

Notifiable incident

Incident ID [6494](#)

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	23/04/2020 11:30 AM (WST)
Notification date	23/04/2020 09:10 PM (WST)
NOPSEMA response date	23/04/2020 08:52 PM (WST)
Received by	[REDACTED]
Nearest state	WA
Initial category type <i>(based on notification)</i>	Dangerous Occurrence
Initial category <i>(based on notification)</i>	Damage to safety-critical equipment
3 Day report received	24/04/2020
Final report received	21/05/2020
All required data received	21/05/2020
Final category type <i>(based on final report)</i>	Dangerous Occurrence
Final category <i>(based on final report)</i>	Damage to safety-critical equipment
Brief description	OHS-DSCE-Preservation blank installed in RV outlet
Location	
Subtype/s	Other
Summary <i>(at notification)</i>	<p>Operator advised that during planned a maintenance inspection of the insulation space for cargo tank 5, a preservation plate (piece of wood) was found on the outlet of a RV to an atmospheric vent. This valve was to be removed for re-calibration.</p> <p>This was removed and the valve calibrated and returned to service. The blank had been in place since the construction phase.</p> <p>An investigation has been initiated to review the maintenance records for this RV and other RV's in the area were examined and no other preservation plates were found.</p>

Details <i>(from final report)</i>	<p>Operator advised that during planned a maintenance inspection of the insulation space for cargo tank 5, a preservation plate (piece of wood) was found on the outlet of a RV to an atmospheric vent. This valve was to be removed for re-calibration.</p> <p>This was removed and the valve calibrated and returned to service. The blank had been in place since the construction phase.</p> <p>An investigation has been initiated to review the maintenance records for this RV and other RV's in the area were examined and no other preservation plates were found.</p> <p>** As Supplied by Duty Holder**</p> <p>Brief description of incident: During routine maintenance, RV 480RV4086 (located within the insulation space of LNG Tank 5) was removed for a planned recertification test. During the activity a cardboard preservation piece was identified to be in place within the discharge pipe. It is believed that the piece has been in place since construction, as the RV was last removed in 2016 within the shipyard. The RV was in-situ tested in 2018, However this pilot test would not have identified the blockage. All RVs within the same service have been identified and assurance activities have been initiated to ensure fit for purpose.</p> <p>Work or activity being undertaken at time of incident - Activity being undertaken: Routine maintenance of RV.</p> <p>What are the internal investigation arrangements? Causal Reasoning Investigation.</p> <p>Action taken to make the work-site safe - Reviewing CMMS data to understand if other RVs in similar service and geographical area have previously been tested. Dependent on the outcome of this research, further inspections will be conducted.</p> <p>Immediate action taken/intended, if any, to prevent recurrence of incident - Reviewing CMMS data to understand if other RVs in similar service and geographical area have previously been tested. Dependent on the outcome of this research, further inspections will be conducted. Responsible - Prelude MMTL. Completion Date - 12/5/2020.</p> <p>What were the immediate causes of the incident? During construction a preservation blank (thin board) on the outlet to the vent piping was fitted</p>
Immediate cause/s	TBC
Root cause/s	
Root cause description	

Duty inspector recommendation	
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Date	24/04/2020
Duty inspector	[REDACTED]
Recommendation	Do not conduct Major Investigation
Reasoning	Does not meet MI threshold based on information received
Supporting considerations	

Major investigation decision	
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Date	24/04/2020
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	29/04/2020
Inspector	
Risk gap	Nominal
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	<p>The RV was located on the insulation space (IS) of an LPG tank. The insulation space is purged with nitrogen to maintain an inert dry atmosphere, however over pressure of the space will not result in an MAE (or significant injury to personnel). Worst case scenario is damage to membrane between the IS and the inter barrier space (IBS). The IBS is the main protection against loss of containment from the LPG tank (i.e. not the IS). Damage to the IBS could result in an MAE; however this is also protected by a RV which would have prevented over pressure, had there been leakage from the IS to the IBS. Shell have checked other RVs in similar service with a boroscope and have found no further instances of obstructions in the discharge of the RV. The obstruction of the RV discharge is assessed to be due to preservation materials not removed during installation in the shipyard in South Korea.</p> <p>It should be noted that the obstruction was incorrectly recorded to be a piece of wood, but has been confirmed by Shell to have been cardboard instead.</p>

Non-major investigation decision	
Date	30/04/2020
RoN	
RoN review result	Agree with recommendation
Strategy decision	Inclusion in annual report stats / data analysis
Supporting considerations	

Associated inspection	
Inspection ID	