Notifiable incident

Incident ID	6293
Duty holder:	Shell Australia Pty Ltd
Facility/Activity:	Prelude FLNG
Facility type:	Floating liquefied natural gas facility

Incident details	
Division	Occupational Health and Safety
Notification type	Incident
Incident date	10/12/2019 10:00 PM (WST)
Notification date	12/12/2019 03:53 PM (WST)
NOPSEMA response date	12/12/2019 04:49 PM (WST)
Received by	[redacted]
Nearest state	WA
Initial category type *(based on notification)*	Dangerous Occurrence
Initial category *(based on notification)*	Other kind needing immediate investigation
3 Day report received	15/12/2019
Final report received	10/01/2020
All required data received	10/01/2020
Final category type *(based on final report)*	Dangerous Occurrence
Final category *(based on final report)*	Other kind needing immediate investigation
Brief description	OHS-OKNI-Isolation applied to incorrect filter
Location	
Subtype/s	Stored energy
Summary *(at notification)*	Operator advised that maintenance was to be conducted on the subsea MEG package. The intention was to change 1 of 7 filters on the package. An isolation was applied but after the maintenance it was identified that the incorrect filter had been isolated. The pump for the unit is remotely started and could have been started during maintenance resulting in injury due to working on a filter that had not been isolated. A safety standdown was conducted and further investigaiton is being conducted including a review of the LOTO and PTW system as well as the JHA process.
Details *(from final report)*	Operator advised that maintenance was to be conducted on the subsea MEG package. The intention was to change 1 of 7 filters on the package. An isolation was applied but after the maintenance it was identified that the incorrect filter had been isolated. The pump for the unit is remotely started and could have been started during maintenance resulting in injury due to working on a filter that had not been isolated. A safety standdown was conducted and further investigaiton is being conducted including a review of

the LOTO and PTW system as well as the JHA process.

** As Supplied by Duty Holder**

6.Brief Description:
- Planned scope was being executed on MEG Filter Panel (A08605). This required the staggered change out of the 7 MEG filters
- 3 filters had been successfully changed. Isolation for filter S-08658 was installed and verified
- Permit issued and verified in field (10/12 2200hrs)
- Planned work equipment was completed and filter S-08658 was deisolated (11/12 1200hrs)
- During equipment deisolation verification it was identified that filter S-08656 had been replaced by mistake. This work was executed without isolations in place to support work (12/12 0300hrs)
- System operates at 300barg when pump is running. Pump is manually operated and remotely started when required (intermittent service). Pump was not operating during filter change however no barrier in place to prevent start
- All work suspended 12/12 0600hrs. Workgroups briefed on event

7. Work or activity being undertaken at time of incident - Activity being undertaken: Planned filter change out on MEG Filter Panel (A08605)

8. What are the internal investigation arrangements? - Causal investigation

15. Action taken to make the work-site safe:
- Full safety stand down completed 0915hrs 12/12
- 5 key workscopes identified and PTW, controls, LOTO and JHA reviewed with work team and leadership team member
- 5 workfronts reopened post confirmation that scopes were verified as “safe to start”
- Remainder of personnel assigned to review planned work and readiness for “safe to start”

21. Immediate action taken/intended, if any, to prevent recurrence of incident.
Action - Full safety stand down planned for nightshift 1900hrs 12/12. Responsible party - Prelude OIM. Completion date - Completed
Action - Workfronts will be progressively reopened once it is verified that activities are “safe to start”. Responsible party - Prelude OIM. Completion date - Completed
Action - Return to work briefing pack to be updated to include event and interim controls. Responsible party - Prelude OIM. Completion date - Completed

22. What were the immediate causes of the incident? - This cause is still being investigated.

** as supplied by duty holder **

32. Has the investigation been completed? - Yes
Root cause analysis -
Root cause 1 - Incorrect identification of equipment: Tagging not compliant with labelling of facilities standard
Root cause 2 - Incorrect identification of equipment: Visibility: Scaffolding blocking lighting
Root cause 3 - Incorrect identification of equipment: Downstream isolation valves on a different deck
Root cause 4 - Incorrect identification of equipment: Equipment to be worked on not clearly identified
Full report -
Investigation Lead: [redacted] Production Coordinator
Investigation Type: Causal
Investigation: Attached [[see AXXXXXX]]

33. Actions to prevent recurrence of same or similar incident -
Action - Replace MEG distribution panel tags
Responsible party - Prod Coord
Completion date - Complete

Action - Perform tagging checks on other equipment vendor equipment packages on Prelude to ascertain other non-compliance with tagging standard. Prioritizing vendor packages in the turret
Responsible party - Prod Coord
Completion date - 31/03/2020

Action - Reconfigure existing scaffolding or lighting to improve visibility in area
Responsible party - Services Coord
Completion date - 31/03/2020

	Action - Implement equipment to be worked on tagging Responsible party - OIM Completion date - complete Action - Conduct stand-down for teams coming on the facility to update on the requirement to identify equipment to be worked upon and lessons from this incident Responsible party - OIM Completion date - Commenced. 31/03/2020 Action - Red-line PEFs for MEG package Responsible party - Prod Coord Completion date - 31/03/2020 Action - Standardise the isolation and prepare for maint scope for the MEG filter change scope Responsible party - OMC Completion date - 31/03/2020
Immediate cause/s	TBC
Root cause/s	
Root cause description	Root cause 1 - Incorrect identification of equipment: Tagging not compliant with labelling of facilities standard Root cause 2 - Incorrect identification of equipment: Visibility: Scaffolding blocking lighting Root cause 3 - Incorrect identification of equipment: Downstream isolation valves on a different deck Root cause 4 - Incorrect identification of equipment: Equipment to be worked on not clearly identified

Duty inspector recommendation	
Date	13/12/2019
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	13/12/2019
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	16/12/2019
Inspector	[redacted]
Risk gap	Substantial
Type of standard	Established
Initial strategy	IInvestigate within 45 days

Recommended follow up strategy	
Recommended strategy	Investigate ASAP
Supporting considerations	The filter was not isolated when changed. The system pressure is 300 bar and could have caused serious injury. Safe isolation of plant and machinery inspected during PI 1829 in Nov 2018, gaps identified and 4 recommendations remain open. Recommend investigate ASAP.

Non-major investigation decision	
Date	16/12/2019
RoN	[redacted]
RoN review result	Agree with recommendation
Strategy decision	Investigate ASAP
Supporting considerations	

Associated inspection	
Inspection ID	2134