## Notifiable incident

Incident ID	<u>5507</u>
Duty holder:	INPEX Operations Australia Pty Ltd
Facility/Activity:	CPF Ichthys Explorer
Facility type:	Other platform with accommodation facilities when drilling/workover facilities are not in commission

Incident details	
Division	Occupational Health and Safety
Notification type	Incident
Incident date	22/07/2018 04:00 AM (WST)
Notification date	24/07/2018 01:50 PM (WST)
NOPSEMA response date	24/07/2018 02:45 PM (WST)
Received by	
Nearest state	WA
Initial category type (based on notification)	Dangerous Occurrence
Initial category (based on notification)	Could have caused death or serious injury
3 Day report received	25/07/2018
Final report received	21/08/2018
All required data received	21/08/2018
Final category type (based on final report)	Dangerous Occurrence
Final category (based on final report)	Could have caused death or serious injury
Brief description	OHS - DODSI - risk of electrical shock
Location	Deck
Subtype/s	Electrical
Summary (at notification)	electrical work was authorised where the equipment was live. OIM advised that a dangerous occurrence happened on the 22 July 2018. A technician conducting a EEHA inspection on a black start air compressor motor. Before starting work he test wires for dead - and found2 of 4 wire were live. The drawings available only showed 2 wires where as in fact there were 4. The technician replaced cover, reported to supervisor, who cancelled the work and is conducting investigation. Rt rang back at 14;47 but no answer.

<b>Details</b> (from final report)	electrical work was authorised where the equipment was live. OIM advised that a dangerous occurrence happened on the 22 July 2018. A technician conducting a EEHA inspection on a black start air compressor motor. Before starting work he test wires for dead - and found2 of 4 wire were live. The drawings available only showed 2 wires where as in fact there were 4. The technician replaced cover, reported to supervisor, who cancelled the work and is conducting investigation. rang back at 14;47 but no answer.
	On the 22nd July 2018, the involved persons were tasked with 'performing a detailed EEHA inspection and rectification work if required,' as stated within their valid and approved permit. Electrical isolations were approved to be completed under "own isolation" philosophy, the permit pack was verified to have contained all appropriate and approved documents and all persons involved in the task were verified as trained and competent for their role. The work party had completed inspections on two air compressor motors before moving onto the
	<ul> <li>Black Start Air Compressor. As per the approved isolation list, Technician1 racked out B-680-KM-005</li> <li>which was believed to have isolated the 230VAC contacts in the respective Black Start Air Compressor</li> <li>Emergency-Stop (E-Stop) Local Control Station (LCS).</li> <li>On arriving in the field the work party noticed that there were two cables entering the LCS. They</li> <li>commented that this was unusual. The work party referred to the Motor Control Schematic and</li> <li>verified that there was only one cable indicated on the drawing and that it should have been</li> <li>effectively isolated by application of the own isolation.</li> <li>The unusual situation caused the technicians to proceed with caution expecting that the LCS may have</li> <li>been wired incorrectly. Technician2 removed the E-Stop LCS cover, exposing the contact block, and</li> <li>Technician 1 used his multi-meter to test the four contacts. Of these, two (11 and 12) were found to</li> <li>have no voltage however two contacts (21, 22) were found to be energised (230VAC). The work party</li> <li>refitted the LCS cover, notified appropriate personnel and investigation commenced.</li> <li>Investigation found that the respective E-Stop was designed and installed to function for both the</li> <li>Black Start Air Compressor Motor and the Black Start Air Compressor Cooling Fan, resulting in a dual</li> <li>supply of power to the E-Stop; this is permitted as per clause 2.3.5.2 of AS/NZS3000. Schematics</li> <li>utilised to develop the isolation list did not adequately depict the dual power source and so</li> <li>inadequate isolations were applied.</li> </ul>
	Actions: Update Label for E-Stop B-680-HSE-005 to clearly indicate that a dual supply exists. Mark-up relevant drawings for E-Stop B-680-HSE-005 to clearly indicate that dual supply exists. Conduct a survey of similar CPF electrical installations to identify any other instances of E-Stop or similar Local Control Stations having dual supply. Review and update drawings / labels as appropriate and in accordance with AS/NZS3000.
Immediate cause/s	The drawing with the PTW showed only 2 wires connected to the E-stop, where in fact there were 4. In the field there was no label/notice on the E-stop indicating that there was more than one supply contained within the E-stop.
Root cause/s	HPD - MGMT SYS - Stds, policies, admin controls NI - prints NI
Root cause description	Standards, Policies or Admin Controls (SPAC) Need Improvement– drawings / prints need improvement. Relevant drawings for the 'Black Start Air Compressor Emergency-Stop' (and associated equipment) did not adequately identify dual power supply.

Duty inspector recommendation	
Date	24/07/2018
Duty inspector	
Recommendation	Do not conduct Major Investigation
Reasoning	Does not meet MI threshold based on information received
Supporting considerations	

Major investigation decision	
Date	25/07/2018
Decision	Do not conduct Major Investigation
Reasoning	Does not meet MI threshold based on information received
Supporting considerations	

Non-major investigation review and recommendation	
Date	25/07/2018
Inspector	
Risk gap	Moderate
Type of standard	Established
Initial strategy	Investigate

Recommended follow up strategy	
Recommended strategy	Investigate
Supporting considerations	Detail debrief was provided by INPEX at NOPSEMA on 25/7/18 requested by NOPSEMA. 2 electrician conducting EEHA inspection on black start air compressor under ISSOW and Isolation controls. 2 cable (out of 4) in E stop terminal box found still energised. The identification was the result in the "test for dead" protocol applied on the facility. The electrician was not exposed to risk of electrical shock. Equipment was reinstated (Made safe). The faults was reported to supervisor. Electrical drawing does not reflect actual installation. Investigation by INPEX has commenced. Incident is currently classed as HPI by INPEX.
	next planned inspection (onshore) PI 1776 in Sept 2018.

Non-major investigation decision	
Date	25/07/2018
RoN	
RoN review result	Agree with recommendation
Strategy decision	Investigate
Supporting considerations	
Associated inspection	
Inspection ID	1776