



How the law protects our ocean environment during oil and gas exploration and drilling

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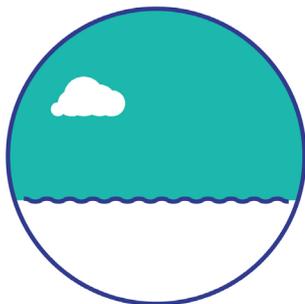
Our ocean environment is protected by a number of laws. The development of oil and gas reservoirs follow a number of steps; at each step there are a number of approvals and permissions needed from different Government agencies, including the EPA. Find out more in this factsheet.

The law

The management by the EPA of the environmental effects of oil and gas exploration and development drilling operations are set out in:

- Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012
- Exclusive Economic Zone and Continental Shelf (Environmental Effects – Permitted activities) Regulations 2013
- Exclusive Economic Zone and Continental Shelf (Environmental Effects – Non-notified activities) Regulations 2015
- Exclusive Economic Zone and Continental Shelf (Environmental Effects—Discharge and Dumping) Regulations 2015

How the law applies during the development of an oilfield



Step 1

An operator first assesses whether oil and gas are likely to be present within the seabed. Most of these initial exploration steps are carried out as **permitted activities**. That is, specific permissions are not required from us, the EPA, to undertake seismic surveying, marine scientific research, or prospecting. Although permissions are not required, the operator must tell us before they undertake these activities (and give us specific information before they begin). They must also let us know when they finish. Find out more about this in our companion factsheet: *Permitted activities in New Zealand's offshore waters*.

Seismic surveys can only go ahead after a permit is issued by NZ Petroleum and Minerals, and they must comply with the Department of Conservation's 2013 Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations.



Step 2

The next step usually involves exploration and appraisal drilling either by a jack-up rig in shallow water (depths less than 200 m), or in deeper water on a structure known as a Mobile Offshore Drilling Unit (MODU). A MODU can be a type of semi-submersible drilling rig, or a specially-designed drill ship. This type of drilling is classified by the law as a **non-notified activity**. This means we do not ask the general public for their views: there is no public submission process, but we must advise certain parties, including iwi, hapū and customary groups, regional councils, and Government agencies.

As part of this step, an operator will usually need consents for the discharge of harmful substances into the ocean. This is explained overleaf.



Step 3

Development drilling is only carried out if there is a proven oil or gas resource to extract. This is a **publicly notified activity**. This means we must notify the public by calling for submissions in the four main daily newspapers, and the local newspaper. We also give copies of the application to a range of parties, such as iwi authorities, regional councils, existing interests and Government agencies.

Development drilling may occur in a newly-discovered oil or gas field where an operator has to build very expensive offshore infrastructure to support the extraction of the resource. This can be a platform as in the Māui and Maari Fields, or a subsea system of wells as in the Tui Field, all offshore Taranaki. It is more common for development drilling to occur from existing oilfield facilities within existing well slots, or by a technique called side-tracking, where new wells are run off from existing wells, often many hundreds of meters below the seabed.



Step 4

At the end of an oil and gas field's life - when the oil and gas resources are uneconomic to extract - the operator shuts down a field by decommissioning its facilities and assets such as structures, pipelines, and the support vessels anchored in the field. The Government is part way through developing new regulations to specify the approvals needed for this step.

The intention is that operators will need to obtain a range of permissions for this stage to either remove structures, pipelines and facilities or to leave some assets behind, including in 'rigs-to-reefs' schemes (a decommissioned facility which is left in place to become an artificial reef).

Discharges

No discharge containing a harmful substance (something ecotoxic to marine organisms) is **permitted** without a marine consent, or unless it meets certain dilution standards set by the EEZ Act. Typical discharges come from seawater or rainwater draining off a deck, bilge water, water from a machinery space, water contaminated with cleaning products.

Different types of discharges need different permissions or consents. Some like drilling fluids are processed as **non-notified discharge consents**. For these there is no public submission process. Other discharges, like offshore processing drainage from new structures, require a **publicly notified consent** before they can happen. For these we invite public submissions through notices in newspapers.

It is illegal to discharge harmful substances from any structure or pipeline without the necessary permission or consent.

Emergency spill response plan

An offshore installation must not be operated until it has an EPA-approved Emergency Spill Response Plan (ESRP). This is a record of all of the harmful substances to be stored onboard a vessel or a drill rig, or any other facility. It outlines the proposals for the safe handling and storage of those substances.

The ESRP does not need an EPA consent, but we do need to see it and approve it.

Other requirements

- The safety of personnel on structures (under WorkSafe NZ)
- The integrity and safety of wells (under WorkSafe NZ)
- The safety of personnel on board vessels (Maritime NZ)
- Oil Spill Contingency Plans (Maritime NZ)
- The Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations (Department of Conservation)

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