



Material falling from the nacelle



QSE alert

Associated non-conformity code: EV.0000001444

This document contains public information and it is intended to share the lessons learnt from incidents and risk situations that could be of interest to others in the same sector as Acciona Energía.

This document may undergo updates due to the collection and analysis of better information, because of technical advances and the proposed measures etc. For this reason, it is very important to check with Acciona Energía for the latest versions of the issued alerts.

SCOPE

- Worldwide Local. Country:
- | | | | |
|--|--|---------------------------------------|--|
| <input checked="" type="checkbox"/> All Businesses | <input type="checkbox"/> Construction | <input type="checkbox"/> Production | |
| <input type="checkbox"/> All Technologies | <input checked="" type="checkbox"/> Wind Power | <input type="checkbox"/> Hydraulic | <input type="checkbox"/> Thermo-electric |
| | <input type="checkbox"/> Photovoltaic | <input type="checkbox"/> High voltage | |
- Others. Specify

FACTS

An incident occurred at a wind farm during the work involved in changing the hydraulic unit oil.

The technicians were lifting jerry cans of oil in order to change the hydraulic unit oil. There were twelve jerry cans, each containing approximately 25 litres. The usual way to carry out these tasks is: to first empty the used oil from the hydraulic unit and then make several journeys to lower the jerry cans of used oil and to lift the jerry cans of new oil.

During the operation to remove the jerry cans from the lifting bag and replace them with others, in one of the movements, the technician pushed one of the jerry cans that was near the nacelle door which then passed between the floor and the opening between the lower safety handrail on the door, it fell to the ground and caused a 25-litre oil spill around the wind turbine.



Close-up of the area where the incident occurred, showing the jerry can dimensions with respect to the lower handrail.



LESSONS LEARNT

- It is forbidden to remain inside the indicated area around the turbine. Once the load is secured to the hoist hook and prior to commencing the ascent, the corresponding person must exit the indicated danger area.



This incident reveals the safety benefits of this regulation.

- If a technician has to access the delimited area or inside the wind turbine, he must:
 - Prior to accessing the delimited area, he must notify the personnel carrying out the tasks in the indicated area of his intention to access it.
 - He may not access the delimited area or inside the turbine until he has received authorisation from the technician working on the higher level.
 - The technicians working inside the turbine must finalise or cease the work that involves any risk of falling objects before giving access authorisation.
- No items that might fall may be left near the nacelle trapdoors or doors when they are open.
- Keep the trapdoors and doors closed once the load has been lifted inside and before storing or manipulating the material.
- Follow the instructions given on the Sheets covering the Action to Take in Case of an Emergency, FA_PE.003, on incidents involving chemical products:



- Attempt to neutralise the spill, where possible.
- Suitable protective equipment must be used during spill neutralisation, gloves providing protection against chemical products, splash-proof goggles and/or respiratory protection according to the instructions on the safety information sheet for the spilled chemical product).
- Attempt to contain the spill using a soil or sepiolite barrier.
- The spilled product must not be allowed to reach any water courses.
- In collaboration with the Emergency Manager remove all the contaminated absorbent material and soil and treat it as hazardous waste.
- **IMPORTANT:**
If aggressive substances come into contact with the skin or eyes, rinse them immediately with abundant water.
If the substance is spilled onto clothing, remove it immediately so that it cannot come into contact with the skin.