

Monthly Mariner's Update for Coastal Virginia Offshore Wind	Date of Applicability	01 May 2024
	Issue:	05/24
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The goal of the Monthly Mariner's Update is to give a high-level overview of ongoing and planned nearterm construction activities and the vessels involved. Questions regarding construction operations are welcome, preferably well in advance of each construction activity. These questions and comments can be directed <u>here</u>.

• Weekly updates are published in the USCG Local Notice to Mariners which can be found <u>here</u>.

Project Background Information:

Offshore construction work for Coastal Virginia Offshore Wind (CVOW) commenced in late February 2024 with the first seabed disturbing activity – the relocation of the first Munition of Explosive Concern (MEC).

Dominion Energy will construct, own and operate Coastal Virginia Offshore Wind (CVOW) (hereinafter referred to as the Project). The Project is located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf Offshore Virginia (Lease No. OCS-A 0483), with buried subsea cables connecting CVOW to shore. The purpose of this Project is to provide 2.6-gigawatts of clean, reliable offshore wind energy to our customers, while providing substantial economic and environmental benefits to the Commonwealth of Virginia.

Offshore components of the Project will consist of the following:

- 176 Wind Turbine Generators (WTGs), each with a capacity of 14.7 megawatts, and associated monopile foundations;
- Three Offshore Substations (OSS) and associated OSS jacket foundations;
- Approximately 231 miles (372 kilometers) of total length of inter-array cables within the CVOW Lease Area; average inter-array cable length of 5,868 feet (1,789 meters) between WTGs and connected to the OSSs; and
- Nine buried submarine high-voltage alternating-current Offshore Export Cables (OECs), approximately 350
 miles (563 kilometers) of total length, connecting the OSSs to shore at the State Military Reservation (SMR)
 in Virginia Beach, VA.

The offshore project components, including the WTGs, OSSs, inter-array cables, and OECs, will be located in federal waters in the OCS-A 0483 Lease Area (Lease Area). Portions of the Offshore Export Cables will also be located in Commonwealth of Virginia waters (within three miles of shore).





Boundary of CVOW project



WTG and OSS Layout



Work planned for the period of May 1, 2024, to May 31, 2024:

- Monopile installation activities will begin in the northwest area of the CVOW site
- Munitions and Explosives of Concern (MEC) identification and relocation
- Light Marine Debris Relocation in support of MEC activities
- Nearshore construction approximately 400 yards off the coast of the State Military Reservation (SMR) will resume activities mid-month
- Multiple large project components are scheduled for arrival at Portsmouth Marine Terminal
- Ongoing fisheries resource studies in and around the Lease Area

CVOW Marine Coordination Center

The CVOW project established a shoreside Marine Coordination Center to monitor and coordinate all offshore activity related to project construction and operations. The MCC is manned 24 hours a day, 7 days a week.

Contact Information:

757-366-7000 (desk) 757-731-8307 (cell) Email: CVOWOps@dominionenergy.com

Monopile Installation

Monopile installation activities are scheduled to begin in the northwest area of the CVOW site around the first of the month. The M/V ORION will load several monopiles at the project staging area at Portsmouth Marine Terminal and then transit to the site, where installation of the monopiles will begin. Supporting the monopile installation will be the M/V ATLANTIC OCEANTIC, providing double bubble curtain support and the M/V GO PATRIOT, the dedicated Protected Species Observation vessel.

Below is a depiction of the sequence of installation. The monopile site locations are numbered to indicate the sequence of monopile installations, which will begin on or around May 3, 2024.





Temporary Marine Lighting on Monopile Foundations

Once monopiles have been installed in the seabed, temporary quick flashing yellow marine navigation lights will be installed and operated until the transition piece is permanently affixed to the structure and the final lighting is installed. The temporary lights may be operational for as long as 6 months before the final marine lighting installation is completed. These temporary lights will be energized from sunset to sunrise. Updates to the lighting installations will be published in the USCG Local Notice to Mariners.

USCG Safety Zones in Effect at Installation Sites:

The U. S. Coast Guard has established 179 temporary 500-meter safety zones around the construction of 176 wind turbine generators and three offshore substations in Federal waters on the Outer Continental Shelf, east northeast of Virginia Beach, Virginia. This action is necessary to protect life, property and the environment during construction of the foundations and the subsequent installation of the turbine components, from May 1, 2024 to May 1, 2027. When enforced, only attending vessels and those vessels specifically authorized by the Fifth Coast Guard District Commander, or a designated representative, are permitted to enter or remain in the temporary safety zones.





Each of the 179 temporary safety zones will be enforced individually, for a period lasting approximately 48 hours, as construction progresses from one structure to the next. The Coast Guard will provide notice of each enforcement period via the Local Notice to Mariners and issue a Broadcast Notice to Mariners via marine channel 16 (VHF-FM) as soon as practicable in response to an emergency or hazardous condition. The Coast Guard is publishing this rulemaking to be effective, and enforceable, through May 1, 2027, to encompass any construction delays due to weather or other unforeseen circumstances. If the project is completed before May 1, 2027, enforcement of the safety zones will be suspended, and notice given via Local Notice to Mariners.

Buoy Installations supporting the monopile installation activities:

Scientific measurement buoys will be deployed in the lease area for the duration of construction. The buoys will be deployed from the M/V GO FREEDOM. These devices will be gathering such data as meteorological conditions, acoustic measurements, and sound field verifications. These buoys will be migrating throughout the lease area and export corridor during construction, as indicated in the table below.

Puov Nome	Turre	Latituda (DMS) Langituda (DMS)		Estimated Dates of Deployment	
Budy Name Type	Latitude (DMS) Longitude (D		From	То	
WR1	Wave Monitoring Buoy	36° 56' 19.27" N	075° 26' 30.67" W	Apr-24	1-Jul-24
WR2	Wave Monitoring Buoy	36° 53' 05.43" N	075° 23' 45.61" W	Apr-24	1-Nov-24
WR3	Wave Monitoring Buoy	36° 58' 11.97" N	075° 17' 53.11" W	1-Jul-24	1-Nov-24
WR4	Wave Monitoring Buoy	36° 58' 11.73" N	075° 13' 34.54" W	1-Nov-24	1-Jul-25
WR5	Wave Monitoring Buoy	36° 49' 47.59" N	075° 27' 35.06" W	1-Nov-24	30-Apr-26
WR6	Wave Monitoring Buoy	36° 50' 45.27" N	075° 16' 29.88" W	1-Jul-25	31-Dec-25
B1N	Wave Monitoring Buoy	36° 49' 06.77" N	075° 54' 25.59" W	1-Sep-24	31-Aug-25
B1S	Wave Monitoring Buoy	36° 48' 35.53" N	075° 54' 25.22" W	Back up loc	ation for B1N
B2N	Wave Monitoring Buoy	36° 48' 19.52" N	075° 47' 09.59" W	1-Sep-24	31-Aug-25
B2S	Wave Monitoring Buoy	36° 47' 42.22" N	075° 47' 08.04" W	Back up loc	ation for B2N
B4S	Wave Monitoring Buoy	36° 47' 49.64" N	075° 39' 46.93" W	1-Sep-24	31-Aug-25
B5S	Wave Monitoring Buoy	36° 49' 37.69" N	075° 33' 56.82" W	1-Sep-24	31-Aug-25
B1-P1	Passive Acoustic Monitoring Buoy	36° 52' 33.5172" N	075° 28' 39.4284"W	May-24	Jun-24
B2-P1	Passive Acoustic Monitoring Buoy	36° 54' 51.57" N	075° 29' 10.23" W	May-24	Jun-24
B3-P1	Passive Acoustic Monitoring Buoy	36° 58' 23.07" N	075° 28' 00.94" W	May-24	Jun-24



B4-P1	Passive Acoustic Monitoring Buoy	36° 59' 35.06" N	075° 23' 43.15" W	May-24	Oct-24
B5-P1	Passive Acoustic Monitoring Buoy	36° 55' 02.72" N	075° 25' 30.01" W	May-24	Aug-24
B6-P1	Passive Acoustic Monitoring Buoy	36° 51' 52.58" N	075° 24' 14.42" W	May-24	Aug-24
B1-P2	Passive Acoustic Monitoring Buoy	36° 52' 08.79" N	075° 20' 10.85" W	Jun-24	Aug-24
B2-P2	Passive Acoustic Monitoring Buoy	36° 57' 23.11" N	075° 19' 50.83" W	Jun-24	Aug-24
B3-P2	Passive Acoustic Monitoring Buoy	36° 59' 52.30" N	075° 17' 05.82" W	Jun-24	Aug-24
B4-P2	Passive Acoustic Monitoring Buoy	36° 58' 15.95" N	075° 15' 17.65" W	Sep-24	Oct-24
B5-P2	Passive Acoustic Monitoring Buoy	36° 55' 15.55" N	075° 15' 57.15" W	Sep-24	Oct-24
B6-P2	Passive Acoustic Monitoring Buoy	36° 51' 36.19" N	075° 18' 43.08" W	Sep-24	Oct-24
OSS B1	Passive Acoustic Monitoring Buoy	36° 55' 07.22" N	075° 25' 23.12" W	Aug-24	Aug-24
OSS B2	Passive Acoustic Monitoring Buoy	36° 55' 17.32" N	075° 16' 55.20" W	Aug-24	Aug-24
OSS B3	Passive Acoustic Monitoring Buoy	36° 50' 46.23" N	075° 20' 47.11" W	Aug-24	Aug-24
OSS B4	Passive Acoustic Monitoring Buoy	36° 54' 02.16" N	075° 21' 08.31" W	Aug-24	Aug-24





Passive Acoustic Monitoring Buoy

Munitions and Explosives of Concern (MEC) Identification and Relocation:

MEC *identification* activity is nearly complete, and MEC *relocation* activities are on-going. MEC, formally referred to as Unexploded Ordnance (UXO), must be relocated to provide a safe working area within the export cable



corridor to install the export cables and for the safe installation of monopile foundations and inter-array cables in the Lease Area. The final positions of MEC will be advertised to the public upon completion.

M/V HOS MYSTIQUE will continue MEC relocation activities in and around the export cable corridor offshore (Area 2, as shown below), followed by concurrent relocation efforts in the NW section of the Lease Area and the section of Area 1 (shown below) in the vicinity of the Dam Neck Ocean Disposal Site (DNODS). M/V HOS BAYOU joined the MEC relocation project in late April, at the same time the HOS INNOVATOR and the HOS WARLAND demobilized and left the project. Vessels engaged in MEC operations will fly the international maritime signaling flag bravo:



The U.S. Coast Guard (USCG) published <u>Docket Number USCG-2024-0081 to the Federal Register</u> to establish a temporary safety zone for navigable waters within a **1,000-yard radius** of MEC Project Vessels. Operations are planned to relocate MEC in the Atlantic Ocean, within 12 miles of the shores of the State Military Reservation in Virginia Beach, Virginia. The safety zone is needed to protect personnel, vessels, and other mariners from potential hazards created by these operations. Entry of vessels or persons into this zone is prohibited unless specifically authorized by the Captain of the Port, Sector Virginia or a designated representative (Master of the vessel conducting MEC operations).

This rule is effective and subject to enforcement from January 26, 2024, through July 1, 2024. The USCG will issue a Broadcast Notice to Mariners via VHF-FM marine channel 16 when the zone is being enforced. For vessels requesting to enter the Safety Zone, coordinate with Project vessels on VHF Ch 16 prior to entry or with USCG.

Operations will also be conducted outside the 12 nautical mile boundary, both within the export cable corridor and the Lease Area (ALARP Area 2). There will not be an established USCG safety zone surrounding these MEC operations; however, vessels are requested to maintain a 1,000-yard exclusionary zone surrounding project vessels flying the bravo signaling flag conducting relocation activities.

Relocation activities started in ALARP Area 2 in late February along the export cable corridor and will then move to the WTG sites in ALARP Area 3 (see the below chartlet).



Marine Debris Relocation

The **M/V Atlantic Breeze** will be conducting light debris relocation in support of the MEC relocation work throughout the cable corridor. This activity will be conducted during the scope of MEC relocations. The use of remote-operated vehicles (ROVs) and the associated cabling necessitates an exclusion area around the operation. The vessel is requesting an exclusion zone of $\sim \frac{1}{4}$ -mile (500m) surrounding the vessel operations, mariners are encouraged to contact the vessel on VHF Ch 16 to establish any passing arrangements necessary.

Direct Pipe Punchout Construction

Project contractors began construction activities onshore at and offshore of the State Military Reservation (SMR) in Virginia Beach, VA, in late February. These construction activities support the offshore export cable landing sites within the SMR property, which will run via underground conduit (using Direct Pipe methodology and micro tunnel boring machines) from transition joint bays (TJBs) more than 325 feet (~100m) shoreside of the beach to predetermined positions approximately 1,310 feet (~400m) offshore. The first phase of Direct Pipe installation was completed in March 2024, and operations have been purposefully paused with a scheduled resumption in May 2024. Installations for Direct Pipe conduit installations are planned to continue through June, July with a scheduled completion in August 2024. Installations of the TJBs will begin in May 2024 and will continue throughout the remainder of 2024 and into early 2025.



Component arrival at Portsmouth Marine Terminal

During the month of May, there are several scheduled arrivals of components to Portsmouth Marine Terminal (PMT). Additionally, M/V ORION will begin outbound transits from PMT loaded with up to 6 monopiles at a time, bound for the lease area to begin installation activities.

Component Arrivals	Transportation Vessel
6 Transition Pieces	M/V SUN RISE
4 Monopiles	M/V SUN RISE

Current Components Staged at Portsmouth Marine Terminal (as of May 1, 2024)
36 Monopiles
12 Offshore Substation Pin Piles

Fisheries Resource Characterization Studies

Dominion Energy is working with the Virginia Institute of Marine Science (VIMS), the Virginia Marine Resource Commission (VMRC) and commercial fishermen to study Black Sea Bass, Channeled Whelk and Atlantic Surfclam in and near the project area, especially the areas shown in the chartlets below. The use of new acoustic release device technology avoids the need for vertical lines and marker buoys in the water.

- Black Sea Bass: The study consists of 8 strings of ventless traps with 6 traps per string. Sampling once per month, with a 48-hour soak and acoustic release buoys are utilized to recover the gear. The chart below displays the study area, which includes locations south of the Lease Area. The study is currently taking place utilizing the VIMS R/V Bay Eagle and will continue through 2024. The study area is outlined in pink below.
- **Channeled Whelk:** The study uses 18 strings of 7 pots, a 48-hour soak time and recovery by acoustic release buoys. This cooperative study will be completed in partnership with local commercial whelk fishermen, and activities will continue through 2024. The study area includes the southern portion of the CVOW lease site (with future turbine locations) and a control area outside the Lease Area. The entire study area is outlined in green below.



Mariners are encouraged to contact Dominion Energy's Fisheries Liaisons with any specific questions about CVOW project activities in relation to fisheries. Additional project information is available on the <u>CVOW project</u> <u>website</u>. Sign up to receive USCG Local Notice to Mariners Updates: <u>Subscribe to Our RSS Feeds | Navigation</u> <u>Center (uscg.gov)</u>





Project Vessels:

Installation Site Vessels



Vessel Name	ORION
Length	705'
Call Sign	ORMB
IMO Number	9825453
MMSI	2057550000
Vessel Type	Offshore Heavy Lift DP3 Installation Vessel



Vessel Name	GO FREEDOM
Length	150'
Call Sign	WDK6647
IMO Number	8998100
MMSI	368076640
Vessel Type	Offshore Supply Vessel





Vessel Name	GO PATRIOT
Length	150'
Call Sign	WDJ4988
IMO Number	8987852
MMSI	367783120
Vessel Type	Offshore Supply Vessel



Vessel Name	ATLANTIC OCEANIC
Length	150'
Call Sign	WAOZ
IMO Number	9285275
MMSI	366907000
Vessel Type	Offshore Supply Vessel – Bubble Curtain Installation Vessel



UXO/MEC Identification and Relocation Vessels



Vessel Name	HOS BAYOU
Length	302'
Call Sign	WDH2368
IMO Number	9647681
MMSI	367596850
Vessel Type	Offshore Supply Vessel



Vessel Name	HOS MYSTIQUE
Length	250'
Call Sign	WDE3118
IMO Number	9472323
MMSI	367334320
Vessel Type	Offshore Supply Vessel







Vessel Name	ATLANTIC BREEZE
Length	205'
Call Sign	WDN9550
IMO Number	9191515
MMSI	338228000
Vessel Type	Offshore Supply Vessel





Vessel Name	ATLANTIC POWER
Length	255'
Call Sign	3EXY
IMO Number	9369552
MMSI	372607000
Vessel Type	Offshore Supply Vessel

Transportation Vessels



Vessel Name	SUN SHINE
Length	571'
Call Sign	D7DB
IMO Number	9471616
MMSI	440040000
Vessel Type	Heavy Lift Transport Vessel



Vessel Name	SUN RISE
Length	554'
Call Sign	D7GU
IMO Number	9623219
MMSI	440032000
Vessel Type	Heavy Lift Vessel





Vessel Name	CHARLIE
Length	482'
Call Sign	V2HK6
IMO Number	9736236
MMSI	305543000
Vessel Type	Heavy Lift Vessel

Fisheries Resource Characterization Survey Vessels



Vessel Name	R/V BAY EAGLE
Length	65'
Call Sign	WBR3978
MMSI	366749460
Vessel Type	Research Vessel



Vessel Name	F/V THOMAS REED
Length	49'
MMSI	367187470
Vessel Type	Commercail Fishing Vessel





Vessel Name	F/V LADY ISLA
Length	47'
MMSI	338495354
Vessel Type	Commercial Fishing
	Vessel





We remain committed to maintaining communications with fishing communities and other mariners in the area via these periodic updates, informational speaking engagements and dock visits. This information is also posted on the CVOW website.

For further information, please contact the following individuals or submit a comment on the CVOW website for response.

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