

OHS IMPROVEMENT NOTICE

To: Woodside Energy Ltd

In conducting an OHS inspection in relation to the Vincent FPSO facility, I, [REDACTED], a NOPSEMA inspector appointed under section 602 of the Act, am satisfied on reasonable grounds that the person named above as the responsible person is contravening, or has contravened clause 9(2)(e) of Schedule 3 to the Act at the Vincent facility.

The reasons for my opinion are:

During an inspection of the Vincent FPSO facility, I observed that changes to the facility layout had resulted in a methanol decanting and laydown area being relocated on top of Module M10.

Methanol is contained in Intermediate Bulk Containers (IBCs) and is loaded on to the facility from Offshore Support Vessel (OSV's), by use of the facility cranes.

There is capability to store up to 8 IBCs in the laydown area, 4 of which are covered by line-of-sight flame detectors. Each IBC can contain 3.8m³ of highly flammable methanol.

I drew the operator's attention to Section 6.4 of the Vincent Safety Case "Process Chemicals" which states that the chemical that presents the highest risk to personnel on board of the FPSO is methanol. Section 4.4 "Topsides loss of containment" lists performance standards – PS F16 Foam Systems PS, F14 Fire Water Systems and PS F15 Manual firefighting equipment as mitigations against ignited topsides release pool fires.

In response, Woodside stated that no more than 2 of the slots will be used for Methanol storage at any time. Woodside also referred to section 16.2.1 of the Vincent FPSO Fire Fighting Philosophy (WV-R-80-X-RP-00001-022 Rev A1) which states that once a fire is confirmed inside the topside module, the firewater system, the emergency shutdown and blowdown will be activated thus reducing the potential for escalation.

However the Vincent FPSO Fire Fighting Philosophy requires a dedicated deluge system in modules M10, M11, M20, M30, M70 and M71 due to the potential risk of pool fire.

The FPSO is equipped with a firefighting system designed to account for the presence of methanol, through the use of Alcohol Resistant - Aqueous Film Forming Foam (AR-AFFF), however I observed on the facility that there was no active fire protection installed in the new methanol laydown area, neither is there AR-AFFF coverage from fire monitors in the direct vicinity.

I am therefore satisfied that the operator of a facility has failed to take all reasonably practicable steps to implement equipment for the control of and response to emergencies at the facility.

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

Insufficient capacity to fight fires on or in the near vicinity of the M10 methanol laydown area could lead to a major accident event (MAE). The activities performed in the area include lifting operations and decanting; these activities present the most risk of methanol release and would require personnel to be in close proximity of the potential fire source.

Methanol fires are very hard to detect as the flames are colourless and no smoke is generated, making it

particularly difficult to extinguish by using hand-held extinguishers. The use of water on a methanol fire will further reduce visibility but will not cool the surroundings or extinguish the fire. Using hand-held extinguishers would force personnel to fight fires at close range, exposing personnel to the risk of injury or death.

You are required to take action within **90** days of the date of this notice to prevent or reduce the risk.

The following action must be taken by the responsible person within the period specified above:

1. Ensure that the lay down area on top of Module M10 is protected by AR-AFFF deluge, as described in the Vincent FPSO Fire Fighting Philosophy document (WV-R-80-X-RP-00001-022 Rev A1); or
2. Re-arrange positions and supply of foam dispersing fire hydrants in order to cover the M10 laydown area from a large enough distance, to prevent endangerment of the health or lives of firefighting personnel; or
3. Implement such other controls as required to reduce risk to a level that is as low as reasonably practicable.


Signed:**NOPSEMA Inspector****Dated: 12 July 2019**

NOTES: (Please see back of notice)

The following section is to be completed if serving the notice to the responsible person by giving it to the operator's representative or titleholder's representative at the facility, or the identified responsible person onshore.

This notice was delivered to: _____
(insert name)

in the office or position of _____
(insert office or position)

at: _____ am/pm on _____
(insert time) (insert date)

When the required improvement has been completed, return this part of the notice to the following person at the address below:

Name: [REDACTED]

Position: Inspector

Address: Send in electronic format via email to:
submissions@nopsema.gov.au

Telephone number: +61 8 6188 8700

Specify the action that has been taken to comply with this notice in the space below.

Improvement Notice No. **754** has been complied with by:

Signed: _____ Date: _____

NOTES:

1. Under clause 78 of Schedule 3 to the Act, a person who fails to ensure that this notice is complied with, to the extent that it relates to a matter over which the person has control, may be liable to a penalty of 300 penalty units or a civil penalty of 400 units.
2. This notice must be displayed in a prominent place at or near each workplace at which work affected by the notice is being performed and, must not be tampered with or removed before the notice has ceased to have effect.
3. If the notice is not issued by being given to the operator's representative at the facility, the responsible person (unless the responsible person is the titleholder) must cause a copy of the notice to be given to the operator's representative.
4. If the responsible person is the operator or an employer (other than the operator) of members of the workforce, the operator's representative at the facility must give a copy of the notice to each health and safety representative for a designated work group having group members performing work that is affected by the notice.
5. If the responsible person is the titleholder, as soon as practicable after issuing the notice, the NOPSEMA inspector will take reasonable steps to give a copy of the notice to the operator and, if the NOPSEMA inspector is at the facility when the notice issued, the operator's representative at the facility.
6. If the responsible person is the titleholder, but the inspector is not at the facility when the notice is issued, the operator must give a copy of the notice to the operator's representative at the facility.
7. As soon as practicable after issuing the notice, the NOPSEMA inspector will take reasonable steps to give a copy of the notice to, where applicable:
 - (a) the employer of an employee who is a member of the workforce if the notice is issued to the employee, and in connection with work performed by the employee, and
 - (b) the owner of any workplace plant, substance or thing that the notice relates to, unless the owner is the responsible person or an employer referred to in (a), and
 - (c) if the responsible person is the owner of any workplace, plant, substance or thing because of which the contravention has occurred, or is likely to occur: the operator of the facility, and if the employer of employees who work in that workplace or who use that plant, substance or thing is a person other than the operator—that employer; and
 - (d) the titleholder, if the responsible person is the operator, and the contravention relates, or is likely to relate to, the titleholders' well related obligations.
8. Under item 8 of subclause 80A(1) of Schedule 3 to the Act, any of the following persons may in writing request the reviewing authority to review the NOPSEMA inspector's decision:
 - the operator of the facility
 - the titleholder, if the notice is issued to a titleholder;
 - any other person to whom the 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.
9. An improvement notice ceases to have effect when the responsible person takes the action specified in the notice.