

OHS Improvement Notice

Offshore Petroleum and Greenhouse Gas Storage Act 2006

Notice Number: 576

OHS IMPROVEMENT NOTICE

To: Apache Energy Limited

In conducting an OHS inspection in relation to the Balnaves facility, I, and 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 and is likely to contravene again:

(a) clause 9(2)(C) of Schedule 3 to the Act

at: Balnaves Facility

The reasons for my opinion are:

That on 3 separate occasions, hydrocarbon gas releases have occurred from flanges and despite implementing a Flange Management Plan at the facility after the second release, a third gas release occurred after the Flange Management Plan was concluded. The third gas release incident occurred from a flange that was tested as part of the Flange Management Plan.

The assessment of the root causes and the remedial actions taken to prevent a recurrence of the same or similar incident have demonstrably proved to be ineffective, and the operator has therefore failed to take all reasonably practicable steps to ensure that any plant, equipment, materials and substances at the facility are safe and without risk to health.

The sequence of gas release events are as follows:-

- A gas release incident occurred at the Test Separator flange on 16/11/2014. This incident was
 reported to NOPSEMA as a dangerous occurrence. The facility was shut down as a result of this
 incident to allow 100% visual checking and torque testing of all 300 lb flange systems in the HP
 separator system down to the MP Separator system. Gasket issues were identified and fixed or
 repaired prior to re-introduction of hydrocarbon gases. 1 Flange anomaly was identified and
 isolated.
- 2. A second gas release incident occurred at a flange downstream of the dehydration chiller in the dehydration system on 7/12/2014. This incident was also reported to NOPSEMA as a dangerous occurrence. As a result of this incident a Flange Management Plan was instigated on the facility with the initial scope to perform 10% checks of the GTC A, GTC B and Dehydration systems involving external visual checks of the flange/gasket (outer diameter), torque checks and retorqueing where required. An unacceptable 'fail' rate in the GTC A system resulted in the scope being increased in this system to 100% visual inspection and torqueing of flange joints.
- 100% visual inspections and torque checks were performed at the dehydration system and other systems containing hydrocarbon gases. Numerous incorrect gaskets were found in the dehydration system and replaced.
- 4. A third gas release incident occurred at a flange on the Dehydrator vessel B on 26/1/2015. This incident was reported to NOPSEMA as a dangerous occurrence. This flange was previously checked as part of the Flange Management Plan which concluded on 15/1/2015.



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:

Potential for the loss of containment of Hydrocarbon Gas from a flange, which could ignite and cause serious injury or fatality.

You are required to take action within 60 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:

A. Conduct a thorough and systematic investigation of the hydrocarbon process systems' flanged connections including an 'as built' status review and such dis-assembly and inspection as required, and implement such measures as necessary to assure the integrity of all hydrocarbon process plant flange joints; and

As soon as reasonably practicable, assess the risk to the health and safety of persons at the facility of continuing production operations before the action specified above has been completed, and implement additional mitigation control measures as determined necessary by the risk assessment; or

B. Implement such other controls as required to reduce risk to a level that is as low as reasonably practicable.

Signed:

NOPSEMA inspector Dated: 16/02/2015

NOTES: (Please see back of notice)



| When the required in at the address below | nprovement has been compl : | eted, return this | part of the noti | ce to the fo | llowing person |
|---|---|-------------------|------------------|--------------|----------------|
| Name: | | | | | |
| Position: | NOPSEMA Inspector | | | | |
| Address: | Send in electronic format via email to: submissions@nopsema.gov.au | | | | |
| Telephone number: | +61 8 6188 8700 | | | | |
| | | | | | |
| | nt has been taken to comply w No. 576 has been complied w | | n the space belo | ow. | |
| improvement Notice | no. 370 has been complica v | vitti by. | | | |
| | | | | | |
| | | | × | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Signed: | | | Date: | 2 | |



NOTES:

- 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.
- 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.