

Advisory Circular

ISSUE NO 200-1, 18 MAY 2007

PART 200 (OFFSHORE INSTALLATIONS — DISCHARGES)

1.1 General

Maritime New Zealand advisory circulars are designed to give you assistance and explanations about standards and requirements set out in the rules. However, the notes contained in advisory circulars should not be treated as a substitute for the rules themselves, which constitute the law.

1.2 Purpose of the Advisory Circular

This advisory circular provides owners and operators of offshore installations with information about preparing and submitting for approval discharge management plans as required by Marine Protection Rules Part 200.

Any operator wishing to make an application for approval of a discharge management plan should first refer to this advisory circular along with Part 200 to determine what information is required in the plan.

Templates for a number of reporting and recording forms are included in the attached annexes. Operators are encouraged to adopt these standard templates to ensure that vital information is recorded and reported.

Additional information and advice can be sought from the Maritime New Zealand:

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1.3 Application of Part 200 [Rules 200.3(1)]

This advisory circular relates to offshore installations as defined in Part 200.

Part 200 defines an offshore installation as:

- a. *“any artificial structure (including a floating structure that is not a ship) used or intended to be used in or on, or anchored or attached to, the seabed for the purpose of the exploration for, or the exploitation or associated processing of, any mineral;*
- b. *for the purposes of rules 200.1 to 200.12, 200.22 and 200.23, a pipeline permanently attached to an offshore installation;”*

Part 200 requires a discharge management plan to cover both the offshore installations and any pipeline or other oil transfer site that is permanently attached to that installation.

Once on-site, an FPSO is also classed as an installation and subject to this rule.

1.3.1 Relationship of Part 200 with Other Legislation and Guidelines [Rule 200.3]

While Part 200 applies generally to all offshore installations operating within waters under New Zealand jurisdiction, some of the specific rules within it do not apply to those installations operating within the internal waters or territorial sea of New Zealand (ie. within 12 nautical miles from the shore). As such, operators should determine those provisions of Part 200 that apply to their specific operations. If in any doubt, operators should consult with Maritime NZ for clarification.

Note that in addition to the requirements for discharge management plans under Part 200, offshore installations within the internal waters or territorial sea are subject to the requirements of the Resource Management Act 1991 and the Hazardous Substances (Emergency Management) Regulations 2001. To ensure compatibility with regional marine oil spill contingency plans, plans for adjacent sites and other relevant legislation operators should consult with their local regional council(s), the Chief Petroleum Inspector and a hazardous substances inspector prior to completing the discharge management plan.

At present, the *Environmental Best Practice Guidelines for the Offshore Petroleum Industry* (Guidelines) assist in establishing some consistency in the requirements for activities within the 12 nautical mile Territorial Sea and those outside the 12 nautical mile limit but within New Zealand jurisdiction. While Part 200 regulates for aspects of discharges from offshore installations, the general principles and recommendations outlined in the Guidelines are still relevant.

1.4 Discharge Management Plans [Rules 200.4 – 200.12]

1.4.1 What is a discharge management plan?

A discharge management plan is an environmental management plan that applies to the control and management of discharges of harmful substances (including oil) from offshore installations to the marine environment. The primary purpose of the discharge management plan is to establish procedures and practices aimed at reducing environmental impacts associated with such discharges.

An approved discharge management plan demonstrates that the operator of an offshore installation has:

1. Identified and taken steps to control activities that may harm the marine environment. These include managing normal operating discharges, appropriate selection and use of chemicals, and implementing technologies that minimise the volume and toxicity of discharges to the marine environment;
2. Identified and taken steps to minimise those activities that present a risk of accidental discharge (a spill) of harmful substances (including oil); and
3. Prepared an approved emergency response plan that demonstrates that the operator can respond in a timely manner to a spill of a harmful substance into the marine environment from that installation.

A discharge management plan is required for every offshore installation operating within waters under New Zealand jurisdiction. Under Section 277 of the Maritime Transport Act 1994, it is an offence to operate an offshore installation without an approved discharge management plan.

For maximum effectiveness, a discharge management plan should be an integrated part of the overall management system of the installation, and may be linked to the offshore installation safety case.

1.4.2 What is a Harmful Substance? [Rule 200.2(1)]

A discharge management plan is required for the discharge of all harmful substances. For the purposes of Part 200 a harmful substance is defined as:

- *any substance which is ecotoxic to aquatic organisms and considered hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001; and*
- *oil.*

Section 226 of the Maritime Transport Act, 1994 (MTA) prohibits the discharge of any harmful substance from offshore installations into the sea of New Zealand's EEZ other than in accordance with the marine protection rules.

A more detailed discussion of the definition of ecotoxicity is provided in section 6.3.3 of this advisory circular.

When preparing a discharge management plan, operators should compile a comprehensive inventory of all chemicals that may be discharged from the installation. Any chemicals that meet the above definition of a harmful substance are to be clearly identified in the plan.

1.4.3 Contents of a Discharge Management Plan

The requirements for the contents of a discharge management plan are detailed in Schedule 1(1) of Part 200 and are discussed in detail in the following sections of this circular.

Briefly, the plan for every offshore installation operating in waters under New Zealand jurisdiction must include:

- details of the location of the installation and the field;
- drawings or plans of the installation and any at risk environments;

- details of the proposed operations at the installation;
- particulars of all oils stored at the installation;
- dispersant testing results on all stored oils;
- the likely fate of spilled oil including weathering information and spill trajectory modelling;
- descriptions of activities that present an oil spill risk and any risk mitigation measures;
- descriptions of areas and resources at risk from a spill;
- emergency response procedures for oil spills

In addition, the plan for every controlled offshore installations (ie. installations outside the 12 nautical mile limit but within New Zealand’s Exclusive Economic Zone (EEZ) or beyond the outer limits of the EEZ but above the continental shelf) must also include the following information in respect to all harmful substances used:

- Particulars of the substance and its degradation and transformation products;
- Maximum volumes of the substance stored and storage methods used;
- The purpose the substance is used for;
- Maximum concentrations and amounts of the substance to be used;
- Chemical and toxicity data;
- Descriptions of processes and activities that present a risk of spills and any risk mitigation measures;
- Emergency response procedures for spills of harmful substances; and
- An explanation of how produced water from the facility is to be managed.

Annex I of this circular provides a suggested format for the discharge management plan. Any application must be made in accordance with rule 200.5.

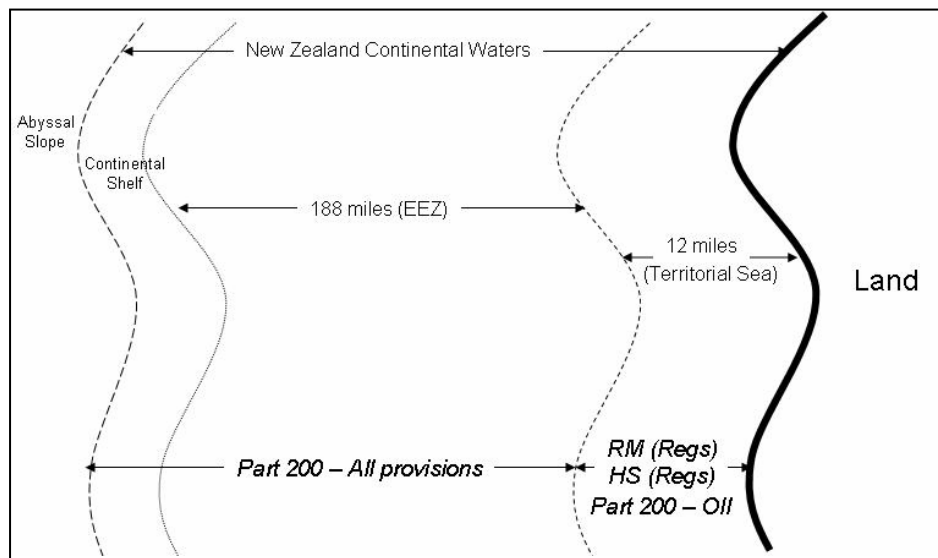


Figure 1: Jurisdictional boundaries

1.5 Making an application [Rule 200.5]

1.5.1 Who Processes an Application?

All discharge management plans must be approved by the Director of Maritime New Zealand (hereafter 'the Director'). Applications for approval of discharge management plans will be reviewed by Maritime NZ staff who will recommend to the Director whether the plan meets all of the requirements of Part 200 and should be approved.

1.5.2 Form of an Application

While there is no prescribed form for a discharge management plan, every application should address three fundamental components associated with the site or operation:

1. Policies and procedures to identify and minimise the impacts associated with operational discharges; An identification of the risk of a harmful substance spill from the site, including procedures to prevent or minimise spills; and
2. Emergency response procedures detailing the actions to be taken in the event of a spill of a harmful substance.

It is not possible to produce a standard set of emergency response procedures for all harmful substance spill scenarios as a range of factors will affect the response to the spill. These factors include:

- the quantity and type of substance spilled;
- location;
- weather and tides;
- environmental sensitivity of the area; and
- organisational structure of the operator and availability of response equipment and trained personnel.

Each plan must therefore be customised to reflect the specific risks posed by the individual installation and/or operation.

Every application must be accompanied by a hard copy of the plan as well as an electronic copy. All documents must be prepared in English.

1.5.3 Timeframes for Making an Application

Applications for approval of a discharge management plan are to be submitted to Maritime NZ at least 2 months prior to the commencement of drilling or production activities. This is to allow sufficient time for Maritime NZ staff to review the documentation and request any required additional information, to enable the plan to be approved prior to the commencement of activities. Where operators can demonstrate that it is impossible to comply with this timeframe, the plan should be submitted as early as possible to allow maximum time for review and processing.

Applicants should note that testing and characterisation of oil (as required in Schedule 1) may take several weeks to complete, depending on the availability of appropriate laboratory facilities. In some cases, samples may need to be sent overseas for detailed analysis. Adequate time for this testing should be allowed.

1.5.4 Advice and Assistance in Preparing an Application

Any operator seeking approval for a discharge management plan should consult with Maritime NZ at an early stage to ensure that all relevant information is contained in the application. This will greatly facilitate the approval of the application.

Advice and assistance with preparing site plans is available from following sources:

- Maritime NZ can provide advice on policy and legislative requirements, spill behaviour in marine environments, spill risk assessment, and equipment and training requirements including any constraints on the use of certain response/clean-up options;
- Regional Councils and Regional Conservancies of the Department of Conservation can assist with identification of sensitive areas within individual regions and call-out contacts; and

These organisations may seek to recover all or any of the costs incurred in providing assistance for the preparation of plans.

1.5.5 Cost Recovery

Maritime NZ will invoice the applicant for the cost incurred in processing an application for a discharge management plan. Authority to recover these costs is found in the Shipping (Charges) Regulations 2006. The charge will be based on the time taken to process the application calculated on an hourly charge authorised by these regulations. That charge is currently set at \$141 per hour or part thereof for managerial or scientific staff and \$101 per hour for technical staff.

1.6 Contents of a discharge management plan

1.6.1 Details of the Site and its Operation

A basic requirement of the discharge management plan is drawings or plans showing the layout of the facility and mapping its location in relation to sensitive environmental resources. The scale of the map should be appropriate to the proximity of sensitive resources.

Specific information that should be detailed in the site plans includes, but is not limited to:

- Key oil/harmful substance storage and transfer areas;
- Any primary and secondary containment devices;
- The location of pipelines and valves including emergency shut-off and isolation valves;
- The routes whereby oil or harmful substances may enter the marine environment, including the location of stormwater drainage systems;
- The location of areas that may suffer environmental damage as a result of an oil or other harmful substance spill.
- Detailed maps of specific sensitive locations should also be included.

1.6.2 Oil Spill Risk Assessment and Prevention Measures

[Rule 200.5; Schedule 1 Paragraph 1(1)(c-g)]

Every discharge management plan for an offshore installation requires a risk assessment to evaluate the likelihood and possible consequences of a marine oil spill.

1.6.2.1 *Purpose of a risk assessment*

Risk assessment should form the basis of the proposed response to an oil spill. Significantly, the risk assessment will indicate the response capability that should be located at or made available to that site. The results of this assessment should be presented either within or accompanying the discharge management plan.

Risk is defined as the probability and severity of impact. It follows that a relatively high probability spill of a small volume of oil in a sensitive area may have a similar risk to a low probability, catastrophic event (e.g. a blow-out) occurring in an environmentally robust area remote from the coast.

Determination of risk depends upon identifying potential oil release events and their extent, the transport and fate of the oil and the presence of sensitive environments in the area.

1.6.2.2 *Risk inventory*

In order to fully understand the risk and potential consequences of an oil spill it is necessary to understand the specific risks present on the installation. Operators should prepare a comprehensive inventory of all oils stored or produced at the installation. This inventory should include, as a minimum, the following details:

- Types of oil e.g. diesel, crude oil, heavy fuel oil;
- Volumes stored or flow volumes of each oil type;
- Copies of all fuel specifications sheets and full MSDS sheets as appropriate¹; and
- Details of the frequency and volumes of oil transferred to or from the site.

In order to determine the severity of the impact of an oil spill it is necessary to understand the likely behaviour and fate of individual oils once they have been spilled. Chemical and physical analysis should establish the weathering and partitioning characteristics of individual oils stored or handled at the site. In particular the following characteristics should be determined:

- Specific gravity
- Dynamic viscosity
- Pour point
- Wax/asphaltene content

In addition, all oils should be tested for dispersant effectiveness against a range of dispersants approved for use and held in New Zealand.

1.6.2.3 *Probability/likelihood*

New Zealand currently has inadequate local statistics on which to base assumptions about the probability of specific oil spill scenarios from offshore installations. However, the United Kingdom Department of Trade and Industry (DTI) has been publishing information, on the number of spills from offshore activities, since 1975.

¹ It is acknowledged that MSDS sheets will not be available for crude oils. However, information on their characteristics and behaviour should be supplied.

In the absence of local data, the UK *Offshore Operators Association Report on the Analysis of DTI UKCS Oil Spill Data* may be used as the basis to assess oil spill probability. Similar sources of information include the US Minerals Management Service, and the NOAA Oil Spill Case Histories Database (1967 – 1991). Operators should consult with Maritime NZ about the source of such data and their application in New Zealand. In environmentally sensitive areas, additional analysis may be required.

1.6.2.4 *Impacts and sensitive environmental resources*

Oil spill trajectory modelling should be used to indicate the likely fate of spilled oil and will assist in the assessing potential impacts. Both stochastic and deterministic modelling should be carried out and the results visually displayed within the plan.

To determine the potential consequences of a spill on the receiving environment, it is also necessary to understand the resources at risk from a spill. A detailed baseline description of the surrounding environment should therefore be included in the plan, highlighting sensitive components. The discharge management plan must include a detailed description of high priority or sensitive sites and of the potential impacts of an oil spill and any cleanup activities, on these sites. This information is then used along with the oil spill trajectory modelling to determine the likelihood and severity of impact.

Information on specific resources at risk and priority sites for protection within New Zealand territorial waters should be available in the relevant region's Tier 2 Regional Marine Oil Spill Contingency Plan. These sites should be clearly identified on the plan or map as discussed in section 4.1.

Maritime NZ has developed a framework for assessing the sensitivity of the environment to oil spills. This framework is summarised in Annex II and may provide a useful approach for operators to adopt in undertaking such an assessment.

1.6.2.5 *Oil spill prevention*

Having identified specific risks, the operator should identify the steps and measures taken or proposed to remove those risks. In order to do this, the operator will need to:

- Identify all events, activities and processes that pose a threat of an oil spill;
- Consider all operations undertaken on the site that might contribute to a spill event;
- Highlight those activities that present the greatest risk of a spill.

Details of all preventive actions, mitigation measures and standard operating procedures that will be employed at the site to reduce or prevent those risks identified above, must be provided.

Examples of preventive measures may include:

- Site design considerations such as the construction of secondary containment bunds;
- Operating procedures such as the precautionary deployment of containment booms around bunkering/oil transfer operations;
- Standard operating procedures to be followed during oil transfer operations to avoid hose/pipeline failure or overfilling tanks;

- Blocking deck scuppers to contain spills onto the deck or secondary security devices for hose couplings.

1.6.3 Harmful Substances Other than Oil [Rule 200.5; Schedule 1 Paragraph 1(2)]

Every discharge management plan for a controlled offshore installation is to include a risk assessment for all harmful substances other than oil that may be discharged from the facility.

1.6.3.1 *Inventory of Harmful Substances*

Operators should prepare a comprehensive inventory of all harmful substances that may be discharged from the site. In each case, the following details should be provided:

- Properties of the harmful substances;
- Maximum amounts stored;
- Intended use of the harmful substances;
- Amounts or concentrations expected to be used and/or discharged;
- The substance chemical classification in accordance with the *Hazardous Substances Minimum Degrees of Hazard Regulations 2001*.

1.6.3.2 *Risk assessment*

Operators will need to assess the risks to the environment of harmful substances other than oil. In general, the risk assessment should consider the same matters as for oil (section 6.2 above). However the principal purpose of this assessment is to assist in identifying and using the most environmentally benign alternatives.

The risk assessment process for harmful substances other than oil should separately consider the toxicity of the chemicals and products released in a discharge. It is essential that the risk assessment includes a reasoned argument for the use of the substances selected and that this is balanced against the potential for negative effects on the marine environment. This discussion may include operational/commercial requirements for product use, and/or reference to monitoring data or specific knowledge that enables a more accurate prediction of chemical fate and effects.

For each chemical the ecotoxic category of the substance must be specified, and the concentrations at which it will be discharged determined. Where a substance has not previously received an ecotoxicity classification in New Zealand testing of the substance in accordance with the guidelines set out by the Environmental Risk Management Authority will be necessary.

It should be noted that while the Hazardous Substances and New Organisms (HSNO) Act 1996 does not apply within the New Zealand EEZ, operators submitting an offshore installation discharge management plan for approval should still consult the *User Guide to HSNO Thresholds and Classifications* (ERMA 2001) for full details of the classification system and testing regime.

Annex 3 of this document includes a suggested template Chemical Data Sheet to be completed for each harmful substance and submitted with the discharge management plan inventory.

In addition to the ecotoxic properties of the substance, environmental impact will be a function of both the environmental fate of the substance and the sensitivity of the receiving ecosystem. The properties of a harmful substance should include ecotoxicity data, biodegradation rates, and partitioning parameters (eg. the extent to which compounds accumulate in biota and sediment). Some of this toxicity information will be available on the full MSDS for the substance or its constituents.

1.6.3.3 *Ecotoxic properties*

The HSNO Act 1996 specifies nine classes of hazardous substances. Class 9 substances are those that are classed as ecotoxic. Within the Class 9 category there are four subclasses, namely:

- Ecotoxic with aquatic effects (Subclass 9.1);
- Ecotoxic with soil effects (Subclass 9.2);
- Ecotoxic with terrestrial vertebrate effects (Subclass 9.3); and
- Ecotoxic with invertebrate effects (Subclass 9.4).

For the purposes of Part 200 the Director is concerned only with those substances that fall under subclass 9.1 – Aquatic Effects.

Schedule 6 of the threshold criteria defined in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 states:

- 2 (1) *A substance with ecotoxic properties is not hazardous for the purposes of the Act unless –*
- (a) *the substance is ecotoxic to aquatic organisms because –*
- (i) *data for the substance indicates that the fish LC₅₀ is 100 milligrams or less of the substance per litre of water over a 96-hour exposure period, as a result of exposure to the substance; or*
 - (ii) *data for the substance indicates that the crustacean EC₅₀ is 100 milligrams or less of the substance per litre of water over a 48-hour exposure period, as a result of exposure to the substance; or*
 - (iii) *data for the substance indicates that the algal EC₅₀ is 100 milligrams or less of the substance per litre of water over a 72-hour or 96-hour exposure period, as a result of exposure to the substance; or*
 - (iv) *data for the substance indicates that the chronic fish [No Observable Effects Concentration (NOEC)], or chronic crustacean NOEC, is 1 milligram or less of the substance per litre of water, as a result of exposure to the substance; or*
 - (v) *in the absence of the NOEC data prescribed in subparagraph (iv) data for the substance indicates that it is not rapidly degradable and is bioaccumulative.*

Subclass 9.1- Aquatic effects classification are further categorised according to the following criteria:

Category 9.1A – Substances that are very ecotoxic in the aquatic environment

A substance for which data indicate an acute aquatic ecotoxicity value less than or equal to 1 milligram of the substance per litre of water.

Category 9.1B – Substances that are ecotoxic in the aquatic environment

Unless the chronic aquatic ecotoxicity value is greater than 1 milligram of the substance per litre of water, a substance:

- a) For which data indicate an acute aquatic ecotoxicity value greater than 1 milligram, but less than or equal to 10 milligrams, of the substance per litre of water; and
- b) That is not readily degradable or is bioaccumulative, or is not readily degradable and is bioaccumulative.

Category 9.1C – Substances that are harmful to the aquatic environment

Unless the chronic aquatic ecotoxicity value is greater than 1 milligram of the substance per litre of water, a substance:

- a) For which data indicate an acute aquatic ecotoxicity value greater than 10 milligram, but less than or equal to 100 milligrams, of the substance per litre of water; and
- b) That is not readily degradable or is bioaccumulative, or is not readily degradable and is bioaccumulative.

Category 9.1D – Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action

- a) A substance for which data indicate that:
 - i. the acute aquatic ecotoxicity value is greater than 1 milligram per litre of water, but less than or equal to 100 milligrams of the substance per litre of water, but which does not meet the criteria for hazard classification 9.1B or 9.1C; or
 - ii. the chronic aquatic ecotoxicity value is less than or equal to 1 milligram of the substance per litre of water, but which does not meet the criteria for hazard classification 9.1A, 9.1B, or 9.1C; or
- b) A substance that is designed for biocidal action, other than a substance that is designed for biocidal action against a virus, protozoan, bacterium, or an internal organism in humans, or in other vertebrates, but does not meet the criteria for any hazard classification in Class 9 other than 9.1D; or
- c) A substance that is not rapidly degradable and that is bioaccumulative, unless the chronic aquatic ecotoxicity value is greater than 1 milligram of the substance per litre of water, but that does not meet the criteria for hazard classification 9.1A, 9.1B, or 9.1C.

The use of chemicals assigned to Category 9.1A or 9.1B will need to be defended including an explanation of any risk mitigation measures implemented. The use of chemicals that are candidates for substitution with less ecotoxic substances will also need to be defended. Consideration of alternative products that may represent a lower environmental risk should form part of the risk management process.

The purpose of this approach is to seek the use of less hazardous chemicals wherever possible.

1.6.3.4 *Unforeseen use of chemicals*

The discharge management plan should also include those harmful substances that may need to be used on a contingency basis (for example, chemicals to be used in the event of problems encountered during drilling). It is acknowledged that in very rare circumstances the unforeseen use of chemicals may be required at extremely short notice. On such occasions the use of the harmful substances must be discussed with the Maritime NZ prior to use to allow for revision of the discharge management plan.

In granting emergency permission for such an unforeseen use the Director will need to be satisfied that the environmental consequences of such use have been considered. Operators will need to submit evidence of the use of the substance in accordance with Rule 200.9.

1.6.4 Emergency Response Procedures for Marine Spills

[Rule 200.5; Schedule 1 Section 2(3)]

Every discharge management plan must include emergency response procedures to address spills of oil into the marine environment. For controlled installations, the emergency response procedures must also address spills of harmful substances other than oil.

The basic aim of any response action is the effective and immediate containment and/or mitigation of a spill of oil or other harmful substance. A plan will guide the site owner/operator to take immediate and effective action to minimise the impact of the spill on the environment. This will include containing the spill either within the site itself or if appropriate, within an area beyond the immediate site boundary.

While not essential, it may be desirable to submit the emergency response procedures as a separate annex (in the form of an emergency response plan) to the discharge management plan. This will save the user having to search through the supporting documentation in order to find critical response procedures. In any case, the emergency response procedures must be clearly identified and easily located within the wider discharge management plan.

1.6.4.1 *Site marine oil spill contingency plan*

Section 287 of the MTA requires that every oil installation in waters under New Zealand jurisdiction have an approved site marine oil spill contingency plan. Part 200 requires that contingency plans include emergency response procedures to deal with spills of harmful substances other than oil.

It is accepted that the general response provisions for a spill of oil and for other harmful substances will be very similar, with specific response priorities and procedures tailored to individual substances. It is therefore expected that operators will prepare contingency plans that address response activities to both oil and other harmful substances. Where response activities are specific to a particular substance this should be highlighted and described in the contingency plan.

These emergency response procedures will, therefore, cover the requirements for a site marine oil spill contingency plan but also address more widely the response procedures to spills of other substances.

Under the provisions of Part 200 offshore installations located entirely within New Zealand territorial waters are required only to provide emergency response procedures for oil spills (i.e. not other harmful substances)². As such, the emergency response plans for such facilities can be correctly termed a New Zealand Offshore Installation Site Marine Oil Spill Contingency Plan.

1.6.4.2 *Purpose of emergency response procedures* [Schedule 1 - Section 2]

The emergency response procedures must describe, in detail, the planned response in the case of spills of oil or other harmful substances that are likely to pollute the marine environment. Every discharge management plan should clearly state the priority actions to be taken to respond to a spill. These actions should include the following steps:

- Ensure the safety of personnel above all else;
- Stop the discharge/prevent further discharges, identifying the location of critical shutoff or isolation valves;
- Contain the discharged oil and prevent spilled oil entering the sea (if the oil spill is contained on the installation);
- Notify relevant parties/authority of the spill;
- Evaluate the extent of the spill and appropriate response options;
- Cleanup spilled oil or other substances where possible;
- Dispose of waste responsibly; and
- Review plan and restock response equipment.

1.6.5 What is required in terms of oil spills response?

Oil spill response in New Zealand is divided into 3 tiers according to location and severity:

Tier 1

Tier 1 responses are site specific. All Tier 1 site operators are expected to plan for and provide a clearly identifiable first response to pollution incidents for which they are responsible.

Tier 2

Tier 2 responses are the responsibility of regional councils, which are expected to plan for and respond to marine oil spills within their part of the territorial sea where the spills exceed the clean-up capability of Tier 1 response, or where no responsible party can be identified.

Tier 3

Tier 3 is a national level response and is controlled by Maritime New Zealand, which manages the National Marine Oil Spill Contingency Plan for spills within a region that are beyond the resources of the region, or which occur within the EEZ or otherwise outside regional council boundaries.

² This does not exclude operators from other statutory obligations such as those under the Resource Management Act 1991.

1.6.5.1 *Key functions and responsibilities of industry*

The New Zealand Marine Oil Spill Response Strategy defines the role of Tier 1 operators in terms of oil spill response and planning as follows:

Functions

- To prevent possible marine oil spills during normal operations;
- To develop and maintain oil spill contingency plans appropriate to their industry, location and risk profile; and
- To be able to provide at least an initial response to oil spills they create, and a further response if practical.

Responsibilities

- To develop, actively promote and audit an oil spill prevention philosophy and practice to a high standard among all those associated with handling oils;
- To develop and maintain approved, site-specific oil spill contingency plans (emergency response procedures), in accordance with Part 200 including:
 - identifying locally sensitive environments;
 - identifying a means to rescue and rehabilitate oiled wildlife;
 - nominating suitably qualified persons to act as the site On-Scene Commander;
- To develop and maintain an operational response capacity to oil spills, as specified in the site marine oil spill contingency plan;
- To ensure the safety of personnel;
- To be a party to the regional response effort as agreed to in any regional marine oil spill contingency plan;
- To assist any regional or national On-Scene Commander with the salvage, storage, disposal and recycling of recovered oil; and
- To assist any On-Scene Commander as required with skills, resources and expertise.

1.6.5.2 *Operators of oil pipelines*

Operators should note that contingency plan arrangements applying to offshore installations also apply to all pipelines permanently attached to those installations. As such, operators of oil pipelines should have in place the capability to verify any oil pollution reports.

The risks of pipeline leakage should be addressed and the spill contingency plan should focus on the potential for oil leaks reaching the coastline where this may occur.

1.6.6 Response Options [Schedule 1 - Section 2(3)]

Where a spill occurs from an offshore installation, the first priority should be the safety of personnel. Once this has been established the next priority should be to stop any further spillage and to contain the spill on board the installation as far as possible.

The proposed response should be based on the results of the risk assessment.

1.6.6.1 *Applying chemical dispersant*

The use of dispersant is one of the most effective means of dealing with a spill in an open water environment. Effectiveness will depend on the type of oil and speed of response, including availability of suitable dispersants.

All dispersants used in New Zealand marine waters must be approved by the Director, subject to the provisions of marine protection rules Part 132. Operators proposing the use of a specific dispersant type within New Zealand should check with Maritime NZ that the product is approved.

All oil handled by the installation should be tested against a range of approved dispersants available in New Zealand. Where facilities handle a number of different oils, the individual components, as well as the combined fluids should be examined during testing. Operators should consult with Maritime NZ over appropriate testing procedures to demonstrate the efficacy of selected dispersants on specific oil.

For drilling operations where dispersant use is the proposed response method, testing should be conducted when the first samples of crude become available.

Dispersant testing should be done irrespective of whether the operator proposes to use dispersant as a response option in the discharge management plan. The information obtained on the dispersibility of the target oil will increase understanding of the range of available response options, and the likely outcome of a spill of that target oil. In the event of a Tier 3 event, Maritime NZ may choose to use dispersants and prior dispersant testing against the target oil will be invaluable in this event.

1.6.6.2 *Containment and recovery of spilled oil*

An offshore containment and recovery response is generally regarded as less effective than the use of dispersants in open water environments. Mobilisation time, encounter rate, weather and logistics may all act to reduce the success of the containment and recovery. However, for large volumes or ongoing spills or where the oil is not dispersible, this option should be considered to prevent oil reaching sensitive environments. Sites and operators should maintain a minimum set of equipment to deal with small spills on board the installation. Estimates for mobilisation and deployment times for any equipment that is held on the installation should be provided and staff should be trained in the use of this equipment. The plan should also include procedures for waste oil handling and disposal. Maritime New Zealand has stockpiles of oil response equipment located around the country, which can be mobilised in the event of a major spill.

1.6.7 Response to Spills of Harmful Substances Other Than Oil [Schedule 1 – Paragraph 2(2)]

Generally speaking, it will not be possible to physically respond to most spills of harmful substances other than oil. Many chemicals are water-miscible and oil spill equipment will not be effective. In cases where the harmful substance does not remain on the water surface, recovery and cleanup will not generally be possible. In such circumstances the response to such an incident will most likely be restricted to predicting and monitoring the effects of the spill.

Operators should have access to chemical data for all harmful substances used, including specific information on the ecotoxicity of the substances on marine organisms. Computer plume modelling of dispersed chemical spills can assist in predicting the likely impacts of such an incident and assist in designing appropriate monitoring programmes. A number of such packages are available worldwide.

In many other respects such as protection of personnel safety, stopping and minimising the spill etc, a spill of a harmful substance other than oil should be responded to as if it were oil, and the provisions of Schedule1 applied.

1.6.8 Personnel Responsibilities and Contact Lists

Every discharge management plan must clearly indicate the roles and responsibilities of key response personnel. New Zealand has adopted a modified version of the Coordinated Incident Management System (CIMS), which clearly sets out the different functional groups within an incident command structure (Figure 1).

Operators are encouraged to adopt the same or a similar structure in order to provide for seamless transition in the event of escalation of a spill response situation. However, it is recognised that individual companies may have established emergency response structures consistent with internal company policy.

The list of contacts will depend to a large extent on the size of the response team required to implement the plan. However, as a minimum the contact list should include:

- Site supervisor or operations manager;
- Maritime NZ Maritime Rescue Coordination Centre;
- Emergency services; and
- The Regional Council – Regional On-Scene Commander or 24 hour pollution hotline;

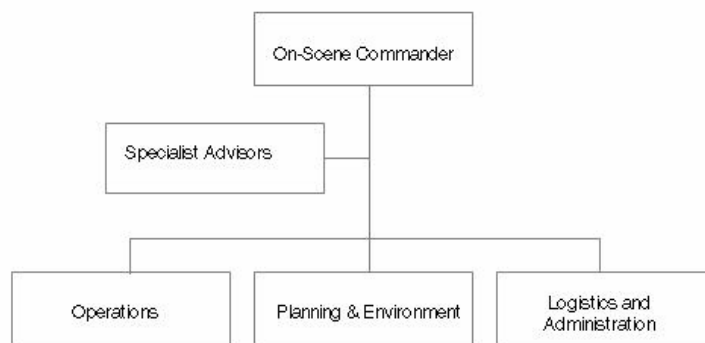


Figure 1: Standard Incident Command Centre Structure

1.6.9 Training of Personnel [Rule 200.11(a)]

For emergency response procedures to be effective, it is essential that the personnel involved receive training appropriate to their responsibilities under the response plan. It is important that sufficient suitably trained staff are available to respond to a spill despite staff turnover or movements. The specific requirement for training supplements the general obligation, under section 268 of the Maritime Transport Act, on all holders of marine protection documents to provide appropriate training for employees. The level of

training required will vary depending on the operations of the installation, the response equipment carried and the expected duties of individual staff in a spill response.

Maritime New Zealand run oil spill response courses for regional and national spill response staff at the authority's Marine Pollution Response Service Centre in Auckland and limited places on these courses are available to industry employees. Details of upcoming courses are available by contacting:

Marine Pollution Response Service
Maritime New Zealand
755 Te Atatu Road
Box 45209 Te Atatu North
Auckland
Phone: (+64) 9 834 3908 Fax: (+64) 9 834 3907

Operators are encouraged to liaise and coordinate training and exercises with other operators and regional response teams. Information on planned exercises is also available from the Maritime NZ.

Maritime NZ does not currently provide training for responding to spills of harmful substances other than oil.

1.6.10 Testing & Reviewing Emergency Response Procedures [Rule 200.12]

Emergency response plans must be subject to regular exercises, with the full plan tested at least once every 12 months. This will ensure that all personnel are familiar with the procedures and also that those procedures are still current and appropriate for the installation.

Following each exercise, the operator must review the emergency response procedures to ensure that they are still adequate and effective to deal with a real spill scenario. A record must be kept of this review. Regional On-Scene Commanders should be invited to participate in such reviews where appropriate.

1.6.11 Changes during the currency of a discharge management plan

Where an existing discharge management plan, including emergency response procedures, is modified substantially, rule 200.9(1) requires that the operator must apply for approval from Maritime NZ for those modifications. Approval is also required where the existing use or layout of an installation is changed such that the risk of a spill is increased. In accordance with Rule 200.9, there is no need to reapply for approval for modifications to the plan to amend 24-hour contact lists, or to record the reassignment of response personnel responsibilities.

NOTE: Changes during the currency of the plan do not require resubmission of the entire discharge management plan.

Once the modifications have been approved by the Director, the operator must amend the existing discharge management plan to take account of the modifications and as soon as reasonably practicable provide a copy of the updated approved plan to the Director and any other person holding a copy of the plan.

Where the Director considers the proposed amendments are so substantial as to change the overall purpose and scope of the discharge management plan, he or she may to require a new discharge management plan to be submitted.

1.6.12 Reporting of Spills [Rule 200.22]

In the event of a spill, it is vital to know who to call and who is responsible for specific functions. The contact list in the discharge management plan should address this requirement.

Rule 200.22 requires that immediately after any spill, the operator must use the procedures outlined in the discharge management plan to report the spill to the regional council within whose region the spill occurred or to the Director where the spill is beyond the territorial sea. Every discharge management plan may therefore include a written procedure for reporting any spill from the offshore installation.

Annex IV of this advisory circular contains a suggested notification form to be completed and forwarded to the relevant authority.

1.7 Operational discharges during exploration and production

1.7.1 Use of Drilling Fluids

Rule 200.16 specifies that only water based or synthetic based drilling fluids may be used on controlled offshore installations. The only exception to this is where alternative drilling fluids are essential for geological, technical or safety reasons and the Director allows such use.

The physical/chemical characteristics, and thus the toxicity of water based drilling fluids (WBF) are different than those of synthetic based drilling fluids (SBF) or oil based drilling fluids (OBF). Although water based drilling fluids are the more environmentally favourable option, for both technical and safety reasons, it is recognised that SBFs or even OBFs may still be required in situations where drilling operations are more complex (e.g. in the lower sections, in specific formations, in high pressure/high temperature wells and in non-vertical drilling operations).

1.7.1.1 *Managing the Impacts of Drilling Wastes*

Possible methods of reducing the environmental impacts of drilling wastes include:

- Reducing waste volumes by:
 - increased recycling of muds and chemicals
 - using reduced casing, slim-hole, coiled tubing drilling techniques, or multilateral (multiple drain hole) wells
- Reducing the toxicity of drilling fluids and cuttings by:
 - using WBF and high pressure WBF instead of SBM or OBF;
 - using the best available solids recovery equipment in order to remove SBF and OBF prior to cutting discharge;
 - reducing the hydrocarbon content of cuttings by mechanical (centrifuge, wash), chemical (solvent extraction) or thermal clean-up treatment prior to discharge. Monitoring studies indicate that the adverse impacts of cuttings with OBF residuals that are discharged after thermal treatment are minor and comparable with those of WBF contaminated cuttings.
- Reducing the toxicity of drilling wastes by:

- Using chemicals with lower toxicity and lower levels of biologically available heavy metals;
- reducing the use of biocides
- Effective management of drilling wastes including:
 - confined disposal (onshore or by re-injection)
 - shore-based processing/recycling of drilling waste

Environmentally, fluids injection may be considered the preferred solution in many cases. There are few reported problems associated with the disposal of drill fluids by re-injection into subterranean formations. From the environmental point of view, the greatest concern is the contamination of shallow fresh water aquifers or breakthrough to surface, i.e. ground level or seabed.

1.7.2 Production Water Management [Rules 200.14]

The objective of environmental management of production water is to reduce the quantity and to improve the quality of the discharge. The discharge management plan should clearly identify how the operator intends to implement strategies to minimise the overall impact of production water discharges.

The composition of production water varies widely depending on the stage of production and the characteristics of the field. Its impact on the environment, in turn varies depending on its composition and dilution and the characteristics of the receiving environment. Environmental concern over production water has mainly focused on the residual hydrocarbons. However, ecotoxicity studies of whole production water effluents shows that hydrocarbons are only partly responsible for the observed toxicity.

In addition to the compounds originating in the formation water, any additives used in the production processes may contribute to the toxicity of production water. Special care should be given in selecting biocides and chemicals based on surfactants, which may be highly toxic to marine species.

Production water management generally follows a series of steps, as follows:

1. Select the least hazardous chemicals in order to minimise produced water toxicity;
2. Re-use produced water if quality allows (e.g. re-injection for pressure maintenance);
3. Reduce the volume of produced water discharged into the ambient environment;
- and
4. Reduce pollutant concentrations of discharged produced water.

A number of technologies exist and are being developed for the treatment of production water and operators should determine those that best suit their operations while achieving an acceptable level of water treatment. A summary review of existing production water treatment technologies is available on request from Maritime New Zealand.

1.7.3 Production Water Discharges [Rule 200.14(1)]

The monthly average of dispersed oil-in-water content must not exceed 30 mg/litre. However, operators should strive to achieve an oil-in-water concentration no greater than 50 mg/litre at any times. Concentrations are to be measured twice daily and noted in the Oil Record Book.

Where the monthly mean concentration exceeds 30 mg/litre this must be notified to Maritime NZ on a monthly basis along with an explanation of the reason for the non-compliance and any measures taken to address this. Notwithstanding this, it is accepted that on rare occasions it may not be possible to achieve these standards consistently. In such cases, the Director may authorise a higher limit for the discharge until such time as

the operator can satisfy him/her that the required discharge standard can be maintained. However, the maximum concentration must not exceed 100 mg/litre at any time.

In the event that the concentration of dispersed oil-in-water exceeds 50mg/litre the operator must notify Maritime NZ of the non-compliance as soon as practicable. If the concentration of dispersed oil in water exceeds 100 mg/litre at any time the operator must notify the Maritime NZ of an oil spill in accordance with the procedures set out in the emergency response procedures of the discharge management plan.

1.7.3.1 *Monitoring and Reporting of Production Water Discharges* [Rule 200.14; 200.21]

Testing of the dispersed hydrocarbon concentration of production water should be conducted twice daily and use standard methods for measurement of total recoverable hydrocarbons (e.g International Standard ISO 9377-2:2000 *Water quality -- Determination of hydrocarbon oil index -- Part 2: Method using solvent extraction and gas chromatography* or equivalent). Alternative methods, such as continuous sampling, must be approved by the Director and should be discussed with Maritime NZ staff. Records of all test results should be kept in the Oil Record Book along with records of the daily volumes of production water and other drainage water discharged.

1.7.4 Transitional arrangements [Rule 200.30]

Part 200 applies to all new offshore installations from the date of entry into force.

- a) However, Part 200 allows a phase-in period of up to two years for existing offshore installations.

All operators are, however, encouraged to implement the provision of Part 200 as quickly as practicably possible.

ANNEX I

SCHEDULE 1 REQUIREMENTS FOR INCLUSION IN A DISCHARGE MANAGEMENT PLAN

1 Risk identification, assessment and prevention

- (1) Every discharge management plan must include –
 - (a) details of the location of the offshore installation and of the field to which the application relates;
 - (b) up to date and accurate drawings or plans showing –
 - (i) the general arrangement of the installation, in particular, the places and systems associated with the storage or transfer of fuels including tank capacity, filling arrangements, isolation valves and drainage systems highlighting the critical isolation points;
 - (ii) those areas or parts of the installation identified as presenting the greatest risk of a marine oil spill; and
 - (iii) locations in the vicinity of the installation identified as at risk of environmental damage should a marine oil spill occur;
 - (c) details of the proposed operations at the installation;
 - (d) particulars of all oils stored at the installation including characteristics, specifications, material safety data sheets and the maximum volume for each type of fuel to be held on site;
 - (e) information on the nature and effectiveness of dispersants on individual oils;³
 - (f) information on the likely fate of spilled oil including weathering characteristics and the likely movement of any oil spilled from the installation;
 - (g) a detailed description of all the processes and activities which present a risk of pollution from an oil spill, with a list of specific procedures to reduce the risk of an oil spill; and
 - (h) a detailed description of those areas identified as at risk of environmental damage as a result of an oil spill including possible social, cultural and economic implications.
- (2) The discharge management plan of a controlled offshore installation must also include, in respect of every harmful substance to be used on the installation –
 - (a) particulars of the substance;
 - (b) such details as the Director may require of any or all the degradation and transformation products of the substance (that may arise as a result of the operation for which the harmful substance is used);
 - (c) the maximum volumes of the substance that can be stored on the installation and the method of storage;
 - (d) the purpose of the substance;
 - (e) the maximum concentration of the substance to be used in combination with any other substance;
 - (f) the maximum amounts of the substance to be used in specific periods;
 - (g) a completed chemical data sheet –
 - (i) in a form acceptable to the Director; and
 - (ii) containing as a minimum the information set out in Schedule 2;

³ To inform a national response in the event of a spill.

- (h) the ecotoxic nature of the substance, with reference to schedule 6 of the Hazardous Substances (Classification) Regulations 2001; and
 - (i) a detailed description of those processes and activities that present a risk of accidental discharge of the substance and a list of actions to be taken and procedures in place to reduce the risk of a spill.
- (3) The discharge management plan for a controlled offshore installation must explain how the production water, displacement water, offshore processing drainage and any other water emanating from the well product, is to be managed, including –
- (a) selection of the least hazardous chemicals to minimise the toxicity of that water;
 - (b) the options to be used to reduce the volume of production water discharged to the marine environment;
 - (c) the method to be used to monitor the concentration of dispersed oil in production water; and
 - (d) the procedure by which dispersed oil content, which exceeds the limits laid down in rule 200.14, is to be recorded in the Oil Record Book or reported in accordance with that rule.

2 Emergency response procedures for spills of oil and harmful substances


- (1) Every discharge management plan must contain emergency response procedures for oil spills.
- (2) The discharge management plan of a controlled offshore installation must also contain emergency response procedures for spills of harmful substances.
- (3) Emergency response procedures must include –
 - (a) guidance to ensure the safety of personnel;
 - (b) information to help personnel at the installation deal with a spill by detailing the actions necessary to stop, minimise or mitigate the effects of a spill, including procedures for –
 - (i) determining what action to take in response to a spill;
 - (ii) preventing escalation of the spill;
 - (iii) stopping the discharge at its source, if possible;
 - (iv) identifying the safety and environmental consequences of any remedial action; and
 - (v) determining whether the spill can be contained or cleaned up using the resources available to the owner or any other person responsible for implementing the emergency response procedures;
 - (c) details of the response options available to the installation;
 - (d) the procedure by which spills are to be reported in accordance with rule 200.22;
 - (e) the procedure by which spills that the person responsible for implementing the emergency response procedures considers cannot be cleaned up or contained using the resources available to him or her, are to be reported in accordance with rule 200.22;
 - (f) a list of 24-hour contact information, including that of –
 - (i) the owner or the owner's representative;
 - (ii) the Director;
 - (iii) the regional council, if the installation is within a region;
 - (iv) any organisation contracted to respond to spills at the installation;
 - (v) the person responsible for implementing the plan;
 - (vi) the person co-ordinating response activities;
 - (vii) off-duty personnel with responsibilities for dealing with spills; and
 - (viii) all other persons who have interests in the vicinity of the installation that are likely to be affected by a spill from the installation;

- (g) the organisational response structure for the installation, including –
 - (i) duties of all personnel responsible for dealing with spills; and
 - (ii) positions consistent with the national civil defence emergency plan made from time to time under section 39 of the Civil Defence Emergency Management Act 2002; and
- (h) an inventory of response equipment held on the installation and personnel responsibilities for the deployment, survey and maintenance of that equipment.

ANNEX II

FRAMEWORK FOR ASSESSING ENVIRONMENTAL SENSITIVITY TO MARINE SPILLS

Overview of the Oil Spill Sensitivity Assessment and Rating Sequence



Define the coastal dimensions (i.e. cell)
for a stretch of coastline.

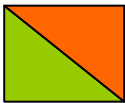
Example	X		
Example			
Example		X	
Example			
Example			X

Describe resources in the cell by rating all resources (refer to Table 1) e.g. presence/absence for a resource in that cell.

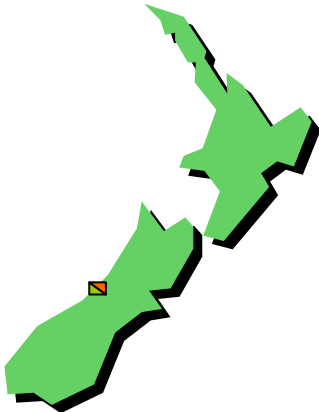
	Resource Category	Consequence Level Description				
		Zero or Negligible (score 0)	Low (score 1)	Moderate (score 5)	Unknown or High (score 20)	Extreme (score 50)
Environment	Shoreline type		●			
	Biological & Ecological		●			
	Protected Sites	●				
Human	Economic			●		
	Cultural			●		
	Social, Amenity & Recreation				●	

Qualitatively rate the cell (using the consequence table in Table 2) for:

- Shoreline Character
- Plants & Animals
- Protected Sites
- Economic
- Cultural
- Social, Amenity & Recreation



Visually summarise the oil spill sensitivity of the human and environmental resources in the coastal cell.



Build up a picture of the sensitivity of the area of coast to oil spill by assessing all cells around the potentially affected area and visually depicting them on a map.

Table 1: Resource descriptions and summary of scoring methodology

Resource Type	Resource Category	Resource Group	
ENVIRONMENT	Shoreline Character	Exposed rocky headlands Scoria (volcanic rock) Mudstone Eroding wave-cut platforms Fine-grained sand beaches Course-grained beaches Exposed compacted tidal flats	Mixed sand & gravel beaches Gravel beaches Sheltered rocky coasts Sheltered tidal flats Mangroves Salt marshes
	Plants & Animals	Birds - Sea, Wading/shore, Marsh, Penguins Fish - Estuarine, Freshwater, Marine Invertebrates - Shellfish, Crustacea, Other (e.g. kina) Reptiles Mammals - Dolphins, Seals / sealions, Whales	
	Protected Sites	International Marine Parks Marine Reserves Wildlife Sanctuaries Scientific/Nature Reserve Wildlife Refuge	Wildlife Management Reserves Regional designations Others (e.g. marine mammal sanctuary, fisheries management areas) Scenic Reserves Cultural (e.g. wahi tapu)
HUMAN	Economic	Shipping/ports Aquaculture Tourism	Fishing Infrastructure/coastal Other
	Cultural	Cultural, traditional and spiritual Tangata whenua and Maori values Community association or public esteem	
	Social, Amenity & Recreation	Fishing Diving Shellfish harvesting Swimming	Boating Amenity Access

Table 2: Semi-quantitative Consequence Matrix including Descriptions for each Resource Category

Resource Category	Consequence Level Description				
	Very Low (0)	Low (5)	Moderate (10)	High or Unknown (20)	Extreme (50)
Shoreline Character	Negligible sensitivity to oil spills	Low sensitivity to oil spills (e.g. exposed rocky headlands, eroding wavecut platforms)	Moderate sensitivity to oil spills (e.g. fine grained sand beaches, exposed compacted tidal flats, mudstone, coarse grained beaches)	High sensitivity to oil spills (e.g. mixed sand & gravel beaches, gravel beaches, sheltered rocky coasts, scoria)	Extremely high sensitivity to oil spills (e.g. sheltered tidal flats, salt marshes, mangroves)
Plants & Animals	None or very few vulnerable species present.	Vulnerable species are generally of local value only. Minor short-term effects.	Vulnerable species are local and regional importance. Limited but medium term effects.	A number of vulnerable species of regional importance, or at least one of national importance. Major but recoverable ecological damage.	A number of vulnerable species of national importance, or at least one that is irreplaceable. Permanent widespread ecological damage.
Protected Sites	No important protected sites present	Scenic Reserve or Wildlife Management Reserve.	Scenic/Nature Reserve, Wildlife Refuge.	Marine Park, Marine Reserve, Wildlife Sanctuary, Marine Mammal Sanctuary.	International protected sites (e.g. RAMSAR) .
Economic	No resources or activities of economic significance.	Low economic significance for the region and nation.	Some economic significance for the region, none nationally.	High regional economic significance, some national significance.	High national economic significance.
Cultural	No cultural importance.	Some importance for hapu, iwi and local community, low regional significance.	Important to hapu, iwi and the regional community, but low national significance.	Important to hapu, iwi and the regional community, and some national significance.	High national cultural significance.
Social, Amenity & Recreation	No community significance.	Low community significance for the region and nation.	Some community significance for the region, none nationally.	High regional community significance, some national significance.	High national community significance.

Application of the Methodology

Table 3 provides an example of how a summary assessment of a coastal cell may be represented. In this example the cell would be scored as low vulnerability for physical resources, and moderately vulnerable for human resources.

Table 3: **Example of a consequence assessment summary at cell level.**

	Resource Category	Consequence Level Description				
		Very Low (score 0)	Low (score 1)	Moderate (score 5)	Unknown or High (score 20)	Extreme (score 50)
Environment	Shoreline Character		●			
	Plants & Animals		●			
	Protected Sites	●				
Human	Economic			●		
	Cultural			●		
	Social, Amenity & Recreation				●	

Key

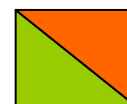


Category score for a coastal cell

Representing Cell Sensitivity

Colour	Rating	Score	
	Very Low	0	In the example above, the cell rates low for environmental resources (i.e. 0 + 1 + 1 = 2), and high for human resources (i.e. 5 + 5 + 20 = 30).
	Low	1 – 3	
	Moderate	4 – 18	This cell would be represented on a map of New Zealand as a square that is half green bottom half (for low environmental resources) and half orange top half (for high human resources).
	High	19 – 79	
	Extreme	80+	

A box of this type will represent each assessed section of coastline, e.g.



ANNEX III

INFORMATION FOR INCLUSION IN A CHEMICAL DATA SHEET FOR HARMFUL SUBSTANCES

CHEMICAL DATA SHEET

PART 1 – INTRODUCTION	
Name of operator:	
Facility/activities to which this data sheet relates:	
PART 2 – SUBSTANCE INFORMATION	
Chemical name:	UN number:
Trade name/s:	CAS number:
Alternative name/s:	ERMA Approval number:
.....	EHS number:
Components:	
Name and UN/CAS number of individual components:	Proportion by weight (%):
.....
.....
.....
Physical/Chemical Properties (this information may be provided in the MSDS):	
Physical state at 20°C:	Boiling point range (°C):to
Water reactivity:	Melting (pour) point (°C):to
Density at 20°C:	Water solubility: kg/m ³ at °C at pH
Flash point (°C):	pH:undiluted diluted
Does the preparation separate in seawater to give: floating <input type="checkbox"/> sinking <input type="checkbox"/> soluble <input type="checkbox"/> materials?	
Does it have surfactant properties?: Yes <input type="checkbox"/> No <input type="checkbox"/>	
PART 3 – SUBSTANCE USE AND DISCHARGE	
Proposed use:	
Drilling <input type="checkbox"/>	Production <input type="checkbox"/> Utilities <input type="checkbox"/>
Completion <input type="checkbox"/>	Stimulation <input type="checkbox"/> Other (state):
Normal dose rate (specify units): Frequency of treatment: /continuously	
Probable scale of use: kg/day, tonnes/yr.	

Discharge:

Closed system Open system

If open system, calculated/estimated discharge as percentage of total use:

Frequency of treatment:/ continuously

Probable amount of substance/preparation discharged: kg/day,.....tonnes/yr.

Duration of discharge, from to.....

Total estimated amount of discharge (tonnes):

Fate:

If known, explain the likely fate of the substance/preparation discharged:

PART 4 – MARINE TOXICITY DATA (this information may be provided in the MSDS):

Results:	Test protocol/species:		
Acute toxicity:		
Chronic toxicity:		
Bioconcentration	BCF	Test Concentration	Tissue Concentration Depuration Half Life
.....
Aerobic biodegradability (organic and organometallic substances only)	Day	Test Substance %	Reference Substance %
	1		
	2		
	3		
	4		

PART 5 – TRANSFORMATION AND DEGRATION PRODUCTS (if applicable)

Detail the breakdown products of this substance that will result from normal use?

ANNEX IV

NOTIFICATION OF A SPILL OF HARMFUL SUBSTANCES INCLUDING OIL

OIL/HARMFUL SUBSTANCES SPILL NOTIFICATION

FILL IN THIS FORM WITH A BLACK PEN AND FAX IT TO:			
Rescue Coordination Centre Maritime New Zealand Fax: +64 4 9148388 Ph: +64 4 9148380			
Urgent	<input type="checkbox"/>	Non Urgent	<input type="checkbox"/>
Report made by:		Installation:	
Phone:		Fax:	
ESTIMATED TIER OF RESPONSE			
Tier 1 (Local)	<input type="checkbox"/>	Tier 2 (Regional)	<input type="checkbox"/>
		Tier 3 (National)	<input type="checkbox"/>
SITUATION REPORT			
Spill location:	Latitude	Longitude	<input type="checkbox"/>
Date of Spill:	Time of Spill:	Ongoing	<input type="checkbox"/>
<input type="checkbox"/> Oil (Delete as applicable) Crude / HFO / LFO / Lubrication Oil / Diesel / Hydraulic / Aviation Fuel / Gasoline / Bilge / Unknown			
<input type="checkbox"/> Production Water with Dispersed Hydrocarbon Content > 100 mg/L Measured concentration mg/L			
<input type="checkbox"/> Other Harmful Substances Name as per Chemical Data Sheet			
Source of Spill (Delete as applicable) Land-based / Vessel / Oil Transfer Site / Offshore Installation / Pipeline / Unknown Vessel/Installation Name: Owner contact information:			
Cause of the Spill/Activity during which the spill occurred:			
Environmental Effects:			
Response Action Taken:			

Could the spill escalate? Are response costs likely to exceed \$5,000? Is media interest likely?	Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/>	No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>
IF YES TO ANY OF THE ABOVE NOTIFY THE RCCNZ IMMEDIATELY BY PHONE AND FAX THE RCCNZ THIS PAGE. If no to all of the above, tick non-urgent and fax this page to RCCNZ within 3 days.		

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