

OHS Improvement Notice

Offshore Petroleum and Greenhouse Gas Storage Act 2006, Schedule 3 clauses 78, 78A and 78B

Notice No:	1967
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Date: 4/02/2025

To: Shell Australia Pty Ltd

In conducting an OHS inspection in relation to the Prelude FLNG facility I, and an Amount of the Prelude FLNG facility I, and an Amount of the Inspector appointed under section 602 of the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (the Act), am satisfied on reasonable grounds that Shell Australia Pty Ltd (Shell) has contravened a provision of a listed OHS law and is likely to contravene that provision again

AND

As a result, there is, or may be, a risk to the health or safety of a person at the Prelude FLNG facility.

The relevant listed OHS law that I am satisfied has been contravened and is likely to be contravened again is Clause 9 (1)(a) of Schedule 3 of the Act that requires the operator of a facility to take all reasonably practicable steps to ensure that the facility is safe and without risk to the health of any person at or near the facility.

The reasons for my opinion are:

Odour issues have been reported to Shell management as occurring for several years. Personnel on the facility have presented with symptoms of respiratory and eye irritation, typical of (but not exclusive to) hydrogen sulphide and benzene exposure. The operator reported that although other sources are present, the probable source of the hazardous gases (hydrogen sulphide and benzene) detected in the process area is from the acid gas vent, which is potentially not being safely vented as described in the Safety Case.

During NOPSEMA's inspection, the inspectors found conditions exist where the hazardous gases may not be adequately dispersed during approximately 58 days of the year (on average) where climatic conditions result in low wind velocity or still conditions. These conditions can potentially lead to exposure of the workforce to the inadequately dispersed hazardous gases.

Although results of personal occupational monitoring indicate that personnel have not been exposed beyond allowable limits, during NOPSEMA's inspection it was confirmed that the historical monitoring did not consider high risk conditions such as low wind velocity resulting in inadequate dispersion. The online monitoring systems at living quarters inlets had not been functioning satisfactorily prior to October 2024, although it is noted they were functioning at the time of the inspection. The operator provided results from benzene spot measurements taken during September 2024, in reaction to workforce complaints. The levels detected had the potential to expose the workforce in excess of occupational limits, which could result in adverse health effects.

The inspectors concluded the hazardous gases are not adequately controlled at the facility.



I am satisfied that Shell is likely to contravene Clause 9(1)(a) of Schedule 3 of the Act again because:

Shell has been receiving reports of odour issues for an extended period and personnel have presented with health effects without the operator resolving the risk of exposure. During the inspection, Shell could not demonstrate that the risks associated with vented hazardous gases have been effectively assessed, controls to limit the hazardous gases at the source have been effectively implemented, or the risk of exposure has been effectively mitigated (e.g. there is continued reliance on personnel olfactory senses to detect benzene).

As a result of this contravention, I am satisfied that there is, or may be, the following risk to the health or safety of a person at the Prelude FLNG facility:

There is a risk of significant adverse health effects if the workforce is exposed to hazardous gases such as benzene or hydrogen sulphide during operations at the Prelude FLNG facility. Non-permanent health effects include respiratory and eye irritation. There is also a risk of permanent or irreversible health damage due to benzene, a recognised carcinogen.

I am satisfied on reasonable grounds that the following action(s) must be taken by the responsible person to reduce or prevent the risk:

- 1. Ensure that all circumstances and sources (such as climatic conditions which result in low/still wind velocity) where risk of potential exposure to hazardous gases (benzene and hydrogen sulphide) to the workforce is likely to occur are assessed comprehensively.
- 2. Develop and implement a system(s) to:
 - a. detect, monitor and record, and
 - b. prevent and control

the risk and exposure of the workforce to hazardous gases. Shell should consult with members of the workforce throughout this process.

- 3. Assess the effectiveness of the implemented system.
- 4. Establish interim controls to limit exposure to hazardous gases (benzene and hydrogen sulphide) within 45 days.

You are required to take action to reduce or prevent the risk within 180 days from the date of this notice, except action item 4 which is to be undertaken within 45 days.

NOPSEMA INSPECTOR wA926590

04 February 2025



When the required action(s) has been completed, the Responsible Person is to submit this part of the notice to the following person via:

Post: Level 10, 58 Mounts Bay Road

Perth WA 6000

Contact number:

Email: submissions@nopsema.gov.au

Name: NOPSEMA INSPECTOR

+61 8 6188 8700

By signing below, I confirm on behalf of Shell Australia Pty Ltd (Shell) that the specified action described in Improvement Notice No. 1967 has been undertaken within the period specified.

Signed: Date:

(to be signed by responsible person only when the notice has been complied with)



Notes

- Under clause 78A of Schedule 3 to the Act, a responsible person who fails to ensure that this notice is complied with, to the extent that it relates to any matter over which the responsible person has control:
 - a. commits an offence and may be liable to a penalty of 300 penalty units for the offence; or
 - b. contravenes a civil penalty provision and may be liable to a civil penalty of 400 penalty units.
- 2. For every day proceeding the initial offence or contravention the notice is not complied with, the responsible person commits an offence or contravention in respect of each day (including a day of a conviction under this clause or any later day) during which the offence or contravention continues.
- 3. A copy of this notice must be displayed in a prominent place at or near each workplace which work affected by the notice is being performed. It is an offence to tamper with or remove it until the notice has ceased to have effect.
- 4. The recipient of this notice must ensure that all relevant requirements for giving copies of the notice to certain persons and representatives are complied with in accordance with cl 78b to Schedule 3 to the Act.
- 5. Under clause 80A of Schedule 3 to the Act, any of the following persons may request the reviewing authority in writing to review the NOPSEMA inspector's decision:
 - the operator of the facility;
 - the titleholder, if the notice is issued to a titleholder;
 - any person to whom an improvement notice has been issued;
 - an employer, if affected by the decision;
 - a relevant health and safety representative; a relevant workforce representative, if requested by a member of the workforce affected by the decision;
 - a person who owns any workplace plant, substance or thing to which the NOPSEMA inspector's decision relates.