SAFETY ALERT
Shared Learnings

Meridian.

INCIDENT TITLE:

The importance of effective communication and testing for zero when working on hydraulic systems.

TIME AND DATE OF INCIDENT:

Thursday 19th May 2022

INCIDENT DETAIL :

During annual service, an experienced wind technician team picked up that valve 116 was leaking oil and valve 109 had failed on all three blades. Both these valves were in the hub of a Siemens 2.3 WTG. The authorised tech (AT) work party leader applied the isolations to allow hub access. The hub technician knew he had to bleed all three accumulator valves. Upon bleeding 2 of the 3 valves, it was then noticed that the hand controller was placed on the pig's nose with a potential to fall and some other tidying up was required so the technician changed focus to address this. This distraction led to the 3rd blade accumulator valve to be overlooked. The tech replaced valve 116 on this blade with no issue as this was on a non-pressurised side of the system. When moving onto valve 109 a spanner was put on it and winding out commenced. The tech assumed this had no pressure on it as there was no indication when the tool was applied. When the valve was at its last thread it released a spray of high-pressure oil covering the technician.

INITIAL RESPONSE AND INVESTIGATION OUTCOMES :

The technician realised the error and proceeded to make safe, fully de pressurise the system and clean oil up in hub. The event was reported, and no one was hurt.

The learning team agreed the potential was high for the valve to have released under pressure and hit the technician in the restricted space of the hub. The hydraulic system schematic drawings confirmed the pressure at that valve would have been in the ranges of 120 - 200 bar.

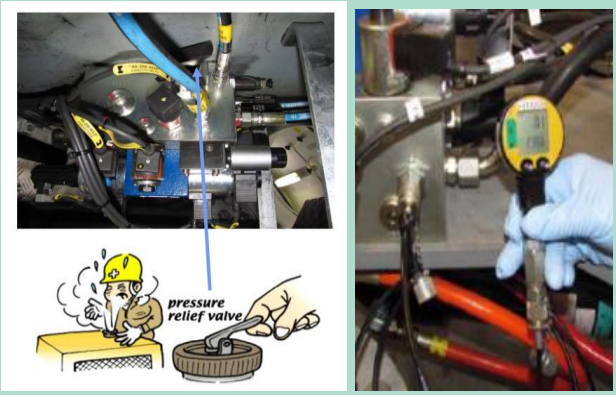
LEARNINGS AND RECOMMENDATIONS FROM THIS INCIDENT:

Even though a distraction was a contributing factor in this event it was acknowledged that good communication when working in a turbine is a critical control when performing various isolations and critical steps that require verification.

The team discussed how they would always prove test prove before touch if working on electrical systems and compliancy had crept in by not testing for zero pressure before touch on this hydraulic system as per training.

The service AWP did not contain a signature check point to ensure the accumulator blades valves were discharged and to measure with the manometer at the correct test point for zero. This has since been amended.

PHOTO:



THE CORPORATE SAFETY AND HEALTH TEAM ARE CURRENTLY WORKING ON SYSTEMS TO SUPPORT THE ABOVE LEARNINGS. IF INTERESTED IN VIEWING THE FULL INVESTIGATION REPORT FOR THIS INCIDENT, IT CAN BE FOUND HERE:

The full Learning Team can be found in Safety Manager I.d.1278592