

The QI at the facility will initially be the incident commander during any spill. As the incident escalates, personnel from the facility as well as federal, state, and local agencies will augment the response forming a Unified Command managed by an interagency Incident Management Team (IMT). The National Incident Management System will be used by the facility, in concert with OSROs and federal, state, and local agencies. An outline of the Incident Command System (ICS) can be found in Attachment 3.

The designated QI or AQI for the Project is English-speaking, located in the United States, available on a 24-hour basis, familiar with implementation of this response plan, and trained in their responsibilities under the plan. The QI or designated AQI has full written authority to implement this response plan, including:

- Activating and engaging in contracting with identified oil spill removal organization(s);
- Acting as a liaison with the pre-designated Federal On-Scene Coordinator (FOSC); and
- Obligating, either directly or through prearranged contracts, funds required to carry out all necessary or directed response activities.

I.2.3.1 Preliminary Assessment

After initial response is taken to secure the source of the spill, and notifications are made to the required agencies, further spill containment, recovery, and disposal operations can begin. It is important to first identify the magnitude of the problem and resources threatened. The QI or designee will:

1. Classify the type and size of spill (see Figure I.2-1).
2. Determine chemical and physical properties of spilled material for potential hazards (see Attachment 10).
3. Obtain on-scene weather forecast such as wind speed, wind direction, and tide schedules (12, 24, 48, and 72 hour).
4. Track oil movement or projected movement Consider need for over flights.
5. Continuously assess human health and environmental concerns.
6. Determine extent of contamination and resources threatened (i.e. waterways, wildlife areas, economic areas).
7. Start chronological log of the incident

Incident classifications, or levels, are used to quickly categorize the appropriate level of response, notifications, and resources which may be necessary to mitigate the emergency. The incident will be categorized based upon the nature of the incident, degree of containment and isolation, materials involved or size of the release, and any other additional information provided by the person reporting the release. Incident levels may be upgraded or downgraded from the initial determination if the call-in classification was inaccurate or the situation changes. The Incident Classification levels are presented in Figure I.2-1.

Based on the preliminary assessment, additional clean-up personnel and equipment will be dispatched to the site and deployed to control and contain the spill.

Figure I.2-1 Guidelines for Determining Incident Classification

Level One - Minimal danger to life and property and the environment. Project personnel are capable of responding to the incident. The problem is limited to the immediate work area or release site and spills are generally less than 55 gallons.

Level Two - Serious situation or moderate danger to life, property, and the environment. The problem is currently limited to the Wind Development Area but does have the potential for either involving additional exposures or migrating offsite. The incident could involve a large spill of oil, a fire, and loss of electrical power.

Level Three - Crisis situation or extreme danger to life, property, and the environment. The problem cannot be brought under control, goes beyond the Wind Development Area, and/or can impact public health and safety, and the environment, or a large geographic area for an indefinite period of time. Such incidents include a vessel fire or release of oil in a volume that can impact surrounding areas.

I.2.3.2 Establishment of Objectives and Priorities

Emergency conditions will be managed in a controlled manner, and oil spill response operations will be conducted with the following objectives

1. Provide for the safety and security of responders and maximize the protection of public health and welfare.
2. Initiate actions to stop or control the source, and minimize the total volume released.
3. Determine oil fate and trajectories, identify sensitive areas, develop strategies for protection, and conduct pre-impact shoreline debris removal.
4. Contain, treat, and recover spilled materials from the water's surface or, in the case of offshore oil wells or pipelines, at the discharge point
5. Conduct an assessment and initiate shoreline cleanup efforts.
6. Identify and protect environmentally sensitive areas, including wildlife, habitats, and historic properties.
7. Identify threatened species and prepare to recover and rehabilitate injured wildlife.
8. Investigate the potential for and, if feasible, use alternative technologies to support response efforts.
9. Establish and continue enforcement of safety and security zones.
10. Manage a coordinated interagency response effort that reflects the composition of the Unified Command.
11. Inform the public, stakeholders, and the media of response activities.

During a major oil spill, resource, time, and various response constraints may limit the amount of areas that can be immediately protected. Every attempt should be made to prevent impacts to areas surrounding a spill site.

The Project is located on the OCS. North Carolina, which is the closest land mass, is located approximately 44 km west of the Wind Development Area. Resources of special economic or environmental importance located on the coast of North Carolina include:

- Public drinking water well and distribution systems;
- Wildlife refuges along the Outer Banks of North Carolina and southern Virginia, including Alligator River National Wildlife Refuge, Pea Island National Wildlife Refuge, and Back Bay National Wildlife Refuge;
- Wetlands, coastal habitat, and other ecologically important areas associated with the Outer Banks and enclosed sounds;
- Oregon Inlet Crab Spawning Sanctuary;
- Recreational beaches and national seashores, such as Cape Hatteras National Seashore, which serve local residents and the area's significant tourism economy; and
- Marinas serving commercial fishing and recreational users.

Environmental Sensitivity Index maps, available from the National Oceanic and Atmospheric Administration, provide a summary of coastal resources that are at risk if an oil spill occurs in the area. The maps are available in pdf format at https://response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html.

I.2.3.3 Implementation of Tactical Plan

The Construction and Operations Plan is to be submitted to BOEM in Q4 2020. The Company will establish contractual agreements with an OSRO prior to commencement of construction.

The general procedures for implementation of a tactical plan are likely to include

- Maximize protection of response personnel.
- Deploy containment resources, and, if appropriate, divert spill to a suitable collection point that is accessible and has the least impact to surrounding areas.
- Boom off sensitive areas.
- Maximize on-water containment and recovery operations.
- Handle wastes to minimize secondary environmental impacts.

The Company will establish contractual agreements with an OSRO to conduct oil spill response operations. Facility personnel will use containment equipment available at the site to surround or divert the spill until the OSRO arrives on scene. If the spill is large enough to require a Unified Command and Incident Management Team, the Incident Action Planning cycle will begin and will establish incident objectives, strategies, and tactics. The Unified Command would likely be made up of the USCG FOSC, the NCDEQ and/or VEOC State On-Scene Coordinator (OSC), and the Kitty Hawk Wind Incident Commander.

I.2.3.4 Containment and Recovery Methods

The objective of the initial phase of the containment procedure prevents the spread of the spill, especially on water, and confines it to as small an area as possible. The containment goals are to prevent liquid or vapors from reaching a possible ignition source (i.e. boat engines, electrical equipment) and any environmentally sensitive area (i.e. water, wetland, wildlife management area). The primary methods to be used in containing a discharge would be absorbents, if on the rig, or containment booms, if it reaches water. It may be necessary to use many different methods in one spill.

Containment and recovery refer to techniques that can be employed to contain and recover onshore and aquatic petroleum spills. Responses on water should therefore emphasize stopping the spill, containing the oil near its source, and protecting sensitive areas before they are impacted.

Sorbents can be used to remove minor on-water spills on the WTGs and ESP. For larger spills, or spills reaching water, booming is used to protect sensitive areas and to position oil so it can be removed with skimmers or vacuum trucks. Due to entrainment, booming is not effective when the water moves faster than one knot, or waves 0.5 meters (m) in height. Angling a boom will minimize entrainment. Using multiple parallel booms will also improve recovery in adverse conditions. A summary of booming techniques for both aquatic and onshore scenarios is provided in Table I.2-4.

Table I.2-4 Containment and Diversion Booming Techniques

Type of Boom	Use of Boom
Containment Booming	Boom is deployed around free oil. Boom may be anchored or left to move with the oil.
Diversion Booming	Boom is deployed at an angle to the approaching oil. Oil is diverted to a less sensitive area. Diverted oil may cause heavy oil contamination to the shoreline downwind and down current. Anchor points may cause minor disturbances to the environment.

I.2.4 Response Strategies for Containment and Recovery

The WTGs and ESP will be located in the OCS. Offshore export cables will move power from the ESP to a landfall site in the City of Virginia Beach, Virginia. Details regarding the landfall sites, onshore export cables, and onshore substation site are presented in Chapter 3 Description of Proposed Activity of the Construction and Operations Plan. If oil storage in the onshore Project Area[2] exceeds 1,320 gallons in capacity in aggregate for containers or oil-filled equipment with a capacity of 55 gallons or greater, a Spill Prevention, Control, and Countermeasure Plan or an Integrated Contingency Plan will be developed to address spill response procedures. While onshore releases are not the primary focus of this OSRP, they are addressed for completeness.

I.2.4.1 Atlantic Ocean

The Wind Development is located in the OCS. Water depths in the Wind Development Area range from 23 to 41 m. However, oils stored in the WTGs and ESP have a specific gravity of less than 1.0 and would float on the surface of the water. Feasible protection methods therefore include skimming, booming, and improvised barriers.

I.2.4.2 Banks

The nearest land mass to the WTGs and ESP is North Carolina, which is located approximately 44 km west of the Wind Development Area. Therefore, it is not anticipated that a release of oil would impact the terrain alongside the bed of a river, creek, or stream. However, the following response discussion is made available for planning of such an event.

I.2.4.2.1 Vegetated Banks

Oil may penetrate the area and coat plants and ground surfaces. Oil can persist for months. A no-action alternative may be appropriate to minimize environmental impacts. Clean-up is usually unnecessary for light coatings, but heavier accumulations may require sediment surface removal to allow new growth. Low-pressure spraying and neutralization solutions may aid removal.

I.2.4.2.2 Sand Beaches

Heavy accumulations of wastes can cover an entire beach surface and subsurface. Oil can penetrate the sand from six to 24 inches deep. Organisms living along the beach may be smothered or dangerously contaminated. Fine sand beaches are generally easier to clean. Clean by removing oil above the swash zone after all oil has come ashore. Minimize sand removal to prevent erosion. Soil treatment may be possible as well.

[2] The onshore Project Area is the onshore area where the Project's onshore facilities will be physically located.

I.2.4.2.3 Muddy Beaches

Mud habitats are characterized by a substrate composed predominantly of silt and clay sediments, although they may be mixed with varying amounts of sand or gravel. The sediments are mostly water saturated and have low bearing strength. In general, mud shorelines have a low gradient. These fine- grained habitats often are associated with wetlands. Mud habitats are highly sensitive to oil spills and subsequent response activities. Response methods may be hampered by limited access, wide areas of shallow water, fringing vegetation and soft substrate. Natural recovery is typically the best response action for light crude. Vacuum trucks may be used to remove pooled oil on the surface if accessible. Avoid digging trenches to collect oil because that can introduce oil deeper into the sediment.

I.2.4.2.4 Riprap Structures

Oil contamination may penetrate deeply between the rocks. If left, oil can asphaltize and fauna and flora may be killed. If possible, remove all contaminated debris and use sorbents to remove oil in crevices. Best response may be to remove and replace heavily contaminated riprap to prevent chronic sheening and release.

I.2.4.2.5 Walls/Pier/Barriers and Docks

Mussels, shellfish, and algae are often found attached to these structures, which may be constructed of concrete, stone, wood, or metal. Contamination may percolate between joints and coat surfaces. Heavy accumulations will damage or kill the biota. High-pressure spraying may remove oil and prepare the substrate for recolonization of fauna/flora. Consider concentration of oil and continual release concentration to make a determination as to whether an action is required to remove contamination from these structures.

I.2.4.3 Wetlands

Estuarine and freshwater wetlands are present throughout the intercoastal waterway bordered by the Outer Banks and in Virginia Beach. It is anticipated that a release of oil would impact the shoreline prior to impacting the wetlands areas. However, the following response discussion is made available for planning of such an event.

Wetlands are characterized by water, unique soils, and vegetation adapted to wet conditions. Wetlands include a range of habitats such as marshes, bogs, and swamps. The surfaces of wetlands usually have a low gradient, and vegetated areas are typically at, or under, the water level. Wetlands are highly sensitive to oil spills. The biological diversity in these habitats is significant and they provide critical habitat for many types of animals and plants. Oil spills affect both the habitat and the organisms that directly and indirectly rely on the habitat. Wetlands support populations of fish, amphibians, reptiles, birds, and mammals; many species are reliant upon wetlands for reproduction and early life stages when they are most sensitive to oil. Moreover, migratory water birds depend heavily on wetlands as summer breeding locations, migration stopovers, and winter habitats.

For small to moderate spills and lighter oils, natural recovery avoids the damage often associated with clean-up activities. However, the threat of direct oiling of animals using the wetland often drives efforts to remove the oil. Sorbents may be used, but overuse generates excess waste materials. Flooding can be used selectively to remove localized heavy oiling, but it can be difficult to direct water and oil flow towards recovery devices. Pooled oil can be removed by vacuum truck, if accessible, and trampling of vegetation can be avoided. The removal of heavily oiled vegetation may reduce the contamination of wildlife. Time of year is an important consideration for any clean-up method used in a wetland area.

I.2.4.4 Onshore Spills

The WTGs and ESP are located in the OCS. It is unlikely that a release of oil from the WTGs or ESP would result in an onshore spill. However, the following response discussion is made available for the planning of such an event.

Onshore spills typically result from pipeline or equipment (i.e. pumps, valves) leaks. Secondary containment systems will be provided at operating areas more prone to spillage. The WTGs and ESP are equipped with a secondary containment structure that will be sized according to the largest container. The ESP containment will drain to a sump tank. Spills occurring outside these areas should be contained at or near the source to minimize the size of the clean-up area and quality of soil affected.

Containment is most affected when conducted near the source of the spill, where the oil has not spread over a large area, and contained oil is of sufficient thickness to allow effective recovery and/or clean-up. The feasibility of effectively implementing containment and recovery techniques is generally dependent upon the size of the spill, available logistical resources, implementation time, and environmental conditions or nature of the terrain in the spill area.

For onshore spills, trenches, earthen berms, or other dams are the most effective response to contain oil migration on the ground surface. Recovery of free oil is best achieved by using pumps, vacuum trucks, and/or sorbents. Forming collection ponds for containing free product may be considered when attempting to recover free oil. Absorbents such as hay, straw, dry dirt or sand, and other commercial products may be considered as alternative methods of containment

I.2.4.5 Small Lakes

Lake Rudy and Lake Wesley, located in Virginia Beach, have access to the Atlantic Ocean. It is anticipated that a release of oil from the WTGs and ESP could be contained prior to reaching the navigational channels for the lakes. However, should this occur, the following response discussion is made available for planning of such an event.

Lakes and ponds are standing bodies of water of variable size and water depth. Water levels can fluctuate over time. The bottom sediments close to shore can be soft and muddy, and the surrounding land can include wetlands and marshes. Floating vegetation can be common. Lakes provide valuable habitat for migrating and nesting birds and mammals, and support important fisheries. Wind will control the distribution of oil slicks, holding the oil against a shore, or spreading it along the shore and into catchment areas. Wind shifts can completely change the location of oil slicks, contaminating previously clean areas. Thus, early protection of sensitive areas is important. Oil impacts on floating vegetation depend to a large degree on dose, with possible elimination of plants at high doses. The best possible response method is to deploy booms to prevent oil from entering the lakes. If oil does enter any lakes, containing the oil to a small area with booms is the next best response.

I.2.4.6 Intercoastal Waters

The Outer Banks are a string of barrier islands along the coast of North Carolina and southern Virginia, which border a network of sounds and bays, the largest being Currituck Sound, Albemarle Sound, and Pamlico Sound. Collectively, these waterbodies comprise a navigable intercoastal waterway, which is used for commercial shipping as well as recreational boating. The Virginia and North Carolina waters are part of a larger navigable waterway spanning the majority of the United States Atlantic coast. Commercial and recreational fishing also occur throughout the intercoastal waterway and the connected sounds, rivers, and bays in North Carolina and Virginia. These intercoastal waters are predominantly shallow and are surrounded by wetlands and other ecologically important habitat.

Pamlico Sound is connected to the Atlantic Ocean by Oregon Inlet, Hatteras Inlet, and Ocracoke Inlet. Oregon Inlet, more than 60 km west of the Wind Development Area, is the furthest north and the closest access to the intercoastal waters from the Wind Development Area. It is anticipated that a release of oil from the WTGs and ESP could be contained prior to reaching the intercoastal waters. However, should this occur, early protection of sensitive areas is important. As with lakes, the best possible response method is

to deploy booms to prevent oil from entering the intercoastal waters. If oil does enter the intercoastal waters, containing the oil to a small area with booms is the next best response.

I.2.4.7 Offshore Environments

The Project is located approximately 44 km from the Corolla, North Carolina. Therefore, it is anticipated that a release of oil from the WTGs and ESP could be contained prior to reaching the coastline. However, should this occur, the following response information is included in this plan to assist in planning of such an incident

The initial response to mitigate/contain a spill offshore is to utilize large Oil Spill Recovery Vessels or other advancing skimming systems to recover the oil before it reaches the shoreline. Oil discharged offshore is generally distributed by the wind. In addition, wave action causes emulsification of the oil, decreasing the recoverable amount, and increasing the area of contamination. If the oil does reach the shoreline, geographic response strategies from the RCPs and ACPs, and industry best management practices, as appropriate, will be utilized.to protect environmentally sensitive sites.

I.2.5 Waste Disposal and Oil Recovery

Oil spill clean-up from recovery operations will involve the further handling of recovered oil and oiled materials. These will be directed to a state-approved reclamation/disposal site. Normally, the waste generated from a recovery operation will be classified as a non-Resource Conservation and Recovery Act state regulated waste. North Carolina follows federal hazardous waste codes and regulations (15A North Carolina Administrative Code 13A .0119). Virginia has also adopted federal regulations regarding hazardous waste (with minor variations regarding mercury lamps; 9 Virginia Administrative Code 20-60-273).

The different types of wastes generated during response operations require different disposal methods. Waste will be separated by material type for temporary storage prior to transport to an approved recovery or treatment/storage/disposal facility.

Skimmer tanks allow for gravity separation of the oil from the water. The separated water is transferred through a hose and discharged forward of the recovery pump. This method is called "decanting". This process is vital to the efficient mechanical recovery of spilled oil because it allows maximum use of limited storage capacity, thereby increasing recovery operations. Approval must be obtained from federal and state agencies prior to decanting.

Recovered oil may be transferred to portable tanks. It is important to ensure temporary storage devices are of sufficient size to allow continued operations.

Oily debris collected requires specific handling. Contaminated materials will be placed in leak proof, sealable containers, such as drums or roll-off boxes, and transported to appropriate facilities for processing, recycling, or disposal.

Clean sand and shoreline materials can be separated from oiled materials and returned to the shoreline. Not only is this cost effective from an operations perspective, it also provides an efficient means of returning clean, excavated material back to the shoreline as a restorative measure.

I.2.6 Potential Failure Scenarios

Specific mitigation actions and responses to be taken (exact pumps to shut down, valves to close, etc.) depend on the way the transfer is performed and the nature of the situation; however, certain failure

scenarios share common characteristics for mitigation. Mitigation procedures will be performed with consideration for health and safety as the top priority.

The Project is being developed and permitted using a Project Design Envelope approach. The Project Design Envelope allows the Company to properly define and bracket the characteristics of the Project for the purposes of environmental review and permitting while maintaining a reasonable degree of flexibility with respect to selection and purchase of key Project components. Potential failure scenarios will be developed as key Project components are selected. General mitigation procedures are included in Attachment 3.

I.2.7 Procedures for Mobilization of Resources

A major consideration during a spill is the organization and direction of the transportation of manpower, equipment, and materials used in response operations. The QI will work with local authorities (state police) to establish land routes to expedite the movement of personnel, equipment, materials, and supplies to the Staging Area and waste products from the Staging Area. The Staging Area is an ICS facility used as a forward operations location to mobilize response resources to the spill site. A Staging Area Manager will be responsible for managing the Staging Area and will utilize status boards to coordinate all equipment, personnel, and materials mobilized to the spill site. Equipment will first be mobilized from the OSRO warehouse to the Staging Area. The Staging Area Manager will direct response equipment to the appropriate Branch/Division/Group/Task Force/Strike Team.

In support of Project operations and the necessary maintenance activities, the Company will have management and administrative team offices, a control room, and O&M facilities. These functions will be co-located, if feasible. Details regarding spill response materials, services, equipment, and response vessels have not been finalized at this time. The Company will retain a third-party OSRO that is licensed as hazardous waste transporters and can provide emergency response services and clean-ups of oil and/or hazardous material spills. Potential oil spill response contractors in Virginia located in proximity to the Project include Accurate Marine Environmental (Portsmouth), Clean Harbors Environmental (Chesapeake), HEPACO (Norfolk), Mill City Environmental Corporation (Norfolk), and Marine Spill Response Corporation (Chesapeake). Potential oil spill response contractors in North Carolina located in proximity to the Project include Shamrock Environmental Corporation (New Bern). Response times for mobilization of OSRO resources will be dependent on the location of the OSRO.

I.2.8 Sustained Actions

The WTGs and ESP are equipped with secondary containment, which reduce the potential need for a sustained action. Most incidents would be able to be handled by a few individuals without implementing an extensive response management system. However, an incident could occur where cleanup is not possible within seven days from the initial emergency stage.

Response operations will need to be managed 24-hours a day, seven days a week, until the operation is complete. The facility's IMT is available to be cascaded in to support response operations. Once the initial emergency stage of the spill situation transitions to the sustained action stage, the response management structure will develop more prolonged mitigation and recovery action strategies.

I.2.9 Termination and Follow-Up Actions

Cleanup will be conducted as thoroughly as possible, but will be terminated when, in the opinion of the FOSC and the QI:

- There is no recoverable oil in the water;

- Further removal actions would cause more environmental harm than the remaining oil;
- Cleanup measures would be excessive in view of their insignificant contribution to minimizing a threat to the public health, welfare, or the environment; and
- Actions required to repair unavoidable damage resulting from removal activities have been completed.

Once the determination has been made that the response can be terminated, certain regulations may become effective once the "emergency" is declared over. Orderly demobilization of response resources will need to occur. Follow-up actions such as accident investigation, response critique, plan review, and written follow-up reports will be needed.

The IMT Planning Section will develop a Demobilization Plan to ensure that an orderly, safe, and cost-effective demobilization of personnel and equipment is accomplished

General demobilization considerations for all personnel are the following:

- Complete all work assignments;
- Brief subordinates regarding demobilization;
- Complete and file required forms and reports;
- Follow check out procedures from the Demobilization Plan;
- Evaluate performance of subordinates prior to release;
- Return communications equipment or other non-expendable supplies;
- Report to assigned departure points on time, or slightly ahead of schedule; and
- Ensure that all personnel returned to their home location safely.

The QI will convene a meeting to summarize the incident, and a complete report will be developed within 180 days. This report will record the incident as it developed and will identify, in detail, the actions taken, resources committed, and any problems encountered. The QI will include a recommendation outlining any suggested changes of policies or procedures.

Attachment 1 – Facility Diagrams

Figure I1-1 and Figure I1-2 show the planned locations of offshore and onshore Project components. Indicative layouts for 14-MW WTGs and 20-MW WTGs are shown in Figure I1-3 and I1-4, respectively. The 14-MW layout includes 60 WTGs, one ESP, and two alternate locations. The 20-MW layout includes 42 WTGs, one ESP, and one alternate location. The ESP will be located at one of the locations within the array.

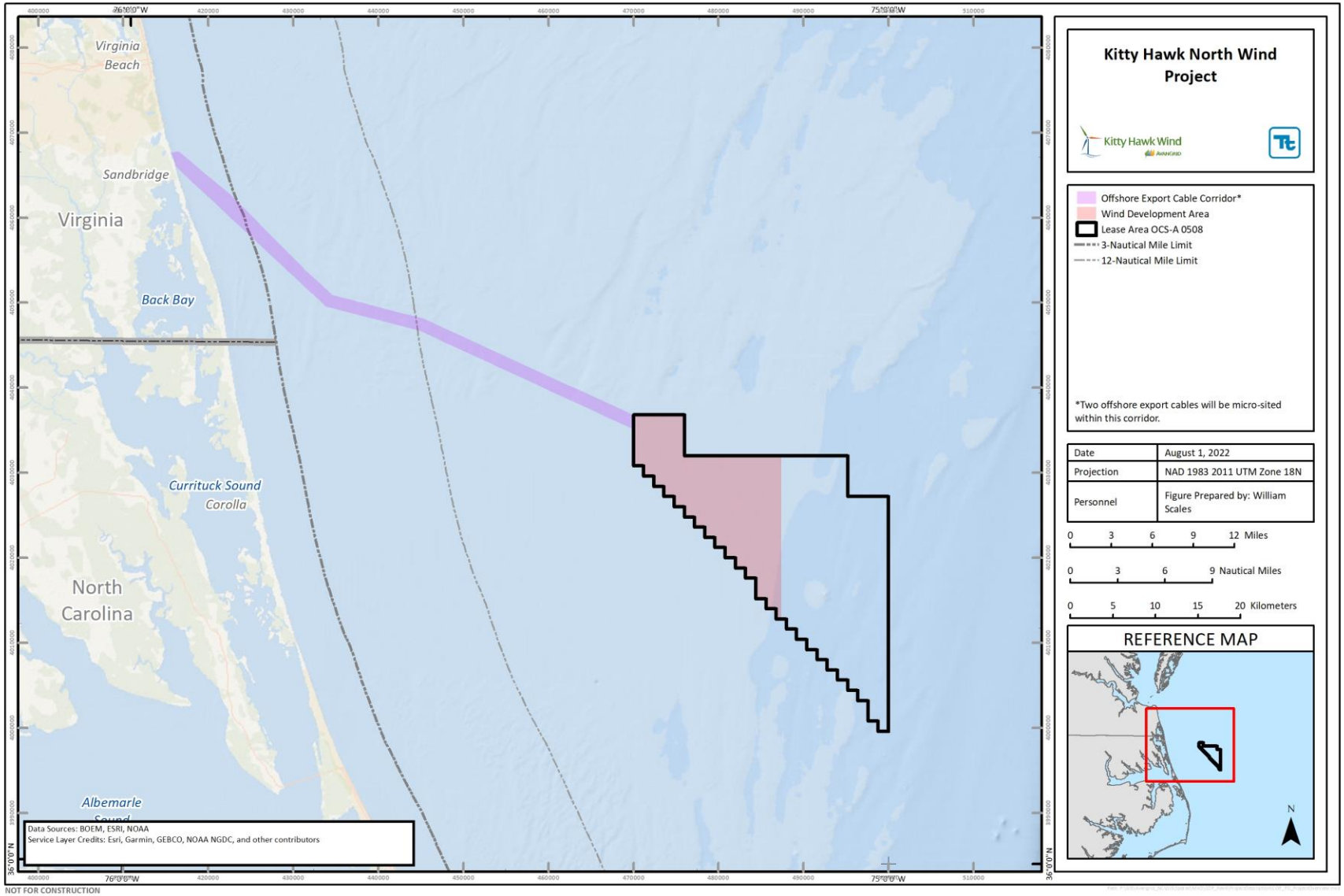

Figure I1-1 Offshore Project Overview

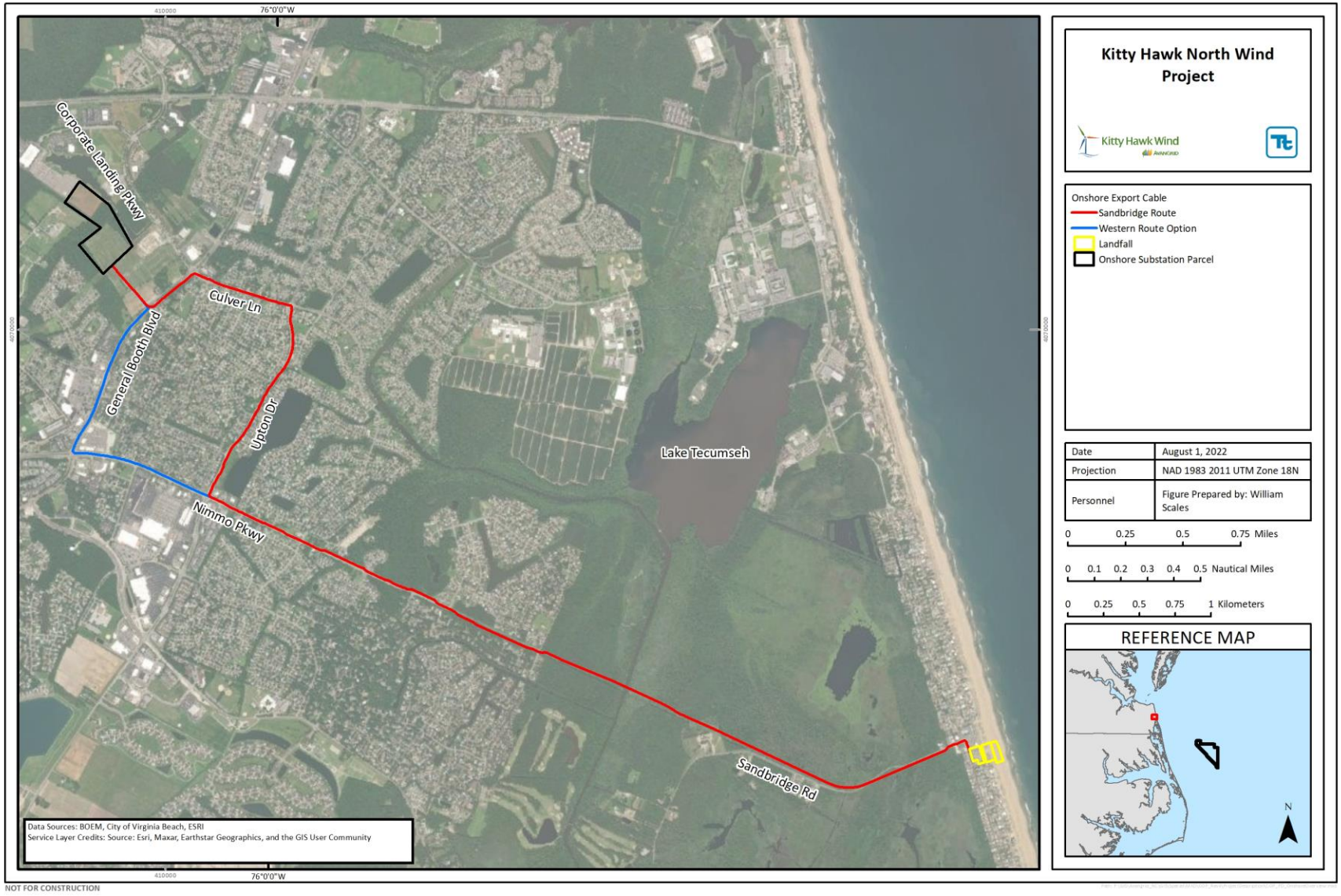

Figure I1-2 Onshore Project Overview

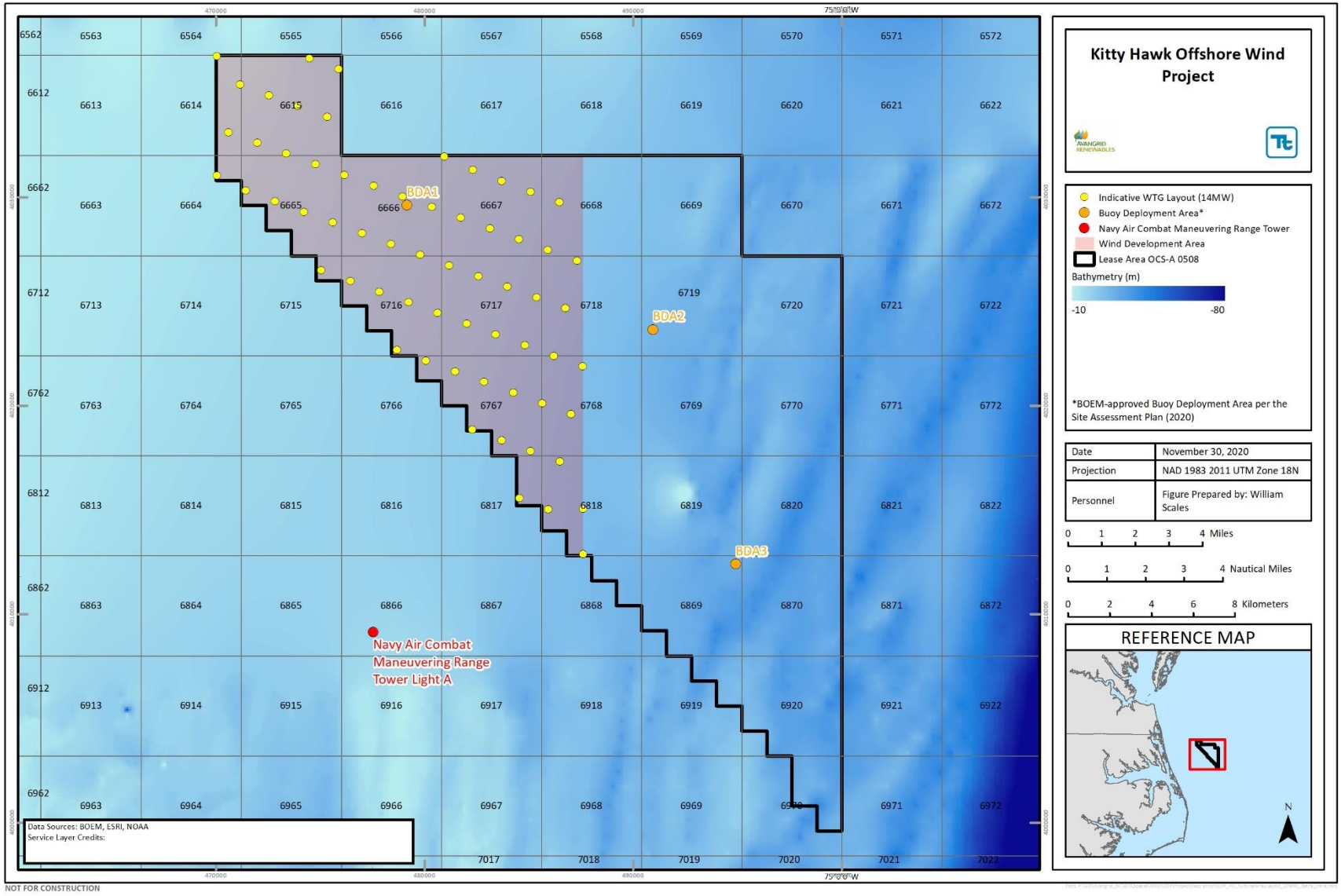

Figure I1-3 14-MW WTG Indicative Layout

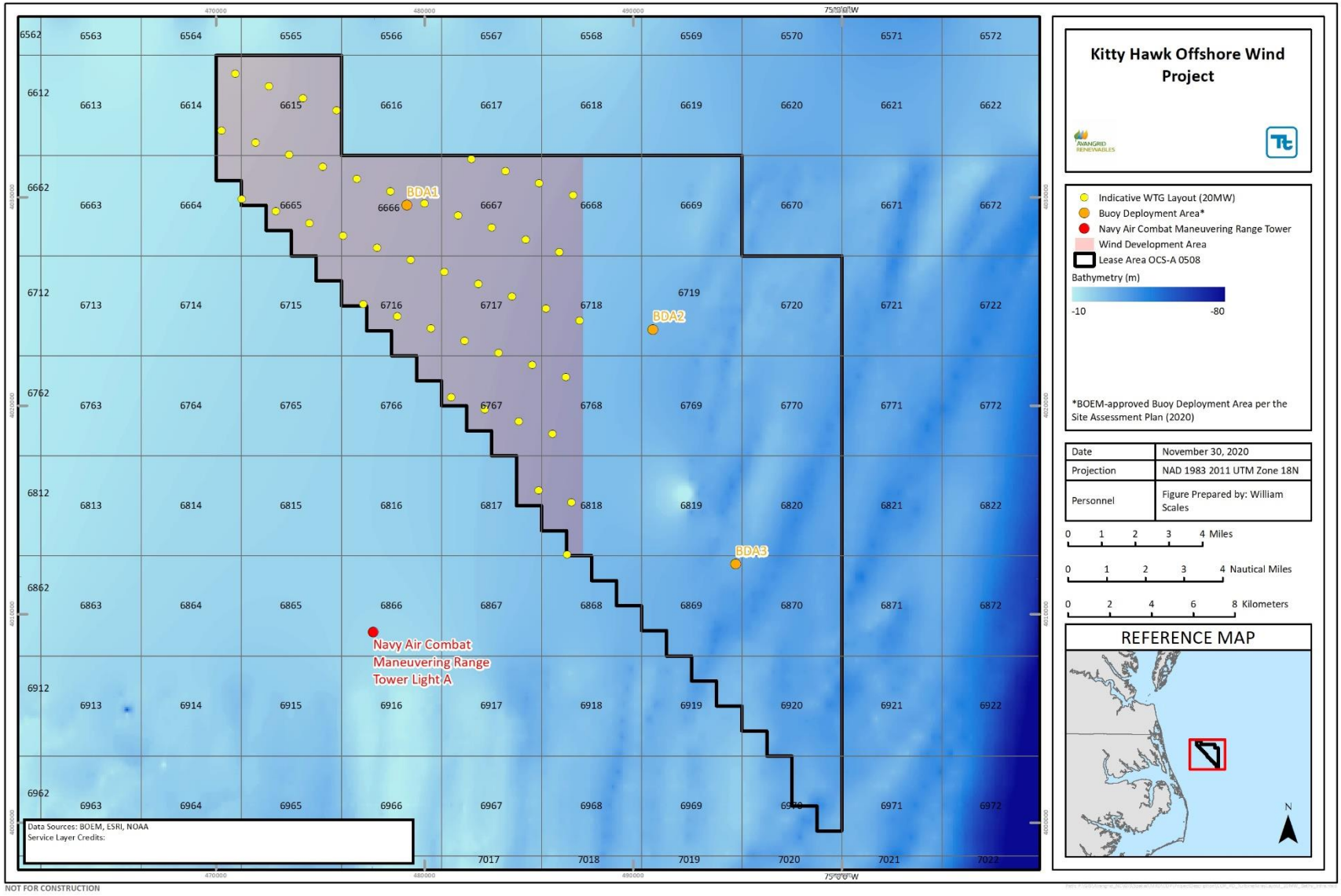

Figure I1-4 20-MW WTG Indicative Layout

Attachment 2 – Notification Contact List

Table I2-1 Internal Notification List

Name	Title	Phone Number
Person A	Qualified Individual, Title	(XXX) XXX-XXXX
Person B	Alternate QI, Title	(XXX) XXX-XXXX
Person C	Alternate QI, Title	(XXX) XXX-XXXX
Person D	Alternate QI, Title	(XXX) XXX-XXXX
Person E	Manager Environmental, Health, and Safety	(XXX) XXX-XXXX
Person F	Director of Communications	(XXX) XXX-XXXX
Person G	Chief Financial Officer	(XXX) XXX-XXXX
Person H	Director of Administration	(XXX) XXX-XXXX

Table I2-2 External Notification and Call List

Agency	Location	Telephone
National Response Center	2703 Martin Luther King Jr. Avenue SE Washington, D.C. 20593	(800) 424-8802
USCG Fifth District, Sector Virginia	4000 Coast Guard Blvd Portsmouth, Virginia 23703	(757) 483-8567
EPA Region 4	Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW Atlanta, Georgia 30303	(800) 241-1754 or (404) 562-9900
OSHA (fatality or 3 or more employees sent to hospital)	200 Constitution Avenue Washington, D.C. 20210	(800) 321-6742
North Carolina Department of Environmental Quality (NCDEQ)	1601 Mail Service Center Raleigh, NC 27699	(800) 858-0368
Virginia Emergency Operations Center (VEOC)	7700 Midlothian Turnpike North Chesterfield, VA, 23235	(804) 674-2400 or (800) 468-8892
Dare County Emergency Management	370 Airport Road P.O. Box 1000 Manteo, NC 27954	(252) 475-5655
Currituck County Emergency Management	153 Courthouse Road, Suite 122 Currituck, North Carolina 27929	(252) 232-2115
Virginia Beach Emergency Management	2154 Landstown Road Virginia Beach, VA 23456	(757) 385-3111

Agency	Location	Telephone
USCG Classified Oil Spill Removal Organizations (OSRO)		
The Company has not selected an OSRO at this time. USCG classified OSROs for USCG Fifth District can be found at https://cgrri.uscg.mil/UserReports/WebClassificationReport.aspx.		
Weather		
National Oceanic and Atmospheric Administration (NOAA) National Weather Service	445 Myles Standish Boulevard Taunton, MA 02870	(508) 822-0634 (forecasts) (508) 828-2672 (general info)
NOAA Weather Radio Norfolk, VA	Norfolk, VA	Call sign: KHB37 Frequency: 162.550
NOAA Weather Radio Mamie, NC	Powells Point, NC	Call sign: WWH26 Frequency: 162.425
NOAA Weather Radio Cape Hatteras, NC	Buxton, NC	Call sign: KIG77 Frequency: 162.475
Aviation Resources		
The Company has not selected aviation resources at this time. Lists of charter operators in Virginia and North Carolina can be found at https://www.aircharterguide.com/US_Operators/VA/Virginia and https://www.aircharterguide.com/US_Operators/NC/North+Carolina.		
Regulatory Agencies for Wildlife		
U.S. Fish and Wildlife Service, Southeast Region	1875 Century Boulevard NE Atlanta, GA 30345	(404) 679-4000
NOAA Fisheries Southeast Regional Office	263 13th Avenue South St. Petersburg, FL 33701	(727) 824-5301
Virginia Conservation Police	7870 Villa Park Drive, Suite 400 (Villa Park 3) Henrico, VA 23228	(804) 367-1000
North Carolina Wildlife Resources Commission, Law Enforcement	1751 Varsity Drive Raleigh, NC 27606	(919) 707-0030
Medical Facilities		
Sentara Princess Anne Hospital (closest to onshore components)	2025 Glenn Mitchell Dr, Virginia Beach, VA 23456	(757) 507-1000
The Outer Banks Hospital (closest to Wind Development Area)	4800 S Croatan Hwy, Nags Head, NC 27959	(252) 449-4500
Fire Aid (911)		
Virginia Beach Fire Department	2154 Landstown Road Virginia Beach, VA 23456	(757) 385-8882
Corolla Fire and Rescue	470 Ocean Trail Corolla, NC 27927	(252) 453-0468
Duck Fire Department	1259 Duck Road Kitty Hawk, NC 27949	(252) 261-3929

Agency	Location	Telephone
Police Aid (911)		
Virginia Beach Police Department	2154 Landstown Road Virginia Beach, VA 23456	(757) 385-4141
Currituck County Sheriff's Office	1123 Ocean Trail Corolla, North Carolina 27927	(252) 453-2121
Duck Police Department	1259 Duck Road Duck, NC 27949	(252) 599-1057

Attachment 3 – Response Management System

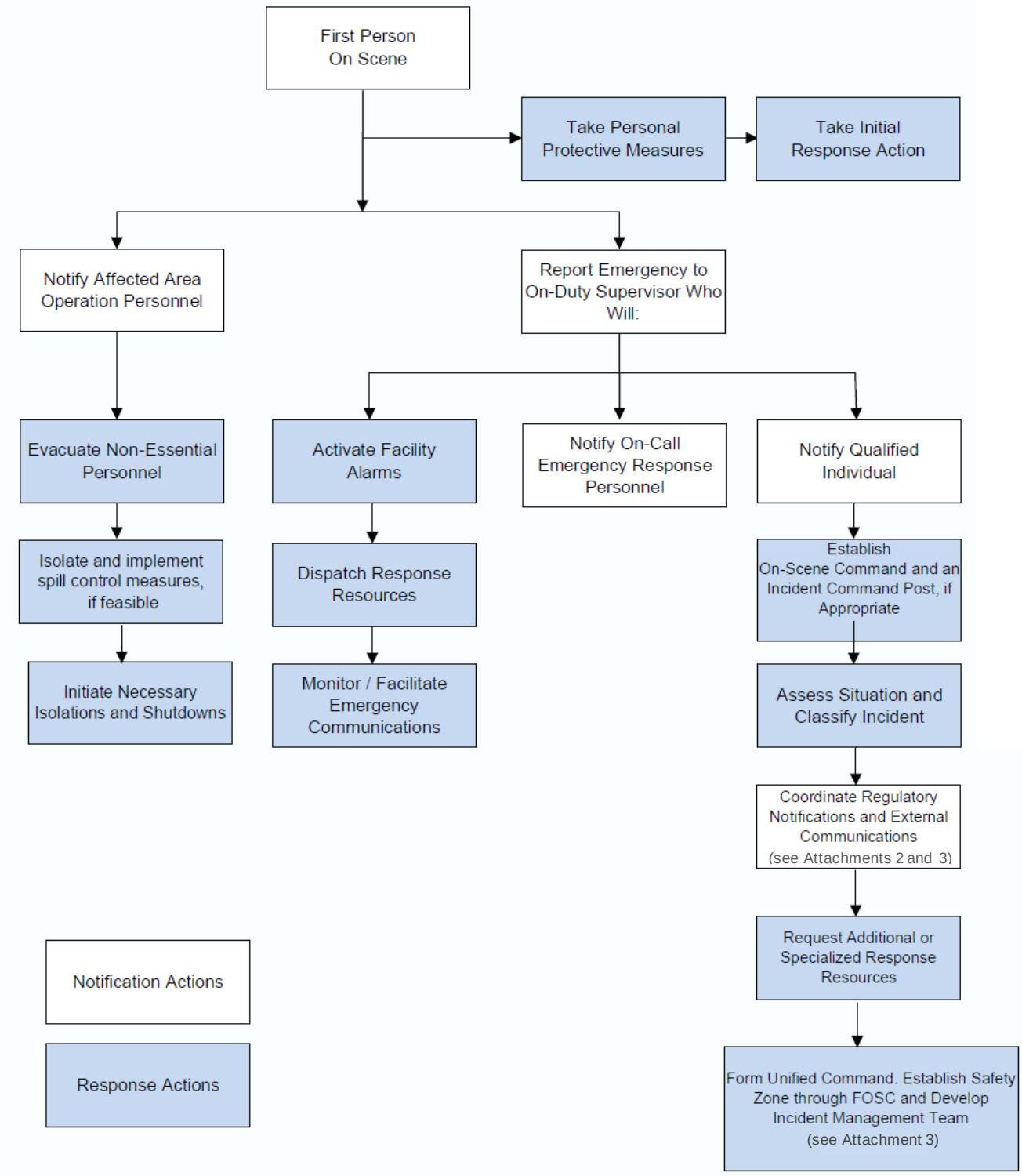

Figure I3-1 Initial Response Flowchart

Attachment 4 – Incident and Other Documentation Forms

The QI will coordinate the documentation during the incident, and for post-incident review, in conjunction with federal, state, and local officials, as well as with others familiar with the incident. Forms to assist in documentation and presentation of consistent notification information are presented at the end of this Attachment for use during an incident. These include:

- Initial Notification;
- Agency Call Back for Information;
- Chronological Log of Incident; and
- Incident Report.

As an alternative, or in addition to, the National Incident Management System ICS Forms noted below may also be used. These can be accessed online at https://www.fema.gov/media-library/assets/documents/10350.5.

Table I4-1 National Incident Management System ICS Forms

ICS Form No.	Description
IAP	Cover Sheet Incident Action Plan
201	Incident Briefing
202	Incident Objectives
203	Organization Assignment List
204	Assignment List
204a	Assignment List Attachment
205	Incident Communications Plan
206	Medical Plan
207	Incident Organization Chart
208	Site Safety Plan
209	Incident Status Summary
210	Resource Status Change
211	Incident Check-In List
213	General Message
213-RR	Resource Request
214	Unit Log
215	Operational Planning Worksheet
215a	IAP Safety Analysis Form
218	Support Vehicle/Equipment Inventory
219	Resource Status Card (T-Cards)
220	Air Operations Summary
221	Demobilization Checkout
224	Crew Performance Rating

ICS Form No.	Description
225	Incident Personnel Performance Rating
230	Daily Meeting Schedule
232	Resources at Risk Summary
232a	ACP Site Index
233	Incident Open Action Tracker
234	Work Analysis Matrix
235	Facility Needs Assessment

The post-incident investigation will begin after the source of the incident has been corrected, eliminated, or repaired, and the facility has been declared safe by the QI. The QI will take the following steps during a post-accident investigation:

- Obtain all data, information, and reports pertaining to the incident.
- Interview in person, or by telephone, each person knowledgeable of the incident.
- Review the response of operations personnel to see if procedures and training were adequate or if changes are warranted.
- Evaluate other potentially dangerous situations which could have occurred, and if the response of personnel and safety systems would have accommodated those situations had they occurred.
- Prepare recommendations as appropriate for changes to:
    - Design of facility;
    - Operating procedures;
    - Training;
    - Communications; and
    - Emergency response plans and procedures.
- The QI will prepare and issue a written report to all supervisors with any changes deemed appropriate.

The QI will prepare a post-incident report. This attachment will contain an accounting of incidents that occur including proof that the Project met its legal notification requirements for any given incident (i.e., signed record of initial notifications and certified copies of written follow-up reports submitted after a response).

Examples of routine equipment and maintenance checklists/logs are also provided. These include:

- Response Equipment Inspection Log;
- Secondary Containment Checklist and Inspection Form;
- Tank Inspection Form; and
- Maintenance Log.

Form I4-1 Initial Notification Data Sheet

Date:	**Time:**
INCIDENT DESCRIPTION	
Reporters Name:	**Position:**
Reporters Phone Number:	**Address:**
Company:	
Latitude:	**Longitude:**
Date of Incident:	**Time of Incident:**
Spi11/1ncident Location:	**Source and/or Cause of spill/incident:**
Material spilled and total volume:	**Vessel Name and Number (if applicable):**
Is the material spilled in water?	**Is the source secured?**
Weather conditions:	**Precipitation?**
Incident Description:	
Name of Incident Commander:	**Where is the Incident Command Post (directions)?**
RESPONSE ACTIONS	
Actions taken to correct, control or mitigate incident:	
Number of injuries:	**Number of deaths:**
Were there evacuations?	**Number of evacuated:**
Areas affected:	**Damage estimate:**
Any other information about impacted medium:	
CALLER NOTIFICATIONS	
National Response Center (NRC): 800-424-8802	State Agency
NRC Incident Assigned Number:	**Other Agencies Notified:** □ USCG □ EPA □ OSHA □ USFWS
Other Information Not Recorded Elsewhere:	

Note: Do Not Delay Notifications Pending Collection of All Information. Notify NRC immediately.

Form I4-2 Emergency Call Back Information

Incident Number: _____

Document all information that agencies request.

Date:	**Time:**
Agency:	**Person Contacted:**
Reason for Call Back:	
Document all dialogue with agency below:	

Form I4-3 Chronological Log of Events

Incident Number: _____

Document all events chronologically.

Date/Time	Record of Event

Form I4-4 Incident Report

Incident Number: _____

Reviewed by:	**Final Date:**
□ Attach Initial Notification Form for basic data, update as incident progresses.	
Incident Duration (dates and time):	**Type and Location of Incident:**
Categorical Level of Incident and what portions of response team were assembled? Identify all leader positions and names.	**Does the incident create a potential compliance issue? If yes, describe.**
Material discharged:	**Final discharged volume:**
Were there any abnormal operating conditions immediately before the emergency? If yes, describe.	**Were there any equipment problems or changes immediately before the emergency? If yes, describe.**
Description of media impacted:	**Was all media cleaned up to satisfaction of regulatory agencies?**
Type and volume of waste generated (attach waste tracking log if applicable):	**How and where was waste disposed or recovered?**

Were all spilled materials recovered? If not, describe what was not recovered and why.	
Provide description of cleanup methods utilized:	
Describe decontamination procedures and include pieces of equipment decontaminated:	
Has stock of emergency equipment been replenished to pre-incident conditions?	**Date demobilization was completed:**
Describe what worked and did not work during incident:	
Recommendations for improvement:	

Form I4-5 Response Equipment Inspection Log

Incident Number: _____

Inspector	Date	Equipment	Comments

The Project is being developed and permitted using a Project Design Envelope approach. The Project Design Envelope allows the Company to properly define and bracket the characteristics of the Project for the purposes of environmental review and permitting while maintaining a reasonable degree of flexibility with respect to selection and purchase of key Project components. Specific details will be identified in the final version of the OSRP.

Form I4-6 Secondary Containment Checklist and Inspection Form

Incident Number: _____

Area(s) Inspected:	**Date/Time:**	**Inspected By:**
Inspection Item	Acceptable (Y/N)	Comments/Corrective Action
Level of precipitation in containment		
Presence of spilled or leaked material		
Operational status of drainage valves		
Debris		
Location/status of pipes, inlets, drainage		
Cracks		
Discoloration		
Corrosion		
Valve conditions		

The Project is being developed and permitted using a Project Design Envelope approach. The Project Design Envelope allows the Company to properly define and bracket the characteristics of the Project for the purposes of environmental review and permitting while maintaining a reasonable degree of flexibility with respect to selection and purchase of key Project components. Specific details will be identified in the final version of the OSRP.

Form I4-7 Monthly Checklist and Inspection Form

Incident Number: _____

Tank(s) Inspected:	**Date/Time:**	**Inspected By:**
Inspection Item	Acceptable (Y/N)	Comments/Corrective Action
Emergency Generator (Day Tank and Lubrication Oils)		
Diesel Tank		
Platform Crane		
Power Transformers		
Reactors		
Auxiliary/Earthing Transformers		
Wind Turbine Generators		

Inspect for the following:

- Support structure is in good condition (no corrosion or damage)
- External shell structure is in good condition (no corrosion or damage)
- Drip pans are in place (if applicable)
- Foundation is in good condition (stable and level)
- Liquid level gauge is in place and in good working condition (if applicable)

Remarks:

Form I4-8 Response Equipment Maintenance Log

This may be maintained on computer log or paper but kept on-site. Include description of maintenance activities performed (i.e., repaired boat motor, gate valves lubricated, booms cleaned, etc.).

Date	Equipment	Maintenance Performed

Attachment 5 – Training Exercises/Drills and Logs

Facility response training, ICS training, personnel response training, drills/exercises, and spill prevention meetings in this section comply with the requirements of 30 CFR 254.41. Per 30 CFR 254.41(d), training certificates and training attendance records must be maintained in a designated location for at least two years. The Company will maintain documentation of training in the Boston, Massachusetts office. Training records must be made available to any authorized BSEE representative upon request. The Emergency Response Critique forms used to document inspections, drills and training are included in Section I5.3.

I5.1 Drills and Exercises

Per 30 CFR 254.42(a), the entire OSRP must be exercised at least once every three years. However, to satisfy this requirement, separate exercises may be conducted over a three-year period. Exercises must simulate conditions in the area of operations, including seasonal weather variations, to the extent practicable. In addition, exercises must cover a range of scenarios, such spills of a short duration and limited volume, large continuous spills, and the worst case discharge scenario.

A schedule of exercises will be determined by management in accordance with 30 CFR §254.42(b). The Chief, OSPD may require a change in the frequency of required exercises. Actual training exercises will be coordinated with the OSRO Response training programs will comply with the Preparedness for Response Exercise Program (PREP) and the USCG/EPA training guidelines for oil spill response. Table I5-1 includes a list of regular personnel training exercises. Section I5.3 presents Drill/Exercise Documentation Forms associated with the training exercises.

The Chief, OSPD and BOEM must be notified at least 30 days prior to the following exercises: annual incident management team tabletop exercise; annual deployment exercise of response equipment identified in the OSRP that is staged at onshore locations; and semi-annual deployment exercise of any response equipment which the BSEE Regional Supervisor requires an owner or operator to maintain at the facility or on dedicated vessels. The annual IMT tabletop exercise will include the actual notification to the NRC, BSEE Regional Supervisor, BOEM, and the OSRO, to determine availability and response times. Each call that is made will begin with the statement "This is a drill".

As detailed in this attachment, several types of drills are conducted as part of the drill program as follows:

- Notification drills to test communications procedures are conducted monthly.
- QI notification drills are conducted at least quarterly to verify that the QI can be reached in an emergency situation to perform required duties.
- The spill management team participates in a table-top drill annually and is included in other drills as often as possible.
- Unannounced annual notification drills are performed. These drills are conducted with BOEM and OSRO participation. These annual drills will simulate a response action and conveyance of key information between the QI, BOEM, and the OSPD.
- Every effort is made to cooperate in local drills requested by regulatory agencies and neighbors.
- Spill removal organizations under contract are drilled at least annually.

The annual notification drill will be an opportunity for the QI, BOEM, and OSPD to simulate an incident command post setting that is capable of supporting response efforts (e.g. deployment of personnel and equipment, tracking containment efforts, taking samples, shoreline clean-up, etc.) for a variety of spill scenarios. Prior to the drill, the size and scope of the drill will be defined and will be structured of various

levels of complexity to test events ranging from implementation of specific components of the OSRP to full implementation of the plan.

Facility spill response drills are comprehensive and designed to improve response actions at the level of the first responder. A tabletop planning session is held prior to the drill, with a limited number of supervisory personnel informed of the drill.

Drills are conducted to enable personnel who will act as initial responders during an actual spill to become familiar with response equipment During spill drills, the techniques of pulling and placing boom such as for diversion, deflection, and containment are practiced. Drills are also conducted to allow personnel to become familiar with climatic conditions, such as the interactions of wind, tide, and wave actions and their effect on oil movement. In spill drills, consideration is given to sensitive areas which may be affected and need protection.

As part of the drill process, a critique is held following the drill. All personnel who participate in the drill, including observers, also participate in the critique. The purpose of this is to review the drill for procedures which worked well and procedures which did not work well. Each individual has an opportunity to provide for input recommendations are submitted to management

Annually, at least one of the exercises listed in Table I5-1 must be unannounced. Unannounced means the personnel participating in the exercise must not be advised in advance, of the exact date, time, and scenario of the exercise. Staff will also participate in unannounced exercises as directed by the lead federal agency. The objectives of the unannounced exercises will be to test notifications and equipment deployment for response to the average most probable discharge. After Project personnel successfully complete a Government-Initiated Unannounced Exercise (GIUE), they will not be required to participate in another one for at least 36 months from the date of the exercise.

Project personnel will also participate in exercises of the RCPs/ACPs as directed by the USCG FOSC. As part of the National Preparedness for Response Exercise Program (PREP), the USCG Fifth District, Sector Virginia FOSC will either direct a government-led PREP exercise where the Company could participate as the Responsible Party, or the Company could lead the exercise design and facilitation effort for an industry-led PREP exercise. These exercises are typically full-scale exercises involving both an Incident Command Post element exercising the IMT and a field deployment element where spill response equipment is actually deployed. In either a government-led or industry-led PREP exercise, the Company would be a main player on the Exercise Design Team along with the USCG, NCDEQ and/or VEOC, and other federal, state, and local stakeholders.

An Exercise Drill Log will be developed and maintained by the Company's training department to record all drills and exercises completed at the facility. An example training log form is presented in Section I5.3. Records of these activities will be maintained for a period of three years, as per 30 CFR 254.42(e).

I5.2 Planned Training

Planned training sessions are held for staff and operations personnel on an annual basis to gain an understanding of the OSRP process. The intent of these sessions is to keep personnel informed of their obligation to respond to all emergencies, to prevent pollution incidents, to improve spill control and response techniques, and to gain a comprehensive understanding of the ICS and their responsibilities on the IMT These briefings highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures to prevent spills.

All field personnel will be trained in the proper procedures for the reporting of spills. Included in this training are procedures for contacting the QI on a 24-hour basis. They will also review procedures on how and where to place facility containment/recovery materials depending on where the spill occurs and various seasonal conditions. Personnel will be informed that detergents or other surfactants are prohibited from being used on an oil spill in the water, and that dispersants may only be used with the approval of the RRT.

Records of all training activities are maintained for at least five years following completion of training. The facility will maintain records for each individual as long as these individuals are assigned duties in this plan. Individuals will sign documentation when participating in training classes or exercises as provided in Table I5-1 below.

Credit for any of the above drills and exercises may be taken by the Company if an actual incident occurs, and records of the incident will be maintained to show evidence of complying with any of the above drill or exercise requirements.

Table I5-1 Response Training Exercises

Exercise	Purpose/Scope	Objectives	Frequency	Participants
QI Notification Exercise	Ensure the QI can be contacted in a spill response emergency in order to carry out required duties.	Contact QI by telephone, radio, fax, pager, or email. Confirmation received from QI of notification.	Monthly	Qualified Individuals
Incident Management Team (IMT) Tabletop Exercise	Ensure the IMT is familiar with the emergency response procedures and the Incident Command System.	IMT is familiar with emergency response procedures. Employs proper procedures during a simulated emergency response.	Annually	IMT, OSPD, BOEM
On-Site Equipment Deployment Exercise	Verify that required response equipment is operable and facility personnel are capable of deploying the equipment.	Verify that designated equipment is available. Deploy at least minimum required equipment during exercise. Verify that personnel tasked with deployment have received required training.	Annually	Project Response Team, OSPD, BOEM, OSRO
OSRO Equipment Deployment Exercise	Same as above, but performed by OSRO	Same as above	Annually	OSRO

Exercise	Purpose/Scope	Objectives	Frequency	Participants
Discharge Prevention Briefings	Conduct Discharge Prevention Briefings	Personnel have adequate understanding of the OSRP. Describe known discharges or failures. Discuss any recently developed precautionary measures.	Annually (optional)	Oil-handling Personnel
Simulated Spill Drill	Test the resources and response capabilities of the OSRO.	Demonstrate OSRO's ability to deploy resources to include: • On water containment and recovery • Sensitive habitat protection • Storage	Every three years	Oil-handling Personnel
Full-Scale Exercise (FSX)				

Notes
1. In a three year period, at least one of these exercises must include a worst case discharge scenario.
2. In a three year period, all components of the response plan must be exercised.
3. Annually, at least one of the first three exercises listed must be unannounced to participants.

I5.3 Training Documentation and Record Maintenance

Spill response personnel training records will be maintained at the Kitty Hawk Wind LLC office in Boston. An example training record is provided in Form I5-2 below. Records will be maintained at this location for five years and will include:

- Documentation of yearly training associated with the OSRP as provided to IMT and facility personnel;
- Records of personnel training in accordance with OSHA 29 CFR §1910 120 regulations;
- Records of training provided for response contractor personnel will be maintained at the respective contractor's office and will be verified by facility personnel on-site; and
- Logs of volunteer workers (if applicable) and activities performed.

Form I5-2 Spill Response Drill Form Notification Exercise

Kitty Hawk Wind LLC

LLC

SPILL RESPONSE DRILL/EXERCISE DOCUMENTATION FORM

NOTIFICATION EXERCISE

1. Date performed:
2. Exercise or actual response:
3. Facility initiating exercise:
4. Name of person notified:
    a. Is this person identified in your response plan as qualified individual or designee?
5. Time initiated:
    a. Time in which qualified individual or designee responded:
6. Method used to contact:
    a. Telephone
    b. Pager
    c. Radio
    d. Other
7. Description of notification procedure
8. Evaluation of Drill:
9. Changes to be implemented (if any):

Certifying Signature:

Form I5-3 Incident Management Team Tabletop Exercise

Kitty Hawk Wind LLC

SPILL RESPONSE DRILL/EXERCISE DOCUMENTATION FORM

INCIDENT MANAGEMENT TEAM TABLETOP EXERCISE

1. Date performed:
2. Exercise or actual response:
    a. If an exercise, announced or unannounced:
3. Location of tabletop:
4. Time started:
    a. Time completed:
5. Response plan scenario used (check one):
    a. Average most probable discharge
    b. Worst case discharge
    c. Maximum most probable discharge
    d. Size of (simulated)spill-bbls/gals
6. Describe how the following objectives were exercised
    a. Spill management team's knowledge of oil-spill response plan:
    b. Proper notifications
    c. Communications system
    d. Spill management team's ability to access contracted oil spill removal organizations
    e. Spill management team's ability to coordinate spill response with On-Scene Coordinator, State and applicable agencies:
    f. Spill management team's ability to access sensitive site and resource information in the Area Contingency Plan:
7. Evaluation of Exercise:
8. Changes to be implemented (if any):

Certifying Signature:

Form I5-4 Spill Response Drill Form Equipment Deployment Exercise

Kitty Hawk Wind LLC

SPILL RESPONSE DRILL/EXERCISE DOCUMENTATION FORM

EQUIPMENT DEPLOYMENT EXERCISE

1. Date performed:
2. Exercise or actual response:
    a. If an exercise, announced or unannounced:
3. Deployment location(s)
4. Time started:
    a. Time OSRO called (if applicable)
    b. Time on-scene
    c. Time boom deployed
    d. Time recovery equipment arrives on-scene Time completed
5. Equipment deployed was:
    a. Facility-owned
    b. OSRO-owned; if so, which OSRO:
    c. Both
6. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
7. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested. Attach a sketch of equipment deployments and booming strategies:
8. For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's average most probable spill?
9. Was the equipment deployed in its intended operating environment?
10. For deployment of OSRO-owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?
11. Was the equipment deployed in its intended operating environment?
12. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program?
13. Date of last equipment inspection:
14. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill?
15. Was all deployed equipment operational? If not, why not?
16. Evaluation of Exercise:
17. Changes to be implemented (if any):

Certifying Signature:

Form I5-5 Kitty Hawk Wind Training Log

Kitty Hawk Wind LLC

TRAINING LOG

EMPLOYEE TRAINING

Employee Name	Date	Hours of Training	Training Topic

Attachment 6 – Regulatory Compliance and Cross-Reference Matrix

Table I6-1 Oil Spill Response Plans for Outer Continental Shelf Facilities

30 CFR 254, Subpart B		Plan Reference
254.21(b)(1)	Table of Contents	Table of Contents
254.21(b)(2)	Emergency response action plan	Attachment 3
254.21(b)(3)(i)	Equipment response inventory	Attachment 9
254.21(b)(3)(ii)	Contractual agreements	Attachment 8
254.21(b)(3)(iii)	Worst case discharge scenario	Attachment 7
254.21(b)(3)(iv)	Dispersant use plan	Attachment 7: Response
254.21(b)(3)(vi)	In situ burning plan	Attachment 7: Response
254.21(b)(3)(vi)	Training and drills	Attachment 5
254.22(a)	Facility location and type	OSRP Section 1.3
254.22(b)	Table of Contents	Table of Contents
254.22(c)	Record of changes	OSRP Page iv
254.22(d)	Cross reference table	Attachment 6
254.23(a)	Designation of QI	OSRP Section 2.2, Table 2-2, Section 2.3
254.23(b)	Designation of spill management team	TBD[1]
254.23(c)	Spill response operating team	TBD[1]
254.23(d)	Spill response operation center	TBD[1]
254.23(e)	Oil stored, handled, or transported	Attachment 7
254.23(f)	Procedures for early detection of a spill	OSRP Section 2.1
254.23(g)(1)	Spill notification procedures	OSRP Section 2.2 Attachment 4
254.23(g)(2)	Methods to detect/predict spill movement	Attachment 7
254.23(g)(3)	Methods to prioritize areas of importance	OSRP Section 2.5, Attachment 7
254.23(g)(4)	Methods to protect areas of importance	OSRP Section 2.6
254.23(g)(5)	Containment and recovery equipment deployment	Table 2-4
254.23(g)(6)	Storage of recovered oil	OSRP Section 2.6.3
254.23(g)(7)	Procedures to remove oil and oil debris from shallow waters	OSRP Section 2.6.2
254.23(g)(8)	Procedure to store, transfer, and dispose of recovered oil and oil-contaminated materials	OSRP Section 2.6.3
254.23(g)(9)	Methods to implement dispersant use plan and in situ burning plan	Attachment 7: Response
254.24(a)	Inventory of spill response resources	Attachment 9

30 CFR 254, Subpart B		Plan Reference
254.24(b)	Procedures for inspecting and maintaining spill response equipment	Attachment 9
254.25	Contractual agreements	Attachment 8
1. Designation of spill management team, spill response operating team, and spill response operation center will be provided in the final version of the OSRP.		

Attachment 7 – Planning Calculations for Discharge Volumes and Response Equipment

Per 30 CFR 254.26, the volume of the worst case discharge scenario must be determined using the criteria in 30 CFR 254.47. The criteria in 30 CFR 254.47 applies to oil production platform facilities and pipeline facilities. The Project does not fall into either one of these categories. Per BOEM, each region is responsible for determining the volume of oil of the worst case discharge and for providing decision documentation for plans in their regional jurisdiction. BOEM does not have currently specific guidance available for wind farms. For calculating the worst case scenario, information on what fluids will be present and associated quantities was provided.

Facility Information

The Company proposes to construct, own, and operate the Kitty Hawk North Wind Project (the Project). The Project will be located in the designated Renewable Energy Lease Area OCS-A 0508 (Lease Area). The Commercial Lease of Submerged Lands for Renewable Energy Development on the OCS of Lease Area OCS-A 0508 was awarded through the BOEM competitive renewable energy lease auction of the Wind Energy Area offshore of North Carolina. The Lease Area covers 49,536 hectares and is located 44 kilometers offshore of Corolla, North Carolina.

The Company proposes to develop approximately 40 percent of the Lease Area, an area located in the northwest corner closest to shore (19,814 hectares; the Wind Development Area). The Project will connect from the ESP through offshore export cables (within a designated corridor) and onshore export cables to the new onshore substation in Virginia Beach, Virginia, where the renewable electricity generated will be transmitted to the electric grid. The worst case oil discharge associated with the Project is conservatively assessed as a catastrophic release of all oil contents from the topple of an approximately 800-MW ESP located closest to shore within the Wind Development Area.

The oil sources in the WTGs include the generator oil, transformer oil, and grease for bearings, which total approximately 4,501 gallons per WTG. Oil sources in the ESP include power transformers, reactors, auxiliary/earthing transformers, diesel tanks, an emergency generator day tank, an emergency generator, and naphthenic oil for a platform crane. These total approximately 129,269 gallons (3,078 bbl).[3] Volumes of oils for the WTGs and ESP are presented in Table I7-1 and Table I7-2.

[3] Total does not include the volume of oil for the crane, which will be determined during the design phase.

Table I7-1 WTG Oil Storage

Oil Source	Volume(Liters)	Approximate Gallons
Generator (hydraulic oil)	8,000	2,113
Transformer	6,000	1,585
Grease	40	11
Diesel fuel	3,000	793
TOTAL	**17,040**	**4,501**

Table I7-2 ESP Oil Storage

Oil Source	Volume (Liters)	Approximate Gallons
Emergency generator diesel tank	21,560	5,696
Emergency generator lubrication oil	55	15
Platform crane lubrication oil	TBD	TBD
Power transformer and reactor oil	466,400	123,210
General oil (hydraulic oil)	1,320	349
TOTAL	**489,335**	**129,269**

Oil Volume and Spill Containment

If all the oils associated with the ESP were released, the worst case scenario would be 129,269 gallons released. However, control measures (e.g. containment structures) would be in place to contain a release of oil. Where possible, biodegradable oils will be used. In addition, monitoring equipment will be used to detect a release of oil. Monitoring equipment being considered include closed circuit televisions, supervisory control and data acquisition, alarm systems (e.g. tank level, containment liquids, etc.), and oil detection equipment for the sump tank. The equipment will be monitored remotely from a "control room". Specific details will be identified in the final version of the OSRP.

The ESP platform is designed to be equipped with a drain system consisting of containment structures, piping, an oil water separator, and a sump tank. The containment structures are sized according to the largest container and are connected via a piping system, draining liquids under gravity to an oil water separator and a sump tank. The sump tank must be dimensioned for the largest amount of oil, deluge water, and firewater coming from an oil-filled equipment during the greatest incident plus spare capacity (15% recommended). The sump tank may be emptied by a service vessel for proper disposal of the oily substances onshore.

In general, all equipment that contains an environmentally harmful substance is placed above drip trays. The central area of the platform where the transformers are placed is a plated area with drains, acting as drip trays. Drip trays that have the potential to collect rain water, such as the central area, are connected via the oil water separator to the sump tank. other drip trays (e.g. indoor) which collect only harmful substances may be connected directly to the sump tank.

Rain water and oily substances are separated in the oil water separator before water is led overboard. Water being led overboard is monitored for oil contamination. As per maritime regulations, the oil content in the water processed from the oil water separator must be less than 15 parts per million of oil. The 15 parts per million alarm shall activate to indicate when this level cannot be maintained, and initiate automatic stop of overboard discharge of oily mixtures where applicable. In the event of a discharge, the overboard line will be closed and the drained liquids are fed to the sump tank and stored.

Any temporary piping connections transporting oily substances (e.g. between diesel storage container and emergency generator) will be made using off-shore certified dry-break connectors and placed above a drip tray. A simple oil spillage kit, allowing to mitigate small, local spillage during maintenance, will be part of the delivery. The WTGs will contain up to approximately 4,501 gallons of oil per WTG. The WTGs are designed to have a fiberglass secondary containment system, which would be sized according to the largest container.

Resources of Special Economic or Environmental Importance

The Project is located in the OCS. North Carolina, which is the closest land mass, is located approximately 44 km west of the Wind Development Area. Resources of special economic or environmental importance located on the coast of North Carolina include:

- Public drinking water well and distribution systems;
- Wildlife refuges along the Outer Banks of North Carolina and southern Virginia, including Alligator River National Wildlife Refuge, Pea Island National Wildlife Refuge, and Back Bay National Wildlife Refuge;
- Wetlands, coastal habitat, and other ecologically important areas associated with the Outer Banks and enclosed sounds;
- Oregon Inlet Crab Spawning Sanctuary;
- Recreational beaches and national seashores, such as Cape Hatteras National Seashore, which serve local residents and the area's significant tourism economy; and
- Marinas serving commercial fishing and recreational users.

Environmental Sensitivity Index maps, available from the National Oceanic and Atmospheric Administration, provide a summary of coastal resources that are at risk if an oil spill occurs in the area. The maps are available in pdf format at https://response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html.

Response

The Project has not yet been approved. Details regarding spill response materials, services, equipment, and response vessels have not been finalized at this time. The WTGs and ESP have been designed to utilize secondary containment systems to prevent a discharge of oil to the environment. Containment will be provided considering the size of the largest container. The secondary containment for the ESP is connected to a sump tank. In addition, an oil/water separator will be in use. It is unlikely that a release of oil would not be contained by the containment systems.

Oils used by the Project have a specific gravity of less than 1.0 Therefore, any discharges of oil to water would float on the surface of the water, and on-water mechanical recovery techniques could be used to recover the released oil.

The Company will retain a third-party OSRO to assist in the unlikely event of a release of oil to the environment. In addition, the Company will maintain pier space for crew transfer vessels (CTVs) and/or other support vessels. CTVs are purpose built to support offshore wind energy projects; they are typically 23 m in length and set up to safely and quickly transport personnel, parts and equipment. In addition to vessels, the Company will maintain spill response equipment such as a spill overpack drum, containment bladders, absorbent booms, pigs, socks, and other sorbent materials. In addition, the Company will have

on-hand personal protective equipment such as goggles or safety glasses, face shields, gloves, and disposable chemical and oil resistant suits (e.g. Tyvek suits).

Potential oil spill response contractors in Virginia located in proximity to the Project include Accurate Marine Environmental (Portsmouth), Clean Harbors Environmental (Chesapeake), HEPACO (Norfolk), Mill City Environmental Corporation (Norfolk), and Marine Spill Response Corporation (Chesapeake). Potential oil spill response contractors in North Carolina located in proximity to the Project include Shamrock Environmental Corporation (New Bern). USCG Classified OSROs for USCG Fifth District can be found at:

https://cgrri.uscg.mil/UserReports/WebClassificationReport.aspx.

Once an OSRO is contracted, additional details will be provided regarding spill response resources and the time needed for procurement. In addition, a discussion of response to worst case scenario in adverse weather conditions will be addressed. Per 33 CFR 115.1020, factors to consider when evaluating adverse weather include, but are not limited to, significant wave height, ice, temperature, weather-related visibility, and currents.

The NCP restricts dispersant use to only areas where agreements have been established. In addition, the NCP limits restricts dispersant use to only those approved by the Environmental Protection Agency (EPA). Per Appendix 6 of the RRT III RCP and Annex J of the RRT IV RCP, pre-authorization for the use of chemical dispersants has been established. The Wind Development Area is within the Region IV "Green Zone" as defined in *Use of Dispersants in Region IV*, as it is greater than three miles seaward of the shoreline, greater than 10 meters in depth, and not under state or special federal management jurisdiction or otherwise designates as "Yellow" or "Red" zones (https://nrt.org/sites/52/files/1-RRT4DISP.PDF). In this area, the decision to apply dispersants rests solely with the pre-designated USCG OSC, and no further approval, concurrence or consultation on the part of the USCG OSC with the EPA, Department of Commerce, Department of the Interior, or the state(s) is required. The Region 4 RRT Dispersant Use Plan (Annex J of the RRT IV RCP) provides direction and procedures for dispersant use in the coastal zone.

In-situ burning is regulated by Subpart J of the NCP. In addition, the NCP restricts in-situ burning to areas where agreements have been made between state and federal regulatory authorities. Per Annex J of the RRT IV RCP, the RRT has established an In-situ Burn Plan. The Wind Development Area is within the Region IV "A" zone as defined in *Use of In-Situ Burning in RRT Region IV*, as it is greater than three miles seaward of the shoreline and not under state or special federal management jurisdiction or otherwise designates as "B" or "R" zones (https://www.nrt.org/sites/52/files/1-RRT4In-SituBurnPlan.doc). In this area, the decision to use in-situ burning rests solely with the pre-designated USCG OSC, and that no further approval, concurrence or consultation on the part of the USCG or the USCG OSC with the EPA, Department of Commerce, Department of the Interior, or the state(s) is required.

Attachment 8 – Agreement with Oil Spill Response Organization

The Project has not yet been approved. Details regarding contractual agreements will be finalized prior to construction.

Per 30 CFR 254.25, the contractual agreements appendix must furnish proof of any contracts or membership agreements with OSROs, cooperatives, spill-response service providers, or spill management team members who are not Company employees that are cited in the OSRP. Documentation should include copies of the contracts, or membership agreements, or certification that contracts or membership agreements are in effect. The contract or membership agreement must include provisions for ensuring the availability of the personnel and/or equipment on a 24-hour-per-day basis.

The Company will retain a third-party OSRO. Potential oil spill response contractors in Virginia located in proximity to the Project include Accurate Marine Environmental (Portsmouth), Clean Harbors Environmental (Chesapeake), HEPACO (Norfolk), Mill City Environmental Corporation (Norfolk), and Marine Spill Response Corporation (Chesapeake). Potential oil spill response contractors in North Carolina located in proximity to the Project include Shamrock Environmental Corporation (New Bern).

Attachment 9 – Equipment Inventory

Details regarding spill response materials, services, equipment, and response vessels for the Project will be confirmed at a later date.

Appendix 4 of the RRT III RCP and Annex A of the RRT IV RCP contain the USCG/EPA Response Jurisdiction Boundaries. These documents demarcate the boundaries between inland and coastal zones for the purpose of pre-designation of on- scene coordinators for pollution response. In both regions, the USEPA provides the FOSC for all responses within the inland zone, and the USCG provides the FOSC for all responses within the coastal zone.

Maintenance Facilities

In support of Project operations and the necessary maintenance activities, the Company will have a management and administrative team, a "control room" operation, and maintenance facilities. These functions will be co-located, if feasible. The Company is in the early stages of evaluating possible locations for the O&M facilities; possible locations include Hampton Roads, Virginia; Rudee Inlet, Virginia; Lynnhaven Inlet, Virginia; Little Creek, Virginia; and Cape Charles, Virginia.

The technicians and engineers responsible for long-term maintenance will operate from O&M facilities. The O&M facilities will include office and training space, shop space, warehouse space for parts and tools, and pier space for CTVs and/or other support vessels. CTVs are purpose-built to support offshore wind energy projects; they are typically 23 to 26 m in length and set up to safely and quickly transport personnel, parts, and equipment. The CTVs are typically used in conjunction with helicopters.

Helicopters can be used for fast response visual inspections and repair activities, as needed. The maintenance operation may also make use of larger Service Operations Vessels (SOVs). SOVs are typically 79 to 91 m in length with a deadweight of approximately 4,000 tons at maximum draft. SOVs are usually diesel electric powered with dynamic positioning.

In addition to the vessels above, it is anticipated that the Company will maintain spill response equipment such as a spill overpack drum, containment bladders, absorbent booms, pigs, socks, and other sorbent materials. In addition, the Company will have on-hand personal protective equipment such as goggles or safety glasses, face shields, gloves, and disposable chemical and oil resistant suits (e.g. Tyvek suits).

Electrical Service Platform

The ESP will include step-up transformers (66 to 220 kilovolts) and other electrical gear. The Company will maintain spill response equipment at the ESP. Brooms, shovels, sorbents, pigs, socks, and a spill overpack drum will be maintained at the ESP for response to minor leaks and spills. In addition, the Company will have on-hand personal protective equipment such as goggles or safety glasses, face shields, gloves, and disposable chemical and oil resistant suits (e.g. Tyvek suits).

Oil Spill Response Contractor

Kitty Hawk Wind, LLC will retain a third-party OSRO. Potential oil spill response contractors in Virginia located in proximity to the Project include Accurate Marine Environmental (Portsmouth), Clean Harbors Environmental (Chesapeake), HEPACO (Norfolk), Mill City Environmental Corporation (Norfolk), and Marine Spill Response Corporation (Chesapeake). Potential oil spill response contractors in North Carolina located in proximity to the Project include Shamrock Environmental Corporation (New Bern).

The selected spill contractor will be responsible for the inspection and maintenance of their equipment. The equipment should be inspected on at least a monthly basis.

Inspections (30 CFR 254.43)

Response equipment will be inspected when the WTG is otherwise visited or at least quarterly and maintained to ensure optimal performance. Records of inspections of response equipment must be maintained for at least two years and made available to authorized BSEE representatives upon request Inspections of contractor equipment is addressed below.

The program of maintenance and testing of emergency response equipment involves four activities: Operability Check, Inventory, Inspection, and Maintenance. The Emergency Response Team (ERT) Coordinator or designee is required to sign the inspection form, and will be responsible for any follow-up actions that may be required as a result of the inspection, inventory or test of emergency response equipment For any items that cannot be replaced or repaired during the inspection, test or inventory, the inspector will indicate need of further action on the inspection form It will then become the responsibility of the ERT Coordinator to take further actions(s) as required.

Operability Check (Semi-annual)

This activity is intended to periodically ensure the operability of certain items of equipment in the emergency equipment inventory so that it is in a constant state of readiness for deployment. The designated inspector will check the operability of equipment including safety monitoring equipment and outboard motors. Any equipment that is electronic, electrical, or mechanical will be tested under actual load or use conditions.

During the operability check, the inspector will also perform routine maintenance on the equipment, as needed, such as battery replacements, oil and filter changes, and cleaning of boom. The inspector will indicate on the inspection form any problems encountered with the equipment and corrective measures taken or needed.

Inventory (Monthly)

The inspector will verify the availability and condition of the variety of supplies, materials, and tools that are maintained in storage. The inspector will work from a list of items that are required to be maintained at all times. Any discrepancies in the list, or item replacement needs, will be noted on the inventory form Inspection for condition of emergency resources will be checked semi-annually.

Semi-annual Inspections

The semi-annual inspection of the sorbent booms will involve complete removal of booms from storage and the laying-out of the booms in an area that would not cause damage to the fabric of the booms. The inspector will examine each length of boom closely, making note of any fabric damages or wear, broken or frayed cable, missing weights and damaged connectors. The inspector will also verify the quantity of boom that is in storage to ensure there is sufficient supply. Any damages will be repaired, if possible. If the length of boom cannot be economically repaired, the inspector will request replacement

Contractor Equipment

The ERT will ensure that the contractor has a maintenance program established for its equipment. A copy of the program would be requested and kept on file.

Attachment 10 – Safety Data Sheets

Safety Data Sheets for oils to be located at the Project will be provided in the final version of the OSRP.