

ENVIRONMENTAL PROHIBITION NOTICE

To: Origin Energy Resources Limited

In conducting a petroleum environmental inspection in relation to the premises used for the Crowes Foot Seismic Survey, I [REDACTED] a NOPSEMA inspector appointed under section 602 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, am satisfied on reasonable grounds that:

- an activity is occurring at the premises that involves an immediate and significant threat to the environment; or
- an activity may occur at the premises that, if it occurred, would involve an immediate and significant threat to the environment; or
- the operation or use of the premises involves an immediate and significant threat to the environment; or
- the operation or use of the premises, if it occurred, would involve an immediate and significant threat to the environment.

I am satisfied that it is reasonably necessary to issue a prohibition notice to Origin Energy Resources Limited in order to remove the threat.

The grounds that have satisfied me that an activity may occur at the premises that, if it occurred, would involve an immediate and significant threat to the environment are:

1. The Crowes Foot Seismic Survey will generate estimated sound exposure levels at depths of 35 m and 60 m of approximately 208 dB re 1 $\mu\text{Pa}^2\cdot\text{s}$ and 204 dB re 1 $\mu\text{Pa}^2\cdot\text{s}$ respectively, according to the information contained in the Crowes Foot Seismic Survey Environment Plan, Revision C, and the associated response to requests for further information dated 14 October 2016 and 2 November 2015, accepted by NOPSEMA on 4 November 2015 (the environment plan in force).
2. Sublethal effects were identified in adult rock lobsters at sound exposure levels of 186–190 dB re 1 $\mu\text{Pa}^2\cdot\text{s}$ in a scientific study (Fisheries Research & Development Corporation, Final Report 2012-008-DLD *Assessing the impact of marine seismic surveys on southeast Australian scallop and lobster fisheries*, October 2016 (FRDC 2016)), published since the environment plan was accepted.
3. The seismic sound exposure was found to result in alteration to several important aspects of adult lobster biology, including depression of the number of haemocytes available for immune response, impairment of reflex behaviours involved with tail control and righting, and damage to the sensory hairs of the statocyst. Effects persisted for timeframes of immediately after, 14, 120 and 365 days after exposure and could affect rock lobster ecology such as feeding, predator avoidance, locomotion and social behaviours, as suggested in FRDC (2016).
4. The survey area overlaps with the Victorian Rock Lobster fishery, which is described in the accepted environment plan with 'fishery effort is throughout the operational area but concentrated over "the Big Reef" in the south-east of the proposed acquisition area and near shore rocky reefs'. Effects from seismic noise on rock lobster described at ground (3) above would result in impacts to their catchability, causing a significant and immediate economic impact to fishers in the upcoming fishing season from loss of income, should the activity proceed as detailed in the environment plan in force.
5. The Crowes Foot Seismic Survey is scheduled to commence on 12 November 2016. The lobster fishing season commences on the 16 November 2016. At this time, Origin Energy Resources Limited does not have an in force environment plan containing control measures to remove the threat to the environment.

The activity at the premises that involves a threat to the environment is:

- The Crowes Foot Marine Seismic Survey

The threat to the environment is:

- Seismic sound exposure from the airgun array at levels that have been shown to cause negative biological effects to rock lobsters leading to an economic loss.

The environment that is subject to the threat is:

- the economic features of rock lobsters in and adjacent to the Crowes Foot survey area, which are within the Victorian Rock Lobster fishery.

I therefore direct Origin Energy Resources Limited to ensure:

That the activity as described in the environment plan in force, is not conducted in a manner that is contrary to the control measures specified in Table 4 of the document titled 'Submission to NOPSEMA – Crowes Foot Seismic Survey – Response to Section 574 Direction RMS 0625' submitted to NOPSEMA on 11 November 2016.

Signed:

██████████

██████████

NOPSEMA inspector

Dated: 11 November 2016

NOTES: (Please see back of form)

NOTES:

1. A person who fails to ensure that this notice is complied with, to the extent that it relates to a matter over which the responsible person has control, may be liable to a penalty of 600 penalty units (Schedule 2A, Clause 11A(6) of the Act).
2. This notice must be displayed in a prominent place at the premises and must not be tampered with or removed before the notice has ceased to have effect (Schedule 2A, Clauses 11B and 12 of the Act).
3. The notice may be issued to the titleholder by being given to the titleholder's representative at the premises who is nominated for the inspection (Schedule 2A, Clause 11A(3) of the Act).
4. 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 (Schedule 2A, Clause 11B(2) of the Act):
 - a. the operator's representative at the facility if the premises are a facility, and
 - b. the vessel master if the premises are a vessel under the command or charge of a master, and
 - c. the owner, if the premises are, or the plant, substance or thing is, owned by a person other than the titleholder or operator.
5. A notice ceases to have effect in relation to a titleholder when a NOPSEMA inspector notifies the titleholder that the inspector is satisfied that the titleholder, or another person, has taken adequate action to remove the threat to the environment (Schedule 2A, Clause 11B(6) of the Act). The titleholder may choose to provide such evidence as it considers relevant in order to satisfy the NOPSEMA inspector that adequate action has been taken under this clause.
6. A titleholder who is aggrieved by the decision to issue or the content of this notice may make a complaint to NOPSEMA under the Regulatory Services Charter available on NOPSEMA's website or challenge the decision by way of a judicial review in Federal Court under the *Administrative Decisions (Judicial Review) Act 1977*.