Notifiable incident

Incident ID	**5611**
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	30/09/2018 10:55 PM (WST)
Notification date	04/10/2018 04:11 PM (WST)
NOPSEMA response date	04/10/2018 04:19 PM (WST)
Received by	[redacted]
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	07/10/2018
Final report received	30/10/2018
All required data received	30/10/2018
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-Live terminals found in equipment after isolation
Location	Process deck
Subtype/s	Electrical
Summary *(at notification)*	Operator advised that an electrical technician had electrically isolated the lighting and auxiliary system for export gas compressor #2 to conduct an EEHA inspection as per the electrical isolation certificate. However when he tested for 'dead' he found that one terminal was still live (240V). He replaced the cover on the equipment and reported to this supervisor. The operators justification for late notification was due to internal discussion about categorisation based on potential outcomes.

Details *(from final report)*	Operator advised that an electrical technician had electrically isolated the lighting and auxiliary system for export gas compressor #2 to conduct an EEHA inspection as per the electrical isolation certificate. However when he tested for 'dead' he found that one terminal was still live (240V). He replaced the cover on the equipment and reported to this supervisor. The operators justification for late notification was due to internal discussion about categorisation based on potential outcomes. Gas Export Compressor 2 (GEC) junction box for lighting and auxiliary systems was isolated as per the Electrical Isolation Certificate (EIC) for Electrical Equipment in Hazardous Areas (EEHA) inspection work. One cable inside the junction box was found to be live when it was tested for dead. This investigation was conducted by the facility HSE Advisor and subject matter experts in accordance with the INPEX Event Reporting and Investigation Procedure. On the 14 Sept 2018 an Electrical Isolation Certificate (EIC) and associated isolation list was prepared for a planned Electrical Equipment in Hazardous Area (EEHA) inspection on GEC2 Junction Box. The EIC was then reviewed and subsequently approved for isolation as per Integrated Safe System of Work (ISSOW) requirements. On 30 Sept 2018 a Category 2 Hot Work Permit was endorsed to enable the planned EEHA inspection to commence. Upon opening the junction box the Permit Holder performed a test for dead as per normal routine and found the 240v feed to be live. At this point the cover was immediately replaced and the issue reported to Permit Holders supervisor. The investigation revealed that when the isolation list was developed, the supply circuit for GEC2 normal lighting was not captured in the isolation list as the incoming supply was not denoted on the package hook-up and wiring diagram. The investigation team identified further issues with the electrical schematics and hook-up and wiring diagrams that created an error inducing condition.
Immediate cause/s	Under Investigation.
Root cause/s	ED - Rpt Failure - MGMT SYS - Corrective action - CA NI, HPD - MGMT SYS - Stds, policies, admin controls NI - prints NI
Root cause description	The circuit numbers for the emergency lighting are identical to the normal lighting numbers, with the only identifiable difference being the terminal strip number. Multiple deficiencies in the electrical drawings available. The incoming supply is not denoted on the package hook-up and wiring diagram. This is a recurrence of previous issues in relation to live equipment on this operator's facilities indicating that previous corrective actions have not adequately addressed the root cause.

Duty inspector recommendation	
Date	05/10/2018
Duty inspector	[redacted]
Recommendation	Do not conduct Major Investigation
Reasoning	Does not meet MI threshold based on information received
Supporting considerations	

Major investigation decision	
Date	05/10/2018
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	08/10/2018
Inspector	[redacted]
Risk gap	Moderate
Type of standard	Established
Initial strategy	Investigate

Recommended follow up strategy	
Recommended strategy	Investigate
Supporting considerations	The DA reported is new isolation based on SDL / Circuit diagrams and isolation was managed under EIC regime. The life cable was identified by electrician as the facility has established procedure to conduct "proof for dead" prior to any work. The discovery of life cable is most likely SDL as-built errors resulted in effective isolation. The electrician followed due process of making the equipment safe after the discovery and reported the findings to his supervisor. The facility has previous incident associated with life cable (black start air compressor). Operators has conducted a number of checks in equipment under "packages" i.e. Atlas Copco, GE, HVAC, sea water lift pumps and EDG (see PI 1776 report) - to date there were no findings. Even with procedure in place, there is a likelihood of single fatality, it the electrician has not followed established procedure. I suggest that this incident to be followed up in next planned inspection [redacted]

Non-major investigation decision	
Date	09/10/2018
RoN	[redacted]
RoN review result	Agree with recommendation
Strategy decision	Investigate
Supporting considerations	Agreed.

Associated inspection	
Inspection ID	1845