Notifiable incident

Incident ID	5665
Duty holder:	INPEX Operations Australia Pty Ltd
Facility/Activity:	Ichthys Venturer
Facility type:	Floating production storage and offloading facility

Incident details	
Division	Occupational Health and Safety
Notification type	Incident
Incident date	29/10/2018 01:00 PM (WST)
Notification date	29/10/2018 05:35 PM (WST)
NOPSEMA response date	29/10/2018 06:16 PM (WST)
Received by	[redacted]
Nearest state	WA
Initial category type *(based on notification)*	Dangerous Occurrence
Initial category *(based on notification)*	Unplanned event - implement emergency response plan
3 Day report received	01/11/2018
Final report received	27/11/2018
All required data received	27/11/2018
Final category type *(based on final report)*	Dangerous Occurrence
Final category *(based on final report)*	Unplanned event - implement emergency response plan
Brief description	OHS - UPE - GPA caused by main power failure
Location	Engine room
Subtype/s	Alarm, Emergency response, Muster
Summary *(at notification)*	- The OIM reported that a main power generator (MPG) failure was experienced at approximate13:00 hrs 29/10/2018; - the reason for the power outage was due to MPG trip due to low diesel pressure when facility technicians where starting a 2nd MPG; - the loss of main power caused the galley fire suppression system going to its default safe position giving indication of fire in the galley and setting off a GPA; - the facility mustered and the ERT team deploy to investigate confirming that it was a false alarm; - the OIM reported that the emergency generators functioned as expected during the main power loss; - the facility was in production status when the power outage occurred and the process was shut down; - the facility was in the process of re-starting the utilities when the OIM provided the verbal report to the duty inspector. 3 day report will be submitted in due course.

Details *(from final report)*	- The OIM reported that a main power generator (MPG) failure was experienced at approximate13:00 hrs 29/10/2018; - the reason for the power outage was due to MPG trip due to low diesel pressure when facility technicians where starting a 2nd MPG; - the loss of main power caused the galley fire suppression system going to its default safe position giving indication of fire in the galley and setting off a GPA; - the facility mustered and the ERT team deploy to investigate confirming that it was a false alarm; - the OIM reported that the emergency generators functioned as expected during the main power loss; - the facility was in production status when the power outage occurred and the process was shut down; - the facility was in the process of re-starting the utilities when the OIM provided the verbal report to the duty inspector. 3 day report will be submitted in due course. At 11:50 WST on 29/10/2018 the FPSO Ichthys Venturer experienced an unplanned alarm, resulting in a General Platform Alarm (GPA) and Persons on Board (POB) muster. When attempting to start Main Power Generator C (MPG), whilst MPG A was already running, there was a local package (MPG A) low diesel flow trip, which caused MPG A to trip with a subsequent Process Shutdown 2 (PSD2). Upon loss of power, the galley fire suppression wet chemical system (Ansul) failed to its safe state, which resulted in a Safety Instrumented System (SIS) output from the Ansul unit that initiated a GPA indicating a fire in the galley. The facility Emergency Response Team (ERT) was deployed and confirmed that it was a false alarm with no fire in the galley. FPSO Venturer mustered all persons who were accounted for. The facility stood down the muster of personnel and returned to normal status at 12:17 WST. There was no damage to asset or environment, investigation commenced. The investigation was completed in accordance with the INPEX Event Reporting and Investigation Procedure. The 5 WHYs failure elimination method was used. Investigation team comprised: • Site Engineer; • ICSS Commissioning Superintendent; • ICSS Engineer; • Control Room Operator; • Production Team Lead (PTL); • Responsible Person Electrical (RPE); • Operations HSE. Event Investigation Findings At 11:50 WST on 29 Oct 2018 the FPSO Ichthys Venturer experienced an unplanned alarm, resulting in a General Platform Alarm (GPA) and Persons on Board (POB) muster. When attempting to start Main Power Generator C (MPG), whilst MPG A was already running, there was a local package (MPG A) low diesel flow trip, which caused MPG A to trip with a subsequent Process Shutdown 2 (PSD2). Upon loss of power, the galley fire suppression wet chemical system (ANSUL) failed to its safe state, which resulted in a Safety Instrumented System (SIS) output from the ANSUL unit that initiated a GPA indicating a fire in the galley. This is the design intent. The facility Emergency Response Team (ERT) were deployed and confirmed that it was a false alarm with no fire in the galley. Investigation confirmed that on the 1 Oct 2018, a service on the galley fire suppression wet chemical system (ANSUL) had been completed. Initially a Management of Change (MOC) 200001586 for a long term bypass was raised for the ANSUL fire and gas interface and a Maintenance Override Switch (MOS) put in place to prevent accidental GPA, pending necessary software changes. This MOS was mistakenly removed when the service permit was closed out. Additionally, a MOC 200002733 was raised to rectify the ANSUL logic/hardwiring to the Safety Instrument System and is currently waiting a define solution.
Immediate cause/s	Power outage was due to MPG trip due to low diesel pressure when facility technicians where starting a 2nd MPG.
Root cause/s	HPD - HUMAN ENGINEERING - Complex system - knowledge-based decision required
Root cause description	Human error in removing MOS (maintenance override switch)

Duty inspector recommendation	
Date	30/10/2018
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	30/10/2018
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	30/10/2018
Inspector	[redacted]
Risk gap	None
Type of standard	Established
Initial strategy	Inclusion in annual stats/data analysis

Recommended follow up strategy	
Recommended strategy	Inclusion in annual report stats / data analysis
Supporting considerations	No credible significant consequences. Likelihood of minor consequences from a blackout and GPA remains remote - no risk gap. Standards - established per SoV for MPGs, galley fire suppression and GPA system.

Non-major investigation decision	
Date	31/10/2018
RoN	[redacted]
RoN review result	Agree with recommendation
Strategy decision	Inclusion in annual report stats / data analysis
Supporting considerations	

Associated inspection	
Inspection ID	