

Notifiable incident

Notification ID	NTF11711
Duty holder	Woodside Energy Global Pty Ltd
Facility/Activity	Pyrenees
Nearest state	WA
Incident	OHS-DSCE-Corrosion on boiler fuel gas supply spool

Basic information provided at time of notification	
Notification type	Incident
Incident date	18/08/2022 11:00 AM (AWST)
Notification date	19/08/2022 02:02 PM (AWST)
NOPSEMA response date	19/08/2022 02:14 PM (AWST)
Received by	[REDACTED]

Summary of information provided	
Brief descriptive title	OHS-DSCE-Corrosion on boiler fuel gas supply spool
Incident location	
Subtype/s	Other
Summary <i>(provided at notification)</i>	Operator reported a DO. During routine piping inspection two spots on the #1 boiler fuel gas supply line were found to be below the minimum allowable wall thickness hence failing to meet the PS. Boiler was not in use at the time and has since been isolated. Parts being sourced for replacement in the next shutdown. 3 and 30 day report to follow.

Request permission to disturb the site	
Permission given	Not Applicable
Permission given by	
Permission given on	

Initial spill and release amounts	
Gas (kg)	
Liquid (L)	
Release type	
More information	

Details of person providing information to NOPSEMA	
Full name	[REDACTED]
Job title	[REDACTED]

Initial notification category	
Initial category type <i>(based on notification)</i>	Dangerous Occurrence
Initial category <i>(based on notification)</i>	OHS - damage to safety-critical equipment

Running sheet	
<i>There are no running sheet entries for this notification</i>	

Decision	
Escalate to level 1	Yes
Inspector	██████████
Escalated on	22/08/2022 07:12

Final notification category	
Final category type <i>(based on final report)</i>	Dangerous Occurrence
Final category <i>(based on final report)</i>	OHS - damage to safety-critical equipment

Immediate causes	
Details	External corrosion and wall loss.

Initial report	
Due date	21/08/2022
Received date	21/08/2022
Reviewed date	22/09/2022
Reviewed by	██████████
Additional details provided by duty holder	<p>Brief description of incident Boiler Fuel Gas Supply Spools found below minimal allowable wall thickness.</p> <p>Work or activity being undertaken at time of incident Piping inspection and radiography thickness testing activities.</p> <p>What are the internal investigation arrangements? Failure analysis of affected spools.</p> <p>Action taken to make the work-site safe: Action taken The defect spools have been isolated until such time they can be replaced.</p> <p>Was an emergency response initiated? No Was anyone killed or injured? No Will the equipment be shut down? No. Equipment was offline at the time.</p> <p>Immediate action taken/intended, if any, to prevent recurrence of incident. Action - Isolate affected spools - Responsible party - ██████ - Completion date - 18/08/2022</p> <p>Action - 2 x Notifications raised to replace spools: 434076815 – location 1 434076820 – location 3 - Responsible party - ██████ - Completion date - 19/08/2022</p> <p>Action - Spool replacement - Responsible party - ██████ - Completion date - 30/09/2022</p>

Final report	
Due date	17/09/2022
Received date	30/09/2022
Reviewed date	19/09/2022
Reviewed by	██████████

Additional details provided by duty holder	<p>Full Report</p> <p>Corrosion: 2 x locations were identified with below MAWT within the starboard boiler fuel gas skid. These were both localised corrosion on small bore (~20mm) drain spools with a nominal wall thickness of ~2.8mm. The adjacent flanges on the pipe spools were found with Stainless Steel bolts and nuts which has been identified as a trigger for Galvanic Corrosion of the carbon steel spools as a result of the dissimilar metals.</p> <p>Inspection and identification: Fuel Gas Valve Skids were supplied separately to the Hull Conversion as part of the Boiler Package. Fuel Gas Valve Skid was not assigned a specific maintenance task, other than instrument calibration, during the initial maintenance build.</p> <p>Inlet and outlet pipework attached to the skid is in the inspection database, the pipework within the skid boundary limit is not included in the inspection database and as a result there was no inspection routine established for the Boiler Fuel Gas skid on the main deck.</p> <p>Actions to prevent recurrence of same or similar incident: Action - Replace corroded FG spools. #434076815 Spool 1#434076820 Spool 3 - Responsible party - [REDACTED] . - Completion date - 31st December 2022</p> <p>Action - General Visual Inspection of main deck and process to identify actual or potential galvanic corrosion. - Responsible party - [REDACTED] - Completion date - 30th November 2022</p> <p>Action -P&ID Review to identify and include lines/equipment missing from the Inspection Database - Responsible party - [REDACTED] - Completion date - 30th March 2023</p> <p>Action - Implement Main Deck GVI in the facility Area Inspection Program. - Responsible party - [REDACTED] - Completion date - 30th December 2022</p>
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Final spill and release amounts	
Gas (kg)	0.00
Liquid (L)	0.00
Release type	
More information	

Root causes	
Code	
Description	<p>Has the investigation been completed? No</p> <p>Root cause analysis: Root cause 1 Boiler Fuel Gas Spools found below MAWT as a result of localised external corrosion of the small bore carbon steel pipe spools. Corrosion attributed largely to Galvanic Corrosion as a result of SS bolts and nuts installed in the adjacent flanges. Root cause 2 There was no specific piping inspection routine established for the Boiler Fuel Gas skid on the main deck</p>

All data received	
Date	04/10/2022

