

Direction – section 574

Offshore Petroleum and Greenhouse Gas Storage Act 2006

Direction number: 780

To: Shell Australia Pty Ltd

Issue of Direction/s - Section 574 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)*

Attached is a written notice of direction/s made under s 574 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)*.

Please provide written acknowledgement of receipt of this direction.

Please refer to the information regarding s 575 in the attached *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)* explanatory statement for notification of direction requirements.

A person commits an offence if:

- (a) the person is subject to a direction under s 574; and
- (b) the person engages in conduct; and
- (c) the person's conduct breaches the direction.¹

Please provide this office with documented evidence of your compliance with the notice of direction/s.

If you have any questions relating to the content of the instrument, please contact Derrick O'Keeffe, Head of Division – Safety and Integrity.

Yours sincerely

Signed:



Derrick O'Keeffe

Head of Division – Safety and Integrity

Dated: 22 January 2020

NOTES: (Please see explanatory statement)

¹ Section 576 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)*

Direction number NOPSEMA 780

I, Derrick O’Keeffe, Head of Division – Safety and Integrity of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), make this instrument under section 574 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) pursuant to a CEO Instrument of Delegation dated 18 August 2018.



Derrick O’Keeffe

Head of Division – Safety and Integrity

National Offshore Petroleum Safety and Environmental Management Authority

Dated: 22 January 2020

DIRECTION

1. Commencement

This direction takes effect on the date of the signature.

2. Application

This direction applies to Shell Australia Pty Ltd, ACN 009 663 576, the registered holder of petroleum production licence WA-44-L (the titleholder).

AND

3. Extended Application

Pursuant to subsection 574(3)(a) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, this instrument also applies to a specified class of persons, being Shell Australia Pty Ltd, ACN 009 663 576, who is also the registered operator of the Prelude FLNG facility which is conducting activities under production licence WA-44-L.

4. Direction

- (1) The titleholder is given the directions contained in Schedule 1.
- (2) Each direction in Schedule 1 is a separate direction.

Schedule 1 - Directions**Direction 1**

Until Shell Australia Pty Ltd (Shell) has completed the remediation actions in Direction 2(a), 2(b), 2(c), 2(d) and 2(e), NOPSEMA directs Shell not to conduct intrusive activities into plant and equipment where the loss of containment as a result of that intrusive activity could result in risk to the health and safety of persons at or near the facility.

NOPSEMA excludes the following intrusive activities from this Direction:

- a) those that are required to be performed to reduce risk to health and safety at the facility; and
- b) where that risk reduction is greater than the risk of the intrusive activity itself.

Direction 2

As a result of the operations and activities described under 'Background' in the attached Explanatory Statement, Shell is directed to take the following action within 60 days:

- a) Conduct a detailed review of those aspects of the safety management system (SMS) that relate to the safe isolation of plant and equipment, to identify the gaps with industry good practice (e.g. such as described in HSE UK Guidance '*Safe Isolation of Plant and Equipment*', HSG253 (second edition, published 2006).
- b) Revise the SMS (e.g. documents, procedures, work instructions, policies) to address the gaps in the SMS identified as part of a).
- c) Demonstrate that those responsible for designing, implementing, reviewing and authorising isolation schemes (e.g. isolation owner, verifier, authoriser, manager or supervisor) are competent in the application of the SMS changes made as part of parts a) and b) of this Direction.
- d) Demonstrate that those responsible for conducting the intrusive activities (e.g. Work Party, Permit Holder) are competent to recognise those elements of an isolation scheme that is necessary for them to reasonably assess that it is safe for them to conduct the intrusive activities.
- e) Once Shell has implemented actions a), b), c) and d), Shell senior management are required to attend a meeting with NOPSEMA to present the evidence for the above actions and demonstrate to NOPSEMA that Shell is ready to conduct the intrusive activities prohibited in Direction 1, to the standards described in the revised SMS. If that demonstration is to the satisfaction of NOPSEMA, the restrictions applied under Direction 1 will no longer apply for those whom Shell has demonstrated to be competent under items c) and d).
- f) To enable closure of this direction NOPSEMA will sample (via inspection) documentary evidence spanning a minimum period of 90 days to demonstrate that Shell has: implemented the actions described under a), b), c) and d), and that Shell's SMS, in relation to the safe isolation of plant and equipment, is in alignment with good industry practice. Documentary evidence may include, for example, Permits to Work (PTW), Isolation and Confirmation Certificates (ICC), Isolation Plans, reports of incidents and their investigations. Failure to make the demonstration may result in the re-instatement of Direction 1.

Explanatory Statement

Offshore Petroleum and Greenhouse Gas Storage Act 2006

Background

In November 2018, NOPSEMA conducted an inspection (1829) that included the topic “Safe Isolation of Plant and Equipment”. The written aspects of the SMS were broadly consistent with good industry practice [Ref. 1]; however the report made ten recommendations to improve minor gaps. Since September 2019 there have been three notifications of dangerous occurrences at the Prelude FLNG Facility that NOPSEMA inspectors attributed to deficiencies in the aspects of the SMS that relate to the safe isolation of plant and equipment. The first of these occurrences was:

- 18 September 2019: A loss of hydrocarbon containment while preparing the Marine Loading Arm #1 for maintenance. The loss of containment led to the activation of two gas detectors and an Emergency Shutdown (ESD) 2 event. NOPSEMA inspector report 2080, issued on 9 October 2019, describes the details of this event.

Following this event NOPSEMA conducted an inspection (2080) to establish whether there was an immediate threat to the health and safety of persons at the facility. The inspectors concluded that Shell had taken appropriate action to address the immediate threat; however the inspectors made the observation that there had been degradation of the SMS with respect to the safe isolation of plant and equipment, from the inspection (1829) conducted in 2018. The NOPSEMA inspectors made a recommendation to revise the procedure for the isolation of plant and equipment ‘so that it is consistent with the principals described in the HSE UK guidance “The safe isolation of plant and equipment” HSG253 [Ref. 1], or equivalent alternative.’

The other two notifications of dangerous occurrences at the Prelude FLNG Facility were as follows:

- 10 December 2019: A work party broke containment into a piece of equipment that contained high pressure liquid and that had not been correctly isolated. Shell attributed the failure to the misidentification of process equipment.
- 9 January 2020: A loss of hydrocarbon containment prior to breaking process containment to reinstate a relief valve. The release set off gas detectors and led to a General Process Alarm (GPA) and muster at the facility.

In response to the event on 10 December 2019, NOPSEMA began another inspection (2134) to establish whether there was an immediate threat to the health and safety of persons at the facility. While concluding the investigation, the dangerous occurrence on 9 January 2020 occurred. For both events, the inspectors attributed the dangerous occurrences to the deficiencies in the SMS for the safe isolation of plant and equipment, including inadequate descriptions and training for:

- how to control the venting of flammable hydrocarbon where there is a risk of ignition; and
- how to identify or tag the equipment to be worked on.

However, the inspectors have concerns with multiple aspects of the SMS which may have contributed to these and potentially future, events. The events of late 2019 and early 2020, and the findings from the associated investigations, led the NOPSEMA inspectors to the conclusion that risks associated with conducting intrusive activities at the Prelude FLNG facility, were not being reduced to as low as reasonably practicable, and that there was a significant risk to the health and safety of persons at the facility.

References:

1. Health and Safety Executive of the UK guidance “The Safe Isolation of Plant and Equipment” (HSG253, second edition, published 2006).

Legislation

Part 6.9 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) (the Act) provides that NOPSEMA has functions in relation to the occupational health and safety of persons engaged in offshore petroleum operations or offshore greenhouse gas storage operations; the structural integrity of facilities, wells and well-related equipment; and environmental management.

Under subsection 574(2) of the Act, NOPSEMA may issue a direction about any matter in relation to which regulations may be made.

Section 666(2) of the Act gives the CEO of NOPSEMA the power to issue a direction under section 574 of the Act. The power may be delegated by the CEO under section 675 of the Act.

Under sub section 576(1) of the Act, if a person is subject to a direction under section 574 and the person engages in conduct that breaches that direction, the person commits an offence:

- **Fault-based offence** – 5 years imprisonment or 2,000 penalty units, or both (10,000 penalty units for a body corporate).
- **Strict liability offence** – 100 penalty units (500 penalty units for a body corporate).
- **Civil penalty provision** – 525 penalty units (2,625 penalty units for a body corporate).
- **Continuing offences** – a person who commits a fault-based or strict liability offence commits a separate offence in respect for each day during which the offence continues. The maximum penalty for each day that the offence continues is 10% of the maximum penalty that can be imposed in respect to that offence.
- **Continuing contraventions of civil penalty provisions** – a person who contravenes the civil penalty provision commits a separate contravention in respect for each day during which the contravention continues. The maximum civil penalty for each day that the contravention continues is 10% of the maximum civil penalty that can be imposed in respect to that contravention.

Note: the value of one penalty unit is \$210 pursuant to section 4AA(1) of the *Crimes Act 1914* (current as of 6 September 2017).

Notification of a direction that has an extended application

Pursuant to section 575:

(1) If a direction under section 574 applies to:

(a) a registered holder; and

(b) a person referred to in paragraph 574(3)(a);

the registered holder must cause a copy of the notice by which the direction was given to be:

(c) given to that other person; or

(d) displayed at a prominent position at a place in the offshore area frequented by that other person.