

# Notifiable incident

**Incident ID** [5551](#)

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

Incident details	
<b>Division</b>	Occupational Health and Safety
<b>Notification type</b>	Incident
<b>Incident date</b>	28/08/2018 11:30 AM (WST)
<b>Notification date</b>	28/08/2018 04:05 PM (WST)
<b>NOPSEMA response date</b>	28/08/2018 04:37 PM (WST)
<b>Received by</b>	[REDACTED]
<b>Nearest state</b>	WA
<b>Initial category type</b> <i>(based on notification)</i>	Dangerous Occurrence
<b>Initial category</b> <i>(based on notification)</i>	Unplanned event - implement emergency response plan
<b>3 Day report received</b>	01/09/2018
<b>Final report received</b>	27/09/2018
<b>All required data received</b>	27/09/2018
<b>Final category type</b> <i>(based on final report)</i>	Dangerous Occurrence
<b>Final category</b> <i>(based on final report)</i>	Unplanned event - implement emergency response plan
<b>Brief description</b>	OHS-UPE-GA and Muster due to power outage
<b>Location</b>	Deck
<b>Subtype/s</b>	Alarm, Muster
<b>Summary</b> <i>(at notification)</i>	Operator advised that whilst preparing for a product transfer as part of commissioning activities a boiler which was powering a generator tripped due to lack of fuel . The loss of steam pressure tripped the generator resulting in a facility blackout. A GA and muster was initiated and power was eventually restored. The ERT was not deployed.
<b>Details</b> <i>(from final report)</i>	<p>Operator advised that whilst preparing for a product transfer as part of commissioning activities a boiler which was powering a generator tripped due to lack of fuel . The loss of steam pressure tripped the generator resulting in a facility blackout. A GA and muster was initiated and power was eventually restored. The ERT was not deployed.</p> <p>A General alarm was initiated on 28 August 2018, during preparation for LPG transfer. As per the LPG tank transfer commissioning procedure, four valves were to be opened to allow LPG tank transfer commissioning test, which involved the forcing of loading arms ready signal. The forcing of the loading arms ready signal requires the Operational Override Switch (OOS) on the Ship Emergency Shut Down (ESD) signal to be put on as per design control logic. A misunderstanding of the complex logic led to the override being applied incorrectly leading to a Ship ESD which, in turn, tripped the LNG tank stripping pump, which was running to pump LNG to the Vaporiser, feeding fuel gas to the online boiler. This caused a loss of vaporised gas tripping the online boiler and resulted in a loss of power distribution to the facility, and initiated the general alarm. The facility and Accommodation Support Vessel (ASV) initiated a full muster.</p> <p>There was no risk to people or the environment during the incident. The system tripped to safe state as per control logic.</p>

<b>Immediate cause/s</b>	During the action of undertaking LPG transfer and application of an approved override, the interlink in control logic between the override and permissive to keep the loading arm in ready signal was not recognised; the activation resulted in a trip of the vaporiser leading to loss of fuel gas to the only operating boiler. By design, the boiler should have switched from fuel gas to diesel, but this failed to happen in the required time.
<b>Root cause/s</b>	HPD - TRAINING - Understanding NI - instruction NI
<b>Root cause description</b>	A misunderstanding of the complex logic led to the override being applied incorrectly.

#### Duty inspector recommendation

<b>Date</b>	29/08/2018
<b>Duty inspector</b>	[REDACTED]
<b>Recommendation</b>	Do not conduct Major Investigation
<b>Reasoning</b>	Does not meet MI threshold based on information received
<b>Supporting considerations</b>	

#### Major investigation decision

<b>Date</b>	29/08/2018
<b>Decision</b>	Do not conduct Major Investigation
<b>Reasoning</b>	Does not meet MI threshold based on information received
<b>Supporting considerations</b>	

#### Non-major investigation review and recommendation

<b>Date</b>	29/08/2018
<b>Inspector</b>	[REDACTED]
<b>Risk gap</b>	None
<b>Type of standard</b>	Established
<b>Initial strategy</b>	Inclusion in annual stats/data analysis

#### Recommended follow up strategy

<b>Recommended strategy</b>	Inclusion in annual report stats / data analysis
<b>Supporting considerations</b>	Trip operated as per design - no risk gap.

#### Non-major investigation decision

<b>Date</b>	29/08/2018
<b>RoN</b>	[REDACTED]
<b>RoN review result</b>	Agree with recommendation
<b>Strategy decision</b>	Inclusion in annual report stats / data analysis
<b>Supporting considerations</b>	

#### Associated inspection

<b>Inspection ID</b>	
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