

FILE

# Confidential Release

Case number: 18-0091-EL-BGN

Date of Confidential Document: 10/22/2020

Release Date: 9/23/2021

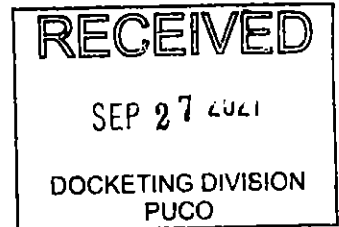
Page Count: 5

Document Description: Incident Report - pages 2, 5, 6, 8, and 9

**"Consent to Release to the PUCO DIS Website"**

Name July S. Agnoff  
Reviewing Attorney/Examiner's Signature

Date Reviewed 9/27/21



This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.  
Technician JTH Date Processed 9-27-21

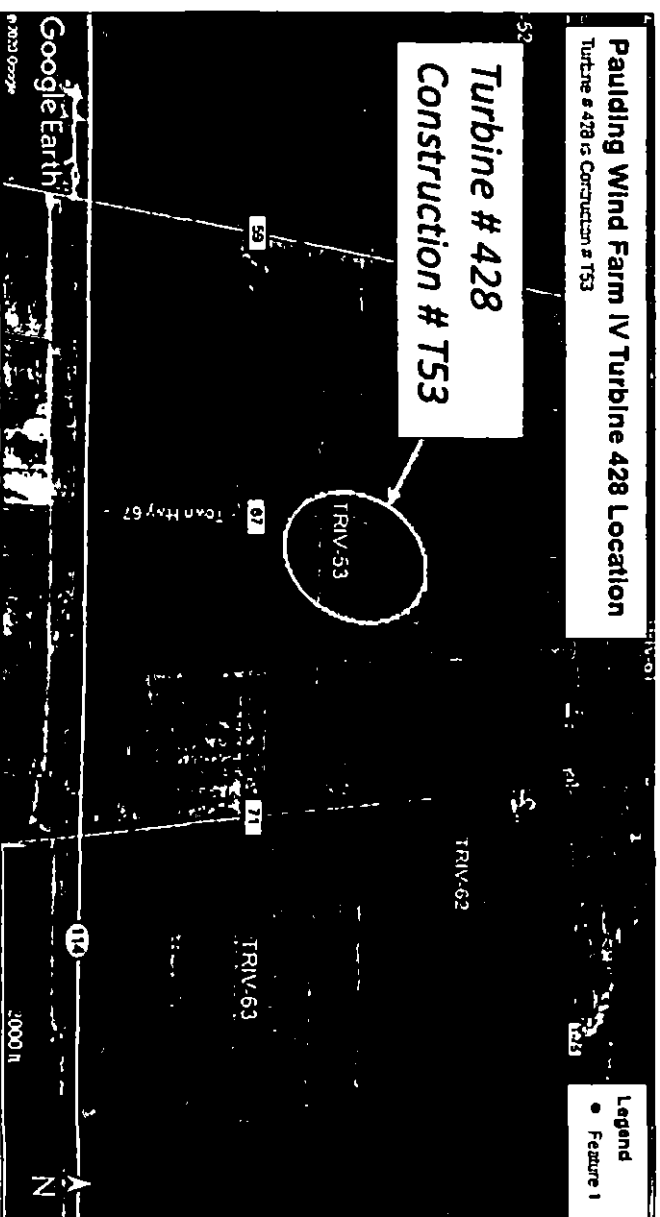
## Public and Site Personnel Safety Precautions

On September 3, 2020 at approximately 22:36 hours local time, a Vestas V150 4.2MW wind turbine at Paulding Wind Farm IV ("Timber Road IV") in Paulding County experienced a blade failure. Damaged blade debris has fallen to the crane pad and within an approximate 90-meter radius around the turbine.

Timber Road IV is a 126MW generating facility that consists of 24 Vestas V150 4.2MW and 7 Vestas V136 3.6MW turbines.

The Timber Road IV operations team mobilized to the turbine at 06:45 to ensure no additional hazards were present. After initial visual inspection of the turbine and surroundings, the operations team implemented actions to secure the area around the turbine. Those actions included notifying landowners and closing access roads leading to the affected turbine 428.

No injuries to personnel or the public occurred. No property damage was sustained beyond the turbine equipment.



## Weather Conditions & Turbine Operation

---

The review of weather conditions based on the information available does not indicate severe weather conditions in the area around the time of failure.

- While lightning cannot be ruled out, no immediate evidence is available showing lightning in the area since July 28, 2020
- No evidence of sudden wind speed or wind direction change
- No evidence of high wind or overspeed condition

Initial review of the turbine operation data, alarm logs and environmental data has not revealed potential contributors to the failure. A more complete analysis is underway and will necessitate a field engineering investigation of the damaged blade to identify, confirm or rule out contributors and causes.

The failed blade manufacturing records did not reveal any identified deviations in quality and the blade received Vestas' Statement of Quality. Factory rework completed in the root section of the blade during manufacturing was noted, and the condition of this rework will be inspected as part of the onsite investigation. Shell rework is common practice as part of the blade manufacturing process.

## Activities and Next Step

---

Timber Road IV will continue to monitor and control the area around turbine 428.

A thorough inspection of turbine 428 was completed during the first climb on September 22. Multiple drone flights were completed prior to the first climb to ensure safety and develop a plan for Safe Approach.

All blades have gone through external inspections on September 5-6. As an additional step to ensure safe operation, Vestas and Timber Road IV executed Internal blade inspections on all V150 blades between September 17 and September 29. Vestas Engineering has reviewed the inspection material and all blades have been cleared for continued operation. Two blades have been noted for a follow-up inspection to collect additional measurements, but there are no meaningful nor immediate concerns related to the blade integrity and operability.

Preparations are underway to ready a crane and necessary equipment to remove the damaged root section of the failed blade. This work is currently scheduled during the week of October 5. Once the remaining blade section is safely removed, Vestas and Timber Road IV Engineering will be on site to perform the field investigation. This material will be incorporated into Vestas' root cause analysis. This root cause analysis and final incident report is expected to take several weeks after the field investigation. Timber Road IV intends to submit the same to OPSB once the full root cause analysis is completed and the report becomes available.

Return to service activity summary:

- Deliver replacement blade to site (currently scheduled for December)
- Deliver all other parts, tooling and equipment to site
- Re-install new blade

## Incident Description – Photos

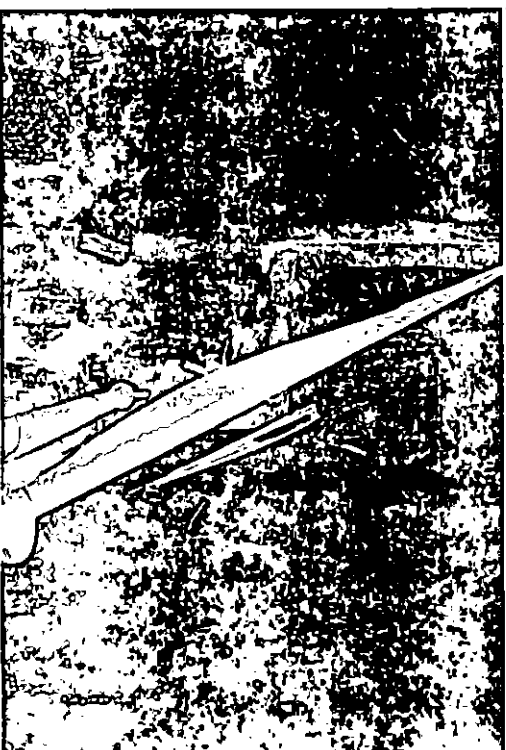
<< CONFIDENTIAL – CONTAINS PROPRIETARY  
AND/OR TRADE SECRET INFORMATION >>



*Blade broke at the root*



*Blade debris fell directly beneath turbine*



## Incident Description – Initial Photos

<< CONFIDENTIAL – CONTAINS PROPRIETARY  
AND/OR TRADE SECRET INFORMATION >>

