UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
ATLANTIC OUTER CONTINENTAL SHELF

INCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **13-Sep-2024** TIME: **2250** HOURS

2. LEASE: **OCS-A 0501**
   LATITUDE:
   LONGITUDE:

3. PLATFORM: **WTG AS-42**
   VESSEL NAME:

4. ACTIVITY:
   - ☐ SURVEY
   - ☐ CONSTRUCTION
   - ☑ COMMISSIONING
   - ☐ OPERATION
   - ☐ DECOMMISSIONING

5. TYPE:

INJURIES:	OPERATOR	CONTRACTOR
☑ REQUIRED EVACUATION.		1
☐ LTA (1-3 days).....		
☑ LTA (>3 days).....	1	
☐ RW/JT (1-3 days)....		
☐ RW/JT (>3 days).....		
☐ FATALITY.....		
☐ Other Injury.....		

- ☐ ENVIRONMENTAL DAMAGE OR HARM
- ☐ SPILL
- ☐ FIRE
- ☐ EXPLOSION
- ☐ COLLISION
- ☐ STRUCTURAL DAMAGE
- ☐ CRANE
- ☐ PERSONNEL/MATERIAL HANDLING
- ☐ DAMAGED OR DISABLED SAFETY SYSTEMS
- ☐ INCIDENT >$25K
- ☐ REQUIRED MUSTER
- ☐ OTHER:

6. OPERATOR: **Vineyard Wind 1**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Jan De Nul Group**
   REPRESENTATIVE:
   TELEPHONE:

7. CAUSE:
   - ☐ EQUIPMENT FAILURE
   - ☑ HUMAN PERFORMANCE ERROR
   - ☑ WORK ENVIRONMENT
   - ☐ SUPERVISION
   - ☐ COMMUNICATION
   - ☐ MANAGEMENT SYSTEMS
   - ☐ PERSONNEL TRAINING
   - ☐ OTHER:

8. WATER DEPTH: FT.

9. DISTANCE FROM SHORE: MI.

10. WIND DIRECTION: SPEED: M.P.H.

11. CURRENT DIRECTION: SPEED: M.P.H.

12. SEA STATE: FT.

13. PICTURES TAKEN:

14. STATEMENT TAKEN:

15. INVESTIGATION FINDINGS:

On September 13, 2024, a falling from heights incident resulting in a serious injury occurred on Wind Turbine Generator (WTG) AS-42 of the Vineyard Wind 1 Offshore Wind Farm (VW1), Lease OCS-A 0501. A team of contractors were on the WTG to perform cable testing.

At 2250 hours, a team of six contractor personnel transferred from the C-Pioneer Offshore Supply Vessel (OSV) to the WTG AS-42 to perform Optical Time-Domain Reflectometry (OTDR) and Oversheath testing of cables as part of WTG commissioning. The team conducted a safety briefing and a toolbox talk discussing the day's tasks and hazards before beginning work.

Once the toolbox talk was complete, a field service technician (Tech1), climbed down two levels of the tower, with his helmet including head lamp, onto the Termination level. A lift bag, containing a portable light and tools needed to complete the work, had already been lowered to the Termination level where it sat on top of a closed hatch and inside of a handrail barrier on the Termination level. Tech1 set up a portable light and removed a section of the handrail barrier to slide the lift bag off of the hatch. Once the bag had been moved, Tech1 then opened the hatch to eventually lower tools to the Hangoff level below. Tech1 did not replace the handrail barrier around the open hole.

At this time, another service technician, the resulting injured person (IP) climbed down, without his climbing helmet, to the Termination level and joined Tech1 in looking through the lift bag, which was located approximately 27 inches from the edge of the open hatch. While retrieving equipment from the bag, the IP fell backwards through the open hatch, approximately 17.4 feet to the Hangoff level below, sustaining serious injuries to his head and face. The IP was transferred from the WTG to the C-Pioneer, then to the OSV Cade Candies, and was subsequently evacuated by a United States Coast Guard helicopter to Rhode Island Hospital in Providence, Rhode Island.

As a result of the incident the operator performed a safety stand down and conducted additional training with personnel.

The Bureau of Safety and Environmental Enforcement (BSEE) was notified of the incident on September 14, 2024, at 0122 hours. BSEE subsequently conducted interviews with all relevant personnel, including the IP, all technicians involved in the working party, on-board paramedics who assisted in transporting the IP, and the Health, Safety, and Environment (HSE) representatives from both the lessee and the contractor. Additionally, BSEE reviewed provided drawings, JDR cable systems' (JDR) investigation report, and examined supporting documentation.

BSEE found that several factors contributed both to the fall-from-heights incident and to the severity of the injury. Tech1 did not establish or follow an appropriate safe hatch/handrail barrier control sequence to ensure that effective physical barriers or equivalent controls were in place. After the open-hole existed, the work party, including the IP, did not properly follow working-at-height safety measures, such as applying fall protection and using appropriate personal protective equipment (PPE).

Based on BSEE interviews, the IP's memory loss as a result of the injury, and the information provided, BSEE was unable to determine whether the IP was aware of the open hatch or the exact circumstances that led to the IP's fall into the open hatch. However, the Task Risk Assessment for the procedure being performed identified the hazard of a fall from height and specified mitigations including: wearing a fall-restraint work-positioning line when a hatch is open, remaining behind the hatch barrier at all times, and warning all personnel prior to opening the hatch. In addition, the toolbox briefing notes reviewed and signed by the IP, Tech 1, and the remainder of the work party immediately before the job on the day of the incident included controls for working at heights and direction to never work near a leading edge without being in a work-restraint system.

Poor lighting at the termination level, combined with the IP not wearing a helmet equipped with a working lamp, further reduced visibility of the open-hole and nearby hazards, increasing the likelihood of the fall.

BSEE's investigation concluded that the fall happened due to human error. The causes include: (1) the IP was not using fall protection nor a safety helmet while working around the opened hatch, (2) Tech1 did not follow an open hole mitigation control sequence of reinstalling the handrail barrier, (3) lighting in the area was poor.

16. LIST OF PROBABLE CAUSE(S) OF INCIDENT:

Human Performance Errors:

- Failure to mitigate the open hole hazard prior to opening hatch.

- Not using fall protection while working around an open hole.

17. LIST OF CONTRIBUTING CAUSE(S) OF INCIDENT:

Human Performance Error: Not wearing a helmet which includes a head lamp

Work Environment: Poor lighting

18. LIST THE ADDITIONAL INFORMATION:

19. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

20. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

Recommend BSEE issue a Safety Alert regarding the incident to inform lessees and operators about the findings and recommendations related to human factors, working from heights, open holes, and emergency evacuation.

21. POSSIBLE VIOLATIONS RELATED TO INCIDENT:

22. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

23. DATE OF INVESTIGATION:

14-Sep-2024

24. INVESTIGATION TEAM MEMBERS:

25. DIRECTOR OF ATLANTIC OPERATIONS:

Jonathan Fraser

26. APPROVED DATE: **23-Dec-2025**