

Key Issues Report

OMV New Zealand Limited

EEZ100017

JULY 2018

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Introduction

1. My name is Tone Carmona-Noklegaard. I am a Senior Advisor in the EEZ Applications team at the Environmental Protection Authority (EPA).
2. I hold a Bachelor's degree in Science and a Masters' degree in Marine Biology and Limnology. Prior to joining the EPA in January 2017 I had over 10 years' experience from monitoring and assessing effect of activity in the offshore, coastal and estuarine environments, both within the public and private sector in Ireland and Norway. A large part of my work in Norway involved the assessment and monitoring, of effects from offshore oil and gas operations.
3. The documents listed in Table 1 have formed the basis for my report.
4. Table 1. Documents reviewed for this key issues report.

Date	Author	Organisation	Document Title
26 March 2018	Dan Govier	SLR Consulting	Marine discharge consent application – deck drainage
25 May 2018	Frank Lyle Broomhead	Oil and Gas Solution (OGS)	Technical review and analysis of operational activities associated with marine discharge consent.
14 June 2018	June Cahill	EPA	Section 54(1) request for further information
7 June 2018	Peter Winterbourne	OGS	Email correspondence– clarification
3 July 2018	Rob Lieffering	Stantec	Dealing with uncertainty - OMV marine discharge consent application

Background

5. OMV New Zealand Limited (OMV) holds a number of permits under the Crown Minerals Act 1991 (CMA). Conditions and rights are associated with these permits. For petroleum exploration permits (PEP), this includes the obligation to drill at least one well in each exploration permit area, within a set date, or surrender the permit. For petroleum mining permits (PMP), this includes the right to develop a discovered petroleum field to extract and produce petroleum.
6. Starting in 2019, OMV plans to carry out an exploration and appraisal drilling (EAD) programme, within existing OMV CMA permit areas. This programme will include the drilling of up to nine exploration wells, to determine the presence of (commercially) viable petroleum resources, and up to three appraisal wells, to determine the size of a resource and/or how to develop it most efficiently. The EAD programme may continue until 2025.
7. In order to carry out any drilling activity in the Exclusive Economic Zone (EEZ), OMV needs a number of marine consents under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act).

8. On 27 March 2018, OMV lodged an application with the EPA for a marine discharge consent (EEZ100017) for discharge activities restricted under section 20B of the EEZ Act.
9. Additional consents are required in order for OMV to commence its EAD programme. The discharge of trace amount of harmful substances through the deck drains, however, is the only activity subject to the current application (EEZ100017), and the only part of the EAD programme specifically considered in this report.

Purpose of the key issues report

10. This report addresses what I consider to be two key and fundamental issues associated with the application that the Decision-making Committee (DMC) will need to consider as part of its decision making process. These two issues are:
 - a) uncertainty in the application arising from the specific drilling rig not being known at the time of lodging the application; and
 - b) if the DMC is minded to grant consent subject to conditions, which framework for the classification, consideration, and management, of harmful substances is adopted.
11. I have deliberately not provided a conclusion/recommendation on whether the application should be granted or refused.
12. This report has been prepared before the exchange of evidence by both the applicant and submitters. I have not considered submissions lodged on the application. Additional information, may therefore be provided in evidence, and during the hearing.

The application – EEZ100017

Scale and scope of the application

13. OMV's planned EAD programme involves a range of activities. A number of consents, and other permissions, will be required in order for the EAD programme to be carried out. OMV's current application (EEZ100017), however, only seeks consent for one of these activities, to discharge trace amounts of harmful substances through the non-hazardous and hazardous deck drains of the mobile offshore drilling unit (MODU) into the sea as offshore processing drainage.
14. There is no volume threshold, or minimum quantities, of harmful substances that trigger the need for a marine discharge consent. Section 20B of the EEZ Act, applies to trace amounts which may be left on the decks after the clean-up of drips and spills. The proposed discharge of trace amounts of harmful substances being either oil, or substances ecotoxic to aquatic organisms¹, as offshore processing drainage, is classified under regulation 16(1) of the Exclusive Economic Zone and Continental Shelf

¹ and is hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017

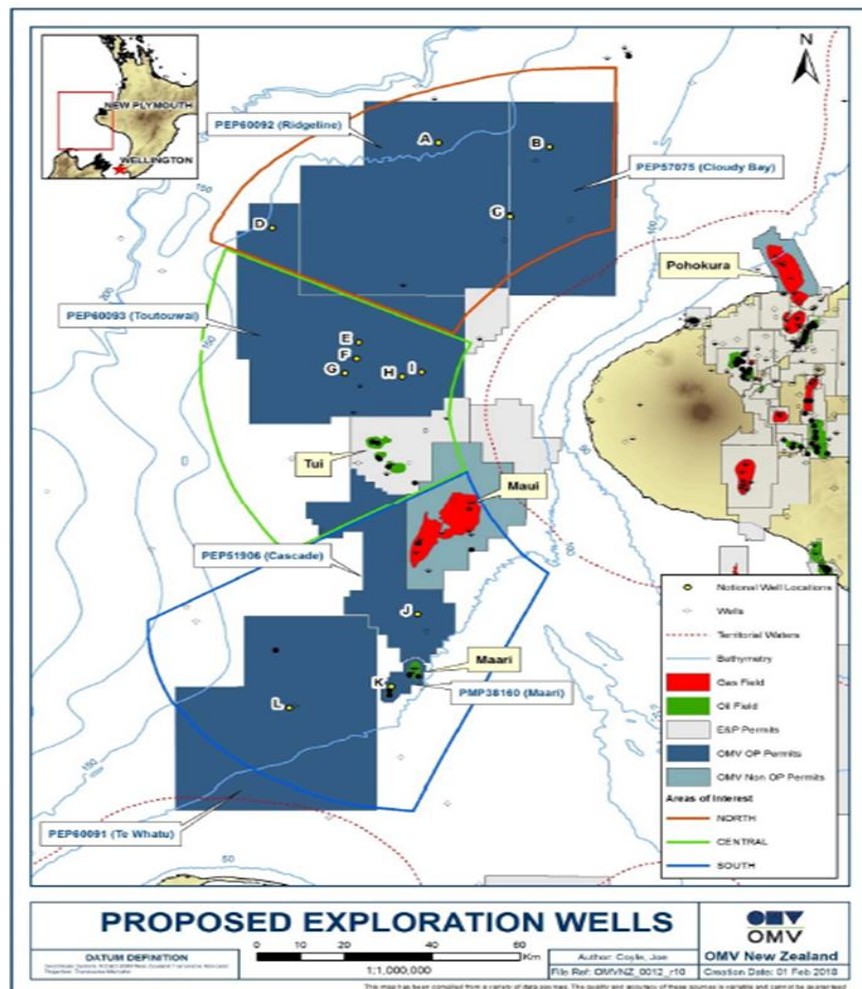
(Environmental Effects - Dumping and Discharge) Regulations 2015 (D&D Regulations) as a discretionary activity.

Proposed activity

- OMV plans to carry out an EAD programme, within OMV's existing permit areas under the CMA. As outlined in section 3.1 of the application, the programme is planned to commence in 2019. It will include the drilling of up to nine exploration wells, and up to three appraisal wells by use of a MODU. The programme will be completed as a part of one or more drilling campaigns, and it is therefore possible that more than one MODU will be used.
- The activity for which consent is sought, outlined in section 3.4 of the application, is the intermittent discharge of trace amounts of harmful substances through the deck drains of the MODU(s) used for the EAD programme. In section 7.2 of the application, the trace amounts referred to are those which may remain on the decks after the clean-up of drips or spills, that are too minor in local concentration to be observed by eye, or to be absorbed or collected through the cleaning procedures in place on the MODU, and subsequently become entrained in water which runs off the decks and into the drains.

Location

- Section 3.1 of the IA outlines the location of the proposed activity. The wells will be drilled within OMV's permit areas, offshore Taranaki.



Statutory framework

The EEZ Act 2012

Purpose

18. The purpose of the EEZ Act as set out in section 10 of the EEZ Act is:

- (a) to promote the sustainable management of the natural resources of the EEZ and the continental shelf; and*
- (b) in relation to the EEZ, the continental shelf, and the waters above the continental shelf beyond the outer limits of the EEZ, to protect the environment from pollution by regulating or prohibiting the discharge of harmful substances and the dumping or incineration of waste or other matter.*

Decision making function

19. The EEZ Act prescribes the decision making function of the EPA. For this application, decision-making has been delegated to the DMC by the EPA Board.
20. In order to best discharge its responsibilities for assessing, hearing and deciding OMV's application, the DMC must take into account or have regard to the decision-making criteria in sections 59 and 60, and apply the information principles outlined in section 61 of the EEZ Act.
21. The decision-making criteria in section 59 apply to any application for a marine consent. For a marine discharge consent, however, section 59(2A)(a) directs the DMC to specifically exclude the matters described in section 59(2)(c) from its considerations, which relates to the effects on human health that may arise from effects on the environment. Section 59(2A)(b) instead directs the DMC to take into account the effects on human health of the discharge of harmful substances, if consent is granted.
22. Section 61(1)(b) of the EEZ Act requires the DMC to base its decisions on the best available information. Section 61(5) defines that for the purposes of section 61, best available information means the best available information that, in the particular circumstances, is available without unreasonable cost, effort, or time.
23. Under section 61(2), if the information available is uncertain or inadequate, the DMC must favour caution and environmental protection. As OMV's application is for a marine discharge consent, section 61(4)(a)(ii), provides that if the information available is uncertain or inadequate, the DMC is not able to consider, whether taking an adaptive management approach would allow the activity to be undertaken.

Conditions of consent

24. Section 59(2)(j) of the EEZ Act requires the DMC to take into account the extent to which imposing conditions under section 63 might avoid, remedy, or mitigate the adverse effects of the activity. Under section 63(1) the DMC may grant a marine consent on any condition that it considers appropriate to deal with adverse effects of the activity authorised by the consent on the environment or existing interests. Section 63(2) gives examples of the types of condition which may be imposed, and sections 65 to 67

(bonds, monitoring, observers) give further detail regarding the type of conditions outlined in section 63(2).

25. Under section 64(1AA)(b), section 64 (adaptive management approach) does not apply to a marine discharge consent. Conditions under 63(2)(b), which together amount or contribute to an adaptive management approach, can therefore not be imposed, if consent was to be granted.
26. Sections 63(3) and 63(4) give further detail of conditions which cannot be imposed on consents. These include:
 - a) conditions which are inconsistent with the EEZ Act or any regulations, or
 - b) conditions to deal with an effect, if the condition would conflict with a measure required in relation to the activity by another marine management regime (MMR) or the Health and Safety at Work Act 2015.
27. In addition to the conditions which the DMC may impose, if consent was to be granted, other conditions volunteered by OMV, including those that may be outside those that the DMC may impose under the Act, may also be imposed and become enforceable, by the EPA. Such conditions are often referred to as 'Augier' conditions. The prohibitions in section 63(3) and 63(4), however, still apply.

Section 20B restriction

28. The discharge of harmful substances from a structure into the sea is a restricted activity under section 20B of the EEZ Act.
29. Section 4 of the EEZ Act defines structure to mean any building, equipment, or device and includes an offshore installation. The MODU when anchored, or connected to the wellhead, is considered to be a structure.

The D&D Regulations 2015

Offshore processing drainage

30. The harmful substances that will be kept on-board the MODU(s), and therefore have the potential to be discharged as offshore processing drainage, will be driven by operational requirements of the MODU, the well design, and the geology of the formation being drilled (section 3.4.1). OMV has not yet decided on the MODU(s) for its EAD programme, nor has it completed its well designs. The specific harmful substances that will be on-board the MODU(s) are therefore not yet known.
31. Under regulation 3 of the D&D Regulations, offshore processing drainage:
 - (a) means water from hazardous and non-hazardous deck drains; but
 - (b) does not include oil mixed with water from machinery spaces.

Offshore processing drainage therefore includes water that runs off a drilling rig incidental to its drilling activities, e.g. rainwater.

32. Regulation 16 of the D&D Regulations pertains to discharge from petroleum extraction activities. Under regulation 16(1) the discharge of harmful substances described in regulation 4(a) and (b) from offshore processing drainage is classified as a discretionary activity under the Act if the substance is:
- (a) ecotoxic to aquatic organisms and is hazardous for the purposes of the Hazardous Substances (Classification) Notice 2017; or
 - (b) oil.
33. The discharge activity proposed by OMV does not relate to regulation 16(2) (test flow of exploration drilling), or 16(3) (from an existing structure). The MODU is not an existing structure; it is a new structure brought in for a specific drilling operation.

Emergency spill response plan

34. Under regulation 24 of the D&D Regulations, the owner of an offshore installation must not operate the offshore installation without an Emergency Spill Response Plan (ESRP) approved by the EPA. Under regulation 24(3), the ESRP must contain emergency spill response procedures for any ecotoxic, or very ecotoxic, substance, held on-board in volumes exceeding 20 litres, and for any other substances covered by regulation 4(a), where substances are held in volumes exceeding 100 litres. Under regulation 24(4)(a), these procedures must include:
- (i) a list of harmful substances stored on the offshore installation;*
 - (ii) the maximum volumes of the substance likely to be stored on the offshore installation; and*
 - (iii) a description of the processes and activities that present a risk of a spill of a substance.*
35. The list of harmful substances to be held on the MODU, as described above, will need to be provided to the EPA, in accordance with the ESRP requirements under regulation 24(5) of the D&D Regulations at least two months before the date on which operations are due to begin.

Hazardous Substances and New Organisms Act 1996

Purpose

36. The purpose of the Hazardous Substances and New Organisms Act 1996 (HSNO Act) as set out in section 4 is:
- (a) to protect the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.*

HSNO approvals

37. Under section 28 of the HSNO Act an importer or manufacturer of a hazardous substance must obtain approval(s) for the substance under the HSNO Act. Approval must be obtained prior to the substance being imported or manufactured.
38. Any harmful substance intended for use as part of OMV's EAD programme, or to be stored on-board the MODU while it carries out the EAD programme, will need to hold an existing approval under the HSNO Act.

Hazardous Substances (Classification) Notice 2017

39. Most of the hazardous substance rules the EPA remains responsible for are set in EPA Notices rather than by regulation. This includes rules for environmental controls and hazardous substances disposal controls.
40. Under section 74 of the HSNO Act, the EPA may issue a notice establishing a hazard classification system. Such a classification system is in place under the Hazardous Substances (Classification) Notice 2017. The classification system groups substance according to their exotoxicity. The classification is represented by:
- (a) a number which identifies the class and subclass of the hazard;
 - (b) a letter, which ranks the hazard; and
 - (c) an associated hazard phrase.
41. The HSNO classification most relevant to this application is 9.1, which relates to aquatic ecotoxicity. The HSNO 9.1 classification has four separate groups which vary depending on the ecotoxicity, as follows:
- (a) HSNO Class 9.1A – substances that are very ecotoxic in the aquatic environment
 - (b) HSNO Class 9.1B – substances that are ecotoxic in the aquatic environment
 - (c) HSNO Class 9.1C – substances that are harmful in the aquatic environment
 - (d) HSNO Class 9.1D – substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
42. The HSNO Act and classification system uses the term 'hazardous substance' when referring to substances that are ecotoxic to aquatic organisms. The EEZ Act, and associated regulations, uses the term 'harmful substance' when referring to oils and harmful substances that are ecotoxic to aquatic organisms. All 9.1 classified substances are considered ecotoxic under the regulation 16(1) of the D&D Regulations.

Key Issues

Introduction

43. After reviewing the documents, as listed in table 1, and considering the scale and scope of the application, I consider that there are two key issues associated with the application that the DMC will need to consider as part of its decision-making process under sections 59-61 of the EEZ Act:
- (a) Information uncertainty in the application arising from the specific drilling rig not being known at the time of lodging the application.
 - (b) If the DMC is minded to grant consent subject to conditions, which framework to adopt for the classification, consideration, and management, of harmful substances.

Information uncertainty

44. This application has been lodged before OMV has contracted the specific MODU(s) to be used in the EAD programme. That gives rise to uncertainty around:
- (a) the specific on-board deck drainage system;
 - (b) the specific level of treatment deck drainage will receive prior to discharge;
 - (c) the on-board system for the management of harmful substances, and
 - (d) the suite of chemicals that may be used or stored on-board the MODU(s).
45. The EPA commissioned, under section 56 of the EEZ Act, Dr Rob Lieffering of Stantec to provide expert advice on best practice in assessing and determining applications where there is information uncertainty. Dr Lieffering has reviewed the nature and extent of uncertainty in the application. He has usefully set out an approach to uncertainty, and provided a set of considerations for the DMC. I note his advice on the effect of section 61(3) and (4) of the EEZ Act which prevents the DMC from adopting an adaptive management approach to conditions, if it finds there is such uncertainty that it may be minded to refuse consent.
46. I have reviewed Dr Lieffering's report and adopt its findings and conclusions that the uncertainty present in the application is not of itself a barrier to granting consent to this application. If the DMC were minded to grant consent, conditions under section 63 of the EEZ Act, and the required ESRP procedures, could provide key mitigation or control mechanisms around the storage and use of harmful substances on the MODU(s).

An appropriate approach to the management of harmful substances

47. Section 3.4.1 of the application outlines considerations for which harmful substances may be present on the MODU(s). This includes the operational considerations of the MODU(s), the well design, and the geology of the formation to be drilled. OMV also notes that all harmful substances to be used as part of the EAD programme will have to be approved under the HSNO Act and that the use of these substances during any EAD programme will be in accordance with all of the requirements under HSNO controls and the relevant WorkSafe regulations.
48. Given the uncertainty regarding the harmful substances that can be discharged from the MODU(s), the DMC may wish to consider placing conditions restricting the types of harmful substances that may be discharged.
49. In terms of which hazardous substance classification system to adopt for that purpose, it is the EPA's view, and one that I support, that the most appropriate approach to classifying hazardous substances according to their aquatic ecotoxicity in New Zealand, is to use the New Zealand HSNO classification system.

50. All harmful substances imported or manufactured in New Zealand must have an approval under the HSNO Act. All approved substances will have a set of controls which manage the risk associated with that substance, for example, they must be appropriately packaged and labelled, and some have controls that restrict how they can be used, to minimise risks to the environment. All harmful substances which are present in a workplace must have Safety Data Sheets (SDSs). These are documents which provide basic information about the substance, and what to do in case of an emergency. They must comply with the requirements of the Hazardous Substance SDS Notice (2017).
51. Substances which are ecotoxic to aquatic organisms are given the HSNO 9.1 classification. Any substance which has a 9.1 classification is considered a harmful substance under the D&D Regulations and requires a marine discharge consent from the EPA to be discharged.
52. Substances that do not receive a 9.1 classification under the HSNO Act may be discharged without a marine discharge consent.
53. The advantage of using the HSNO classification system, is that it is already a mandatory requirement for all importers or manufacturers to know the classification of their substance before they import it to New Zealand, or manufacture it in New Zealand. Consequently the HSNO classification system is the best known approach for ranking harmful substances in New Zealand among harmful substance suppliers and users. The use of a different, albeit internationally recognised, classification system could present unnecessary complications such as:
- (a) harmful substances classified using alternative classification systems, may not have HSNO approval, and therefore cannot be used in New Zealand; and
 - (b) it is not guaranteed that harmful substances available in New Zealand can be classified using classification systems other than HSNO, this could prevent an operator from using substances that are critical to operations on-board a structure here.
54. The DMC should turn its mind to consider the most appropriate hazardous substance classification system to be used for any conditions imposed, if it is minded to grant consent.

Conclusion

55. I have considered OMV's application, impact assessment, and appendices; OGS's and Stantec technical reviews; and EPA's request for further information from the applicant under section 54 of the EEZ Act.
56. I consider that the key issues associated with the proposed activities are those outlined in this report.

END



**Environmental
Protection Authority**
Te Mana Rauhi Taiao