

Notifiable incident

Incident ID [6494](#)

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

| Incident details | |
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| 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> |

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| 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 | |

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| 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 | |

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| 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 | |
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| 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 | |
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| 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 | |