Judith-2 Exploration Well Oil Pollution Emergency Plan

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ACRONYMS

Term/Acronym	Definition
AASFA	Agriculture and Animal Services Functional Areas
AEP	Australian Energy Producers
AFMA	Australian Fisheries Management Authority
AIIMS	Australasian Inter-Service Incident Management System
AMOSC	Australian Industry Cooperative Oil Spill Response Arrangements
AMOSPlan	Australian Industry Cooperative Oil Spill Response Arrangements
AMSA	Australian Maritime Safety Authority
AEP	Australian Energy Producers
BOP	Blow-out PREVENTOR
CMT	Crisis Management Team
DEECA	Department of Energy, Environment, and Climate Action (formerly DEWLP)
DFAT	Department for Foreign Affairs and Trade
DISC	Drilling Industry Steering Committee
DISER	Department of Industry, Science, Energy and Resources
DJSIR	Department of Jobs, Skills, Industry and Regions (Victoria)
DPI	Department of Primary Industries (NSW)
DTP	Department of Transport and Planning (Victoria)
EMBA	Environment That May Be Affected
EMLO	Emergency Management Liaison Officer
EMPLAN	State Emergency Management Plan
EP	Environment Plan
EPA	Environment Protection Authority
EPO	Environment Performance Outcomes
ERP	Emergency Response Plan
ERT	Emergency Response Team
GIS	Geographic Information System
IAP	Incident Action Plan
IC	Incident Commander
ICC	Incident Command Centre
IMT	Incident Management Team
ISV	Industry Support Vessel
JSCC	Joint Strategic Coordination Committee
LOWC	Loss of Well Control
MARPOL	Marine Oil Pollution Legislation
MENSAR	Maritime Emergencies (non-search and rescue)
MDO	Marine Diesel Oil
MODU	Mobile Offshore Drilling Unit
MoU	Memorandum of Understanding
NatPlan	National Plan for Maritime Environmental Emergencies
NEBA	Net Environmental Benefit Analysis
NOPSEMA	National Offshore Petroleum Safety and Environment Management Authority
NOPTA	National Offshore Petroleum Titles Administrator
NRET	Department of Natural Resources and Environment Tasmania
NRT	National Response Team
NRST	National Response Support Team
NSW	New South Wales
OPCC	Offshore Petroleum Coordination Committee

OPGGS Act	*Offshore Petroleum and Greenhouse Gas Storage Act 2006*
OPGGS(E)R	Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023
OIM	Offshore Installation Manager
OPEP	Oil Pollution Emergency Plan
OSC	On-scene Commander
OSM	Operational and Scientific Monitoring
OSM-BIP	Operational and Scientific Monitoring Bridging Implementation Plan
OSRL	Oil Spill Response Limited
OSTM	Oil Spill Trajectory Modelling
POLREP	Pollution Report
PSZ	Petroleum Safety Zone
PSOL	Port Safety Operating License
RCC	Rescue Coordination Centre
SCERP	Source Control Emergency Response Plan
SCME	State Controller Maritime Emergencies
SCR	Safety Case Revision
SEMP	State Emergency Management Plan
SITREP	Site Report
SMEEC	State Maritime Environmental Emergency Coordinator
SOPEP	Ship Oil Pollution Emergency Plan
SSDI	Subsea Dispersant Injection
TasPlan	Tasmanian Marine Oil and Chemical Spill Contingency Plan
TEMA	Tasmanian Emergency Management Arrangements
TEM	Tasmanian Emergency Management
VEAWP	Victorian Emergency Animal Welfare Plan
Vic	Victoria
WHAM	Wildlife Health and Marine
WildPlan	Tasmanian Oiled Wildlife Response Plan
WOMP	Well Operations Management Plan
WWC	Wild Well Control

1. INTRODUCTION

1.1. Activity Description

Emperor Energy Limited (Emperor Energy) proposes to undertake a well exploration drilling program (Judith-2) in petroleum title VIC/P47, targeting a gas reservoir in the Gippsland Basin (Figure 1-1).

The permit area is fully located within offshore Commonwealth waters, approximately 13 km south-east of Marlo, Victoria, in water depths of approximately 70 m. The Operational Area for Judith-2 well has been defined as a 4 km by 4km area around the Judith-2 well location. The Operational Area encompasses the outer extent of mooring equipment on the seabed, the site surveys and the 500 m petroleum safety exclusion zone around the well.

The drilling activity will be carried out using a semi-submersible or jack-up mobile offshore drilling unit (MODU) with support vessels and helicopters. The Judith-2 Exploration Drilling Program Environment Plan (2024-007-02-02) (the EP) covers the drilling activities and all MODU, vessel and helicopter operations within the Operational Area. A 500 m Petroleum Safety Zone (PSZ) will be established around the Judith-2 well location. Refer to Section 3 of the Judith-2 Exploration Drilling EP for further details on the activity.

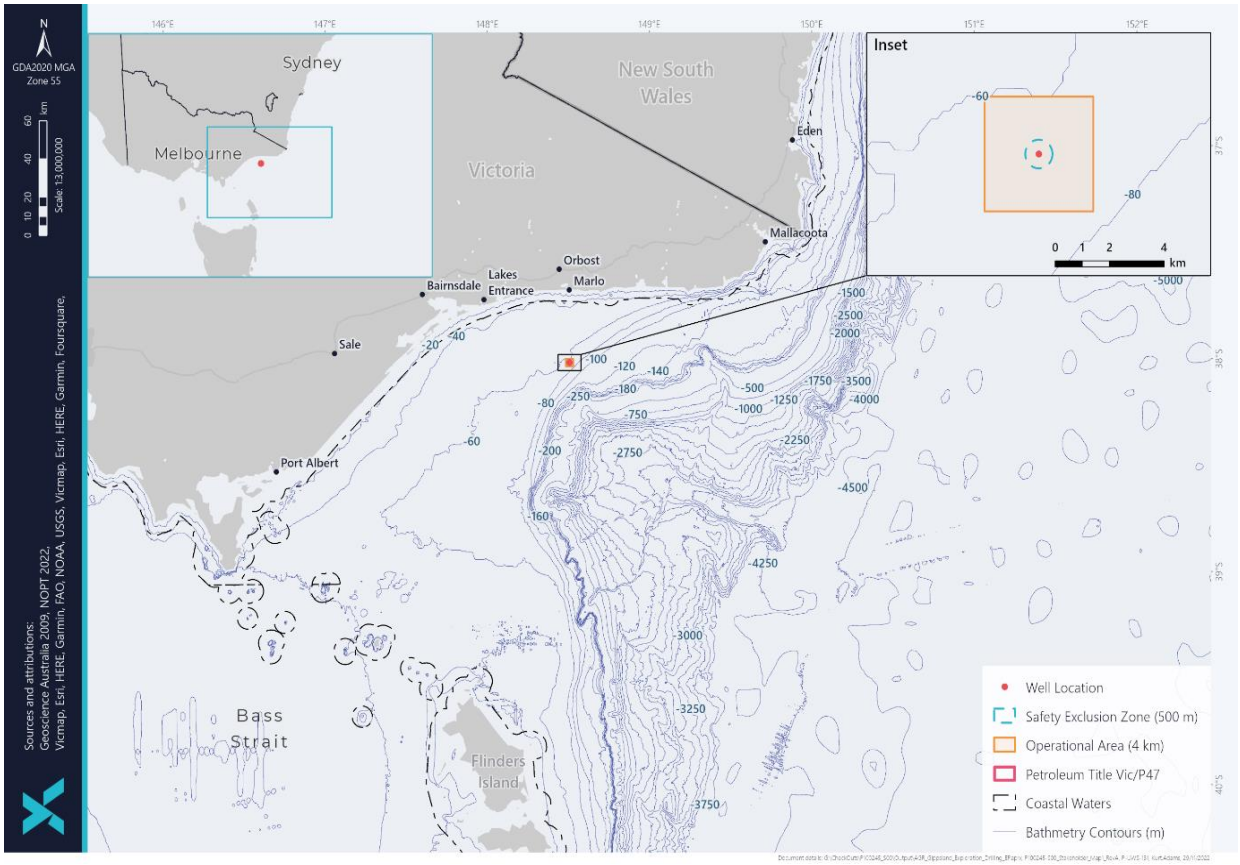

Figure 1-1 Location of the Operational Area and well location for Judith-2

1.2. Purpose

This Oil Pollution Emergency Plan (OPEP) has been prepared in accordance with Regulation 22(8) of the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023*

(OPGGS(E)R), the implementation strategy must contain an oil pollution emergency plan and provide for the updating of the plan. The OPEP has been prepared to integrate with the National Plan for Maritime Environmental Emergencies (National Plan) and the Victorian State Emergency Management Plan (SEMP) Maritime Emergencies (non-search and rescue) plan.

This OPEP is designed to be an operational response document used in the event of a hydrocarbon spill event associated with Emperor Energy's exploration drilling activities in VIC-P47, as described in the Judith-2 Exploration Drilling Program EP.

The objectives of this OPEP are to:

- Support the timely implementation of pre-determined response strategies as outlined in this OPEP.
- Ensure that the management of the response is consistent with the Commonwealth National Plan for Maritime Environmental Emergencies (National Plan), the Victorian SEMP, and the Victorian SEMP sub-plan: Maritime Emergencies (non-search and rescue) Plan, and the Australian Industry Cooperative Oil Spill Response Arrangements (AMOSPlan).
- Ensure effective integration and use of industry/government response efforts and resources.
- Ensure Emperor Energy has timely access to appropriately trained people and resources to effectively respond to and manage an oil spill response.

1.3. Scope

Emperor Energy has identified two potential hydrocarbon spill scenarios that have the potential to require a coordinated spill response, as outlined in this OPEP:

1. A vessel loss of containment resulting in the release of 280 m^3 Marine Diesel Oil (MDO) to the sea surface; and

2. A subsea spill from the Mobile Offshore Drilling Unit (MODU), the worst-case scenario being a total loss of well control (LOWC) resulting in the release of 55,256 m^3 of condensate.

Excluded from the scope of this OPEP are vessels transiting to or from the Operational Area (as described in the EP). These vessels are deemed to be operating under the Commonwealth *Navigation Act 2012* and not engaged in petroleum-related activities.

1.4. Spill Response and OPEP Structure

In the event of a hydrocarbon spill, the OPEP should be used as guidance to the spill response activities. See Figure 1-2 for the structure of the OPEP and sequence of response activities to follow in the event of a spill response.

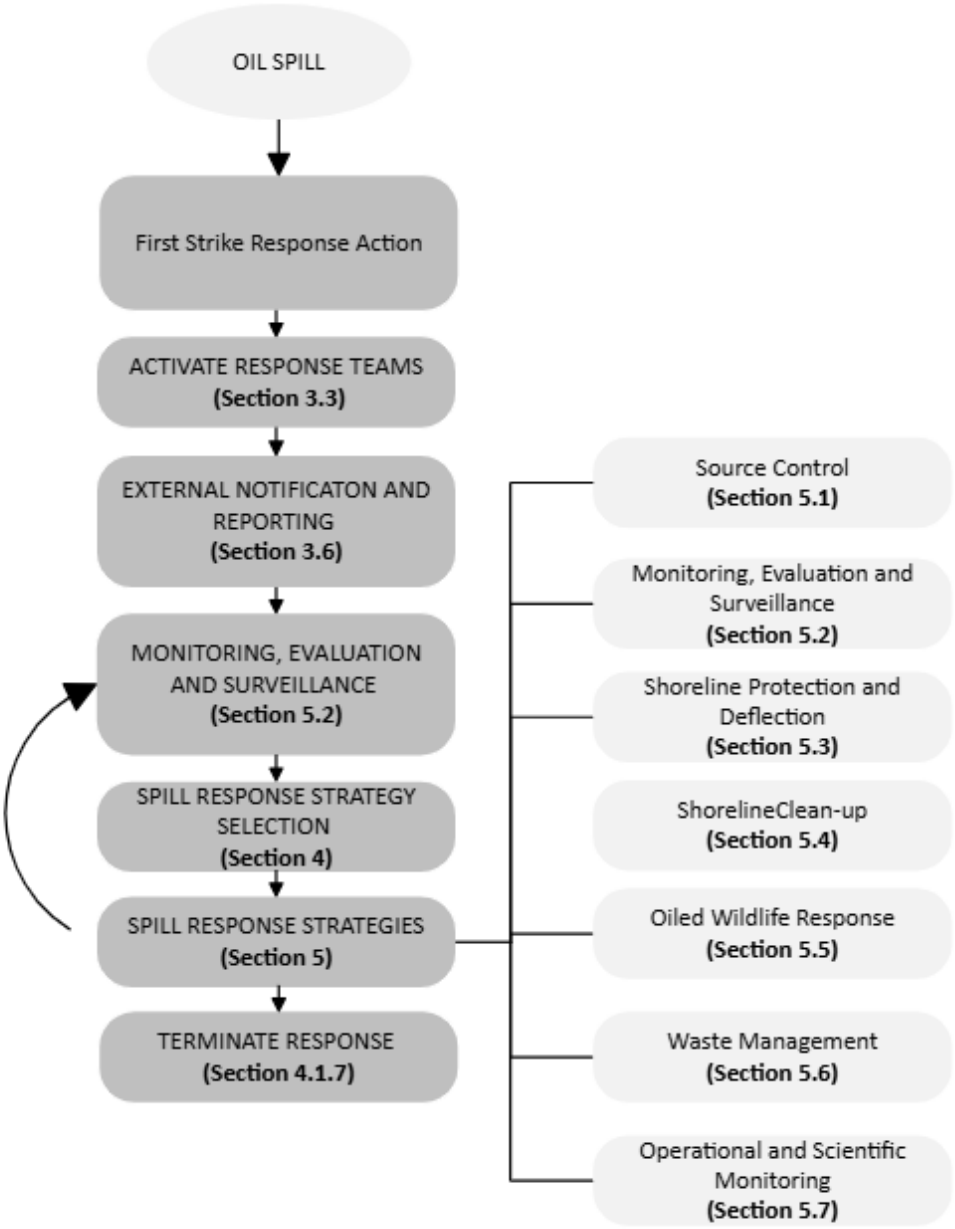

Figure 1-2 Spill Response Actions and Requirements

1.5. Response Documentation Interface

Emperor Energy will manage any incident resulting from its offshore petroleum activities in accordance with the Judith-2 Exploration Drilling Program Bridging Emergency Response Plan (ERP) which will be prepared prior to the commencement of the drilling activities. This plan will refer to this OPEP as the operational document for use in the event of an oil spill.

The interfaces of relevant documentation within Emperor, AGR and external oil spill response plans is described in Table 1-1.

Table 1-1: Response documentation interface

DOCUMENT	DESCRIPTION
National Plan for Maritime Environmental Emergencies (National Plan)	The umbrella contingency planning and response arrangement for Australia and is administered by the Australian Maritime Safety Authority (AMSA). The National Plan defines national arrangements, principles, and policies for responding to maritime emergencies.
Australian Industry Cooperative Oil Spill Response Arrangements (AMOSPlan)	Describes mutual aid arrangements of the petroleum industry coordinated by AMOSC. It outlines membership arrangements, activation procedures and interfaces with other plans.
Australian Maritime Safety Authority's Marine Pollution Response Plan	This plan is the operational response plan for the management of ship-source incidents.
Victorian State Emergency Management Plan (SEMP)	Contains provisions providing for the mitigation of, response to and recovery from emergencies, and specifies the roles and responsibilities of agencies in relation to emergency management (EM).
Victorian Maritime Emergencies (non-search and rescue) (MENSAR) Plan	This sub-plan exists to ensure that collaboration, co-operation and resources sharing is captured and agreed to by the stakeholders and a response to a complex maritime emergency will be a shared responsibility between the agencies. Serves the purposes of being the Victorian Marine Pollution Contingency Plan.
Victorian Emergency Animal Welfare Plan	To provide a coordinated approach to the management of animal welfare impacts as a direct result of an emergency incident in Victoria.
Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan)	The Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan) supports the National Plan for Maritime Environmental Emergencies (NatPlan) and the Tasmanian Emergency Management Arrangements (TEMA). Provides arrangements for responding to oil or chemical spills and maritime incidents within Tasmanian State Waters.
Tasmanian Oiled Wildlife Response Plan (WildPlan)	Outline the procedures, reporting structures, roles and guidelines for the rescue and rehabilitation of wildlife affected by an oil spill within Tasmanian waters.
NSW Coastal Waters Marine Pollution Plan	Outlines the arrangements to manage a marine oil or chemical spill and maritime incidents that could result in an oil or chemical spill into state waters of NSW.
NSW State Emergency Management Plan (EMPLAN)	Provides a coordinated and comprehensive approach to emergency management in NSW.
Agriculture and Animal Services Functional Areas (AASFA) Supporting Plan (NSW)	Supporting plan to the EMPLAN which describes the coordination arrangements for use of AASFA resources for prevention of, preparedness for, and recovery from impact and effects of an emergency.

DOCUMENT	DESCRIPTION
Judith-2 Exploration Drilling Program Environment Plan (EP)	Describes the petroleum activity, existing environment, risk assessment and environmental performance outcomes. Prepared to meet the OPGGS(E)R.
Judith-2 Exploration Drilling Program Bridging Emergency Response Plan (ERP)	The Bridging Emergency Response Plan provides the framework and requirements for incident management between Emperor Energy, AGR and the MODU Drilling contractor. The purpose of the plan is to control and mitigate damage and injury caused by a disaster and to provide a structured method of support, direction, and management at the site of an emergency or incident.
Emperor Energy Crisis Management Plan (CMP)	The CMP defines the organizational responsibilities, actions, reporting requirements and resources required to manage a crisis.
Judith-2 Exploration Drilling Program Well Operations Management Plan (WOMP)	Details well integrity aspects for Judith-2 and includes well management systems and source control emergency response overview. As accepted by NOPSEMA under the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011*.
Judith-2 Exploration Drilling Program Safety Case Revision (SCR)	Details the Major Accident Event (MAE) and Safety Critical Control details for the safety aspects for the Judith-2 Exploration Drilling Program. The document is prepared by AGR and the MODU Drilling Contractor and submitted by the MODU Drilling Contractor as the registered facility operator to NOPSEMA in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2023*.
Judith-2 Exploration Drilling Program Source Control Emergency Response Plan (SCERP)	The SCERP includes an initial investigation stage with provision for escalation including the mobilisation of a rig to undertake relief well activities. The SCERP provides the Source Control Branch within the Incident management Team (IMT) with guidance and checklists in the event of a LOWC to implement source control strategies.
Judith-2 Exploration Well Operational and Scientific Monitoring Bridging Implementation Plan (OSM-BIP)	The OSM-BIP describes a program of operational and scientific monitoring that will be enacted in the event of a worst-case discharge scenario. The OSM-BIP is the principal tool for determining the extent, severity, and persistence of environmental impacts from a marine hydrocarbon spill and inform remediation activities. The OSM-BIP has been developed in accordance with AEP's Joint Industry Operational and Scientific Monitoring Plan Framework (APPEA 2021). The OSM-BIP addresses the requirements of Regulation 22(1) and 22(2) of the OPGGS(E)R.
AGR Drilling ERP Plan	Emperor Energy has contracted AGR to provide integrated operations project management services for the activity, including emergency response and incident management support. AGR will supply the Drilling Supervisor (DSV) and the key positions within the IMT.

DOCUMENT	DESCRIPTION
	The AGR ERP describes their organisational responsibilities, actions, reporting requirements and resources required to manage crises and emergencies.
MODU Contractor Emergency Response Plan (ERP)	The ERP outlines the organizational responsibilities, actions, reporting requirements and resources required should an emergency unfold during routine and source control operations
Vessel and MODU SOPEP	A Ship Oil Pollution Emergency Plan (SOPEP) is required under the International Convention for the Prevention of Pollution from Ships (MARPOL), for the MODU and support vessels >400t. The SOPEP includes vessel specifications, procedures to follow for notification and spill response, and a list of spill equipment and locations.

2. INITIAL RESPONSE GUIDES

The following initial response guides (Table 2-1, Table 2-2, Table 2-3) include immediate actions to be undertaken following the detection of a spill from a vessel or a loss of containment incident from the MODU, the worst-case scenario being a LOWC resulting in a condensate release.

These initial response guides are intended as guides only and are not considered an exhaustive list of actions that will be undertaken – they are subject to change based on the specific parameters and conditions at the time of the incident.

The initial response guides are consistent with the strategic response priorities detailed in the National Plan and the Victorian SEMP and MENSAR Plan.

Human health and safety will remain the primary protection priority throughout a spill response.

2.1. Initial Response Guide – MDO Spill from Support Vessel

Table 2-1 Initial Response Guide – MDO Spill from Vessel

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
1	On discovery of a spill from the vessel – notify the Vessel Master.	Spill Observer	Immediate	SOPEP
2	Manage the safety of all personnel. Secure sources of ignition and alert all personnel (appropriate to the level of the spill).	Vessel Master	Immediate	SOPEP
3	If safe, stop the spill through source control actions: • If Level 1: Vessel Master to act as Incident Commander (IC) and refer to SOPEP. • If Level 2/3: Contact Incident Management Team (IMT) who will request IMT Leader assume role of Incident Commander, with Vessel Master becoming On-scene Commander (OSC). Assess incident and prevent further spillage if possible / safe.	Vessel Master	Immediate	SOPEP
4	Notify AMSA of spill incident (AMSA will act as Control Agency for all vessels spills in Commonwealth waters).	Vessel Master	As soon as practicable	SOPEP / OPEP

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
	Drilling Contractor/ Emperor Energy to maintain direct contact with AMSA and act as the Supporting Agency. Establish IC for incident.			
5	Determine spill parameters: • What is it – oil type/group/properties? • Where is it – latitude/longitude, leading edge (if known)? • How big is it - area/volume? • What is happening to it - status of release i.e., continuing or under control? • Weather conditions at site (wind/currents).	Vessel Master	As soon as practicable	SOPEP
6	Determine Spill Response Level required	Vessel Master	As soon as practicable	SOPEP
7	In the event of a Level 2/3 spill, deploy the oil spill tracking Buoy(s), following the deployment instructions.	Vessel Master	As soon as practicable	Section 5.2.2.4
8	Complete tasks outlined in Table 2-3– Initial Response Guide – IC and IMT.	Vessel Master	Refer to Table 2-3	Section 2.3
9	Continue to assess spill parameters - provide regular reports to relevant IC regarding appearance and behaviour of surface spill, weather (surface wind speed, direction, sea state, current speed, and direction), tidal conditions and any changes to release status.	Vessel Master	Ongoing until terminated	SOPEP

2.2. Initial Response Guide – Spill from MODU (LOWC)

Table 2-2 Initial Response Guide – LOWC from MODU

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
1	On discovery of a hydrocarbon release – immediately notify the Offshore Installation Manager (OIM).	Spill Observer	Immediate	MODU ERP Judith-2 Bridging ERP
2	Activate MODU Emergency Response Plan (ERP), Judith-2 Bridging ERP and Source Control Emergency Response	OIM	As soon as practicable	MODU ERP Judith-2 Bridging ERP

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
	Plan (SCERP) and response actions stated in this OPEP. Notify AGR Drilling Supervisor. Conduct internal notifications.			Judith-2 SCERP
3	Manage the safety of all personnel. Secure sources of ignition and alert all personnel (appropriate to the level of the spill).	OIM	Immediate	MODU ERP Judith-2 Bridging ERP
4	If safe, stop the spill through source control actions. Assess incident and prevent further spillage if possible / safe.	OIM	Immediate	MODU ERP Judith-2 SCERP Section 5.1
	Determine initial hydrocarbon release parameters: • What is it - oil type/ group/ properties? • Where is it - latitude/ longitude, leading edge (if known)? • How big is it - area/ volume? • What is happening to it - status of release i.e., continuing or under control? • Weather conditions at site (wind/ current)? Issue a Marine Pollution Report (POLREP) to AMSA.	OIM or delegate	As soon as practicable	Appendix A (SITREP & POLREP)
6	Determine Spill Response Level required: Level 2 or 3: Contact AGR Drilling Superintendent and confirm they will assume role of Incident Commander, with the AGR Drilling Supervisor assuming role of On-scene Commander (OSC) in consultation with the Rig OIM.	AGR Drilling Supervisor /OIM	ASAP but within 30 minutes of notification.	Section 3.1
7	Issue External Notifications	OSC	As required by each external organisation	Section 3.6

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
	Initiate Spill Monitoring, Evaluation & Surveillance: • Deploy the Tracking Buoys following the deployment instructions; • Alert support vessels for stand-by; • Alert supply base for stand-by; and • Alert helicopters provider for stand-by.	OSC	As soon as practicable	Section 5.2
9	Complete tasks outlined in Table 2-3– Initial Response Guide – IC and IMT.	OSC	Refer Table 2-3	Section 2.3
10	Initiate Source Control – activate Source Control Emergency Response Plan (SCERP).	IMT IC	As soon as practicable	Section 5.1
11	Provide regular SITREPs to the IMT Leader (Incident Commander) (as agreed) regarding the appearance and behaviour of surface spill. and weather (surface wind speed, direction, sea state, current speed and direction) and tidal conditions.	OSC / OIM or delegate	Ongoing as agreed with OSC	Appendix A

2.3. Initial Response Guide – Incident Commander and IMT

Table 2-3 Initial Response Guide - IC and IMT

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
1	Upon notification of spill from site, AGR Incident Commander (IC) to confirm roll within the on-site team. Vessel Master / AGR Drilling Supervisor to assume role of On-scene Commander (OSC) in consultation with the MODU OIM and the IC. The Drilling Supervisor will maintain contact with the IMT on the status of the spill.	IC.	On notification.	Section 3.3

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
2	Notify IMT members to standby or mobilise to Incident Command Centre (ICC) and set up Incident Control Room and advise Emperor Energy Duty Crisis Management Team (CMT) Manager.	IC.	90 minutes from notification.	Section 3.3
3	Establish a reliable communications line with the incident site / On-scene Commander.	IC.	Following notification.	Judith-2 Bridging ERP
4	Confirm with On-scene Commander: • Muster numbers and status of personnel. • POLREP showing current situation with release: o Shutdown and isolation; o Continuing or under control; o Material and quantity released; o Agreed SITREP frequency.	IC.	90 minutes from notification.	Judith-2 Bridging ERP
5	Set up regular briefing of Emperor Energy Duty CMT Leader	IC.	ASAP following notification from OSC.	Judith-2 Bridging ERP
6	Undertake regulatory internal notifications and other external stakeholder notifications (as required).	IC or delegate.	As per organisations requirements.	Section 3.4
7	Implement the Judith-2 Exploration Drilling Program Bridging ERP. Establish Incident Command Post.	IC.	90 minutes from notification.	Judith-2 Bridging ERP
8	Activate MES tactics. Determine spill trajectory – weather conditions and perform initial vector analysis: • Where is it going - Weather conditions/ currents/ tides?	IC / IMT Planning Section.	Within 90 minutes from IMT activation.	Section 5.2

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
	• What is in the way - Resources at risk? • When will it get there - Weather conditions/ currents/ tides?			
9	Based on the preliminary spill assessment provided by OIM/ Vessel Master and operational monitoring data: • Assess response required; and • Implement spill response commensurate to the size and level of risk.	IC.	90 minutes from notification.	Section 3.1 Section 4
10	Activate Judith-2 Source Control ERP: • Engage well control specialists and prepare for mobilisation; and • Initiate AEP MoU: Mutual Assistance to facilitate relief rig.	Operations Section Chief or delegate.	Refer to 5.2.	Section 5.2
11	If Vic DTP, Tas EPA, NSW Maritime or AMSA is to assume control as Control Agency, assist in completion of Incident Control Handover Checklist.	IC.	As required.	Section 3.6.2
12	Notify oil spill response contractor(s) and determine level of support required based on the escalation potential of the incident: • Activate AMOSC to support the response, if appropriate; and • Engage vessel contractor to identify additional support / surveillance vessels.	IC or delegate.	As soon as practicable.	Section 3.4
13	Prepare for potential evacuation of personnel from the incident site.	IC.	Refer to Bridging ERP	Judith-2 Bridging ERP

STEP	ACTION	RESPONSIBILITY	INDICATIVE TIMING	ADDITIONAL INFORMATION
14	Establish spatial context of the spill: • Obtain all necessary maps/ modelling from GIS software and establish sensitivity mapping; and • Identify protection priorities and confirm response options via NEBA.	Planning Section Chief (or delegate).	90 minutes from notification	Section 4.1.4 Section 4.1.5
15	Create initial incident action plan (IAP) (as required) in consultation with AMOSC (if required) and Control Agency (i.e. Vic DTP / Tas EPA / NSW Maritime / AMSA, if applicable).	IC.	Ongoing	Section 4.2
16	Activate the Judith-2 Exploration Well OSM-BIP to monitor effectiveness of response strategies and potential impacts from spill and response	Planning Section Chief (or delegate).	Within 6-12 hours of IMT activation	Section 5.7

3. SPILL RESPONSE FRAMEWORK

3.1. Spill Classification

The National Plan has a three-level classification system for oil spill incidents, based on the resources required to respond, the size and/or complexity of the incident. This assists in guiding agency readiness levels, incident notifications, response actions and potential response escalations. Jurisdictional Authority and Control Agencies. Table 3-1 demonstrates the oil spill classification that has been adapted from the National Plan.

Table 3-1: Spill Level Classification

CHARACTERISTIC	LEVEL 1	LEVEL 2	LEVEL 3
MANAGEMENT:			
Jurisdiction	Single jurisdiction	Multiple jurisdiction	Multiple jurisdictions including international
No. of agencies	First Response Agency	Routine multi-agency response	Agencies from across government and industry
Incident Action Plan	Simple/Outline	Outline	Detailed
Resources	Onsite resources required only	Requires intra-state resources	Requires national or international resources
TYPE OF INCIDENT:			
Type of response	First Strike	Escalated	Campaign
Duration	Single shift	Multiple shifts - days to weeks	Extended response - weeks to months
Hazards	Single Hazard	Single Hazard	Multiple Hazards
RESOURCES AT RISK:			
Human	Potential for serious injuries	Potential for loss of life	Potential for multiple loss of life
Environment	Isolated impacts with natural recovery in a few weeks	Significant impacts, recovery may take months. Remediation required.	Significant area, recovery may take months. Remediation required.
Wildlife	Individual fauna	Groups of fauna or threatened fauna	Large numbers of fauna
Economy	Business level disruption	Business failure	Disruption to a sector
Social	Reduced services	Ongoing reduced services	Reduced quality of life
Infrastructure	Short term failure	Medium term failure	Severe impairment

CHARACTERISTIC	LEVEL 1	LEVEL 2	LEVEL 3
Public Affairs	Local and regional media coverage	National media coverage	International media coverage

3.2. Statutory Agency and Control Agency

The Statutory Agency, otherwise known as the Jurisdictional Authority, refers to the Agency that has the responsibility to verify that an adequate spill response plan is prepared and, in the event of an incident, that a satisfactory response is implemented.

The Control Agency, also known as the Combat Agency, for an oil spill occurring in marine waters is responsible for the control of response activities, including appointing the Incident Controller. The Control Agency may have additional arrangements in place for another for another government agency or organisations to provide oil spill response services during an emergency.

As stated within the National Plan (AMSA 2020), the titleholder remains accountable for spills relating to its Petroleum Activities, however, the nominated Control Agency and Statutory Agency assigned to a spill depends on the specific location and spill source. Table 3-2 provides a summary of the relevant Control Agency and Statutory Agency for spills occurring within Victorian State and Commonwealth waters.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has responsibility for safety, structural (well) integrity and the environmental management of the offshore petroleum industry within Commonwealth waters in accordance with the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) and associated regulations. Therefore, NOPSEMA has the regulatory responsibility for any petroleum activity within Commonwealth waters covered in this OPEP.

Table 3-2: Summary of Regulatory Responsibilities (Statutory and Control Agencies)

		SPILL SOURCE			
		VESSEL		PETROLEUM ACTIVITY	
SPILL LOCATION	SPILL LEVEL	LEVEL 1	LEVEL 2/3	LEVEL 1	LEVEL 2/3
State Waters (<3nm from the coast)	Statutory Agency	Vic Department of Transport and Planning (DTP)/ Tas Environment Protection Authority (EPA) / NSW Maritime		Vic DTP/ Tas EPA / NSW Maritime	
	Control Agency	Vessel Owner/ Operator	Vic DTP/ Tas EPA/ NSW Maritime / Relevant Port Authority*	Titleholder	
Commonwealth Waters (>3nm from the coast)	Statutory Agency	AMSA**		NOPSEMA	
	Control Agency	Vessel Owner/ Operator	(AMSA)	Titleholder	

*Within Port waters.
**Within the 500m MODU exclusion zone the statutory agency will be NOPSEMA

3.2.1. Cross-jurisdictional Response

In the event of a spill originating in Commonwealth waters, and migrating into Victorian, Tasmanian or NSW State Waters, the relevant State authority as outlined above will assume the role of the Control Agency for the response activities occurring within these waters following a specified handover from the established Authority/Agency for Commonwealth Waters. The management and coordination of cross-jurisdictional incidents will follow the National Plan Coordination of Cross-border Incidents Guideline (NP-GUI-023) (AMSA 2017).

To facilitate effective coordination in the event of a Level 2/3 spill, a Joint Strategic Coordination Committee (JSCC) will be established. The JSCC will be jointly chaired by Control Agency to agree incident coordination arrangements for the entire incident and a senior representative from AMOSC. The JSCC will be administered by the relevant State agency and the inaugural JSCC meeting will be convened by the Control Agency once both the titleholder and State agency formally transfer the role of control agency. In this instance the titleholder should work in collaboration with the State agency, sharing response resources and providing qualified personnel to the State Control agency IMT. As the relevant jurisdictional authority in commonwealth waters, NOPSEMA may opt to participate in the JSCC as they see fit.

In a cross-jurisdictional marine pollution incident, the State agency and Emperor Energy will each deploy an Emergency Management Liaison Officer (EMLO) from AMOSC to the corresponding IMTs for effective communication between the two IMTs.

A lead IMT may be adopted should both Emperor Energy and the State agency establish separate IMTs/IMTs to control response activities in their respective area of control. This measure will facilitate greater coordination and efficiency of effort for some functions that apply across the entire incident response.

3.3. Communication and Integration with Government Organisations

For a spill originating from MODU operations, the established IMT will be responsible for both internal (i.e., CMT, Emergency Response Team/Source Control Team) and external communications related to the spill response (e.g., AMOSC, OSRL, DTP etc). The Emperor Energy CMT is responsible for external communications related to government regulatory bodies, media liaison and related stakeholders. Dependent on the size of the spill and jurisdiction, Emperor Energy may have support from a range of mutual support agencies and organisations, of which some of the key agencies and organisations are outlined in the following sub-sections.

For a spill originating from a vessel within the operational area (Commonwealth waters), AMSA will assume control of the incident and response in accordance with AMSA's Marine Pollution Response Plan. The vessel master will be responsible for contacting AMSA, implementing the source control actions, and providing direct support throughout the response.

3.3.1. Australian Maritime Safety Authority (AMSA) and NatPlan

The National Plan for Maritime Environmental Emergencies (NatPlan) is managed by AMSA and is Australia's key marine emergency contingency and response plan. NatPlan sets out the national arrangements, policies, and roles and responsibilities of states, territories, and industry in managing maritime environmental emergencies. NatPlan integrates Commonwealth and State government oil spill response framework to facilitate effective response to marine pollution incidents. AMSA works with State governments (who manage the equivalent State sub-plans that integrate into the NatPlan), shipping, petroleum, chemical industry and emergency services, to optimise Australia's marine pollution response capability.

AMSA can be activated through the NatPlan, via the provision of a POLREP, if the Control Agency for any spill type requires additional support and/or resources to mitigate the impacts of a spill incident.

In the event of a vessel spill within Commonwealth waters AMSA will assume the control of the response in alignment with AMSA's Marine Pollution Response Plan and the National Plan (AMSA 2020). The vessel master should notify AMSA immediately via the Rescue Coordination Centre (RCC) of all ship-source spill incidents. AMSA manages the trained National Response Team (NRT) and the National Response Support Team (NRST) trained to provide support to control agencies in the event of a major marine oil pollution incident. All resources under the National Plan, including the NRT and NRST, will be available through request to AMSA under the arrangements of the MoU.

3.3.2. Victorian Arrangements

3.3.2.1. Victoria Department of Transport and Planning (Vic DTP)

Hydrocarbon spill incidents which occur within Commonwealth waters and have the potential to impact Victorian State waters, the Department of Transport and Planning (DTP) (Victoria) will assume the Control Agency role over the impacted area in State Waters. The established Control Agency in Commonwealth Waters will remain responsible for managing the spill outside Victorian coastal waters in consultation with DTP.

The Victorian Maritime Emergencies (non-search and rescue) (MENSAR) Plan State Hazard Plan – prescribes the emergency management arrangements for preparedness and response to marine pollution from vessels, offshore petroleum activities and other sources in Victoria.

The State Controller Maritime Emergencies (SCME) has the overall responsibility for ensuring there is adequate response to spill incidents in State waters, including marine pollution resulting from a petroleum activity and from a vessel originating in Commonwealth waters. In these circumstances, the provision of an adequate response will be primarily achieved through the coordinated employment of the titleholder's resources. The SCME provides overall strategic management response and executive level support and guidance to the Incident Controller (IC). DTP's Preparedness and Coordination team will assist the SCME and DTP to fulfil their statutory obligations in response to a marine pollution incident in state waters.

Where state waters are impacted by cross-jurisdictional marine pollution incidents, DTP will only assume the role of control agency for response activities occurring in Victorian state waters, in accordance with the MENSAR Plan. In this instance the titleholder should work in collaboration with DTP, sharing response resources and providing qualified personnel to the DTP IMT. It is an expectation that Emperor Energy will conduct initial response actions in state waters as necessary in accordance with this OPEP and continue to manage those operations until formal incident control can be established by Victorian DTP.

Following the establishment of incident control by DTP, the titleholder is expected to continue to provide planning and resources in accordance with the OPEP. This includes response assets and contracts specified in the OPEP, such as those pertaining to equipment, waste management, transport and personnel (operational and IMT staff) as well as their arrangements with third-party response service providers (e.g. Australian Marine Oil Spill Centre (AMOSC), etc.).

Emperor Energy and DTP will establish separate IMTs to manage response activities in Commonwealth and State waters, respectively, with one of the IMTs adopting the role of 'Lead IMT' for some response functions. DTP and titleholder will each deploy an Emergency Management Liaison Officer (EMLO) to corresponding IMTs to facilitate greater communication, coordination and efficiency between the two IMTs during the response. During an incident, any matters pertaining to this arrangement that can't be addressed through

direct communications between the two IMTs can be referred to the JSCC. Where resolution of a compliance matter is not possible, it will be referred to NOPSEMA.

3.3.2.2. Victoria Department of Energy, Environment and Climate Action (DEECA)

If an incident affecting wildlife occurs in Commonwealth waters close to Victorian State waters, the Control Agency may request support from Department of Energy, Environment, and Climate Action (DEECA) (formerly DEWLP) to assess and lead a wildlife response. The Victorian Emergency Animal Welfare Plan (VEAWP) provides principles and policy for use in emergency planning, response, and recovery phases for addressing animal welfare in an emergency. The DEECA State Agency Commander should be notified in the event of wildlife impacted or impeding impact from a hydrocarbon event.

The VEAWP is a joint responsibility of the Department of Energy, Environment, and Climate Action (DEECA) and the Victoria Department of Jobs, Skills, Industry and Regions (DJSIR). DEECA is responsible for coordination of activities relating to wildlife during emergencies, supported by Parks Victoria and Phillip Island Nature Park, and DJSIR is responsible for the coordination of activities relating to all animals other than wildlife.

The VEAWP rescue plan for marine pollution emergencies provides safe procedures and guidelines for the rescue, treatment and rehabilitation of wildlife affected by marine pollution. The plan specifies the operational structure and responsibilities in dealing with affected wildlife. The main aim of rescue operations is to safely return as many animals as possible to the wild.

Response plan activities include the search and rescue of affected wildlife, triage, rehabilitation and post-spill monitoring of populations and habitat. Impacted wildlife is generally treated at the Phillip Island Nature Park, Victoria, or by other wildlife rehabilitators with relevant experience.

3.3.3. Tasmanian Arrangements

3.3.3.1. Tasmania Environment Protection Authority (Tas EPA)

As per the Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan), the Tasmanian Environmental Protection Authority (EPA) is the advisory agency and management authority for prevention and mitigation, preparedness, and response for marine pollution incidents within Tasmania under the management of the Tasmanian Emergency Management (TEM).

Hydrocarbon spill incidents which occur in Commonwealth waters and have the potential to impact Tasmanian State waters, EPA Tasmania will assume the Control Agency role for the impacted area in State waters while the Commonwealth Waters Control Agency will remain responsible for managing the spill outside Tasmanian coastal waters in consultation with the State. If the marine spill incident goes outside the scope, authority and/or capacity of the EPA, TEM emergency management arrangements will be applied.

When under direction of Tasmania EPA, an Emergency Management Liaison Officer (EMLO) from Emperor Energy, shall be allocated to Tasmania EPA.

3.3.3.2. Tasmania Department of Natural Resources and Environment (NRET)

The Tasmanian Oiled Wildlife Response Plan (WildPlan) is administered by Wildlife Health and Marine (WHAM) division of the Department of Natural Resources and Environment Tasmania (NRET) (formerly DPIPWE) and outlines priorities and procedures for the rescue and rehabilitation of oiled wildlife within Tasmania.

3.3.4. New South Wales Arrangements

3.3.4.1. New South Wales Roads and Maritime Services (NSW Maritime)

Hydrocarbon spill incidents which occur within Commonwealth waters and have the potential to impact New South Wales (NSW) State waters, NSW Maritime or Port Authority of NSW will assume the Control Agency role over the impacted area in State Waters. The established Control Agency in Commonwealth Waters will remain responsible for managing the spill outside NSW coastal waters in consultation with the State Control Agency.

Whilst a terminal operator is expected to respond to Level 1 incidents within State Waters; the Port Authority of NSW, or NSW Maritime will be the Control Agency for all incidents in State waters in NSW (NSW Government. 2022). NSW Maritime would assume responsibility for responding to the maritime incident and handover to Port Authority of NSW only if the Port of Eden is impacted. The Marine Pollution Controller will consult with the relevant Port Authority or NSW Maritime and determine which agency will assume the Control Agency role (known as Combat Agency in the NSW plan).

Emperor Energy shall conduct initial necessary response actions within NSW State waters, in accordance with this OPEP, and continue to manage response operations until a formal handover is conducted following the establishment of the NSW Maritime Control Agency. An Emergency Management Liaison Officer (EMLO), provided by Emperor Energy, will be mobilise to the State incident control centre.

As stated within the New South Wales (NSW) Coastal Waters Marine Pollution Plan (NSW Government 2022) the NSW coastline has been divided in distinct areas and assigned either a specific Port Authority or the NSW Maritime to be responsible as the Control Agency for a spill within that area (Table 3-3).

Figure 3-1 shows the maritime regions and their boundaries for the purposes of notification and response. In cases where oil or chemical pollutants also impact an adjoining area of State waters or the shoreline, the Agency that took on the initial role will remain the acting Control Agency for the entire incident unless there is a mutual agreement to hand over the role.

Table 3-3: NSW State waters division of responsibility for response to hydrocarbon spills (NSW Government, 2022)

LOCATION OF INCIDENT	CONTROL AGENCY
From the QLD border to Fingal Head (Port Stephens) excluding the Port of Yamba	NSW Maritime
Port of Clarence River (Yamba) (Port Waters)	Port Authority of NSW (Newcastle)
Fingal Head to Catherine Hill Bay, including: • Port of Newcastle • Sydney Harbour • Botany Bay • Port Kembla	Port Authority of NSW (Newcastle)
Gerroa to the Victorian border, excluding the Port of Eden	NSW Maritime
Port of Eden	Port Authority of NSW
Inland waterways, rivers, estuaries	Fire and Rescue NSW
Australian Territorial Sea and High Sea (outside 3 nautical mile State limit)	AMSA
Declared naval waters	Royal Australian Navy

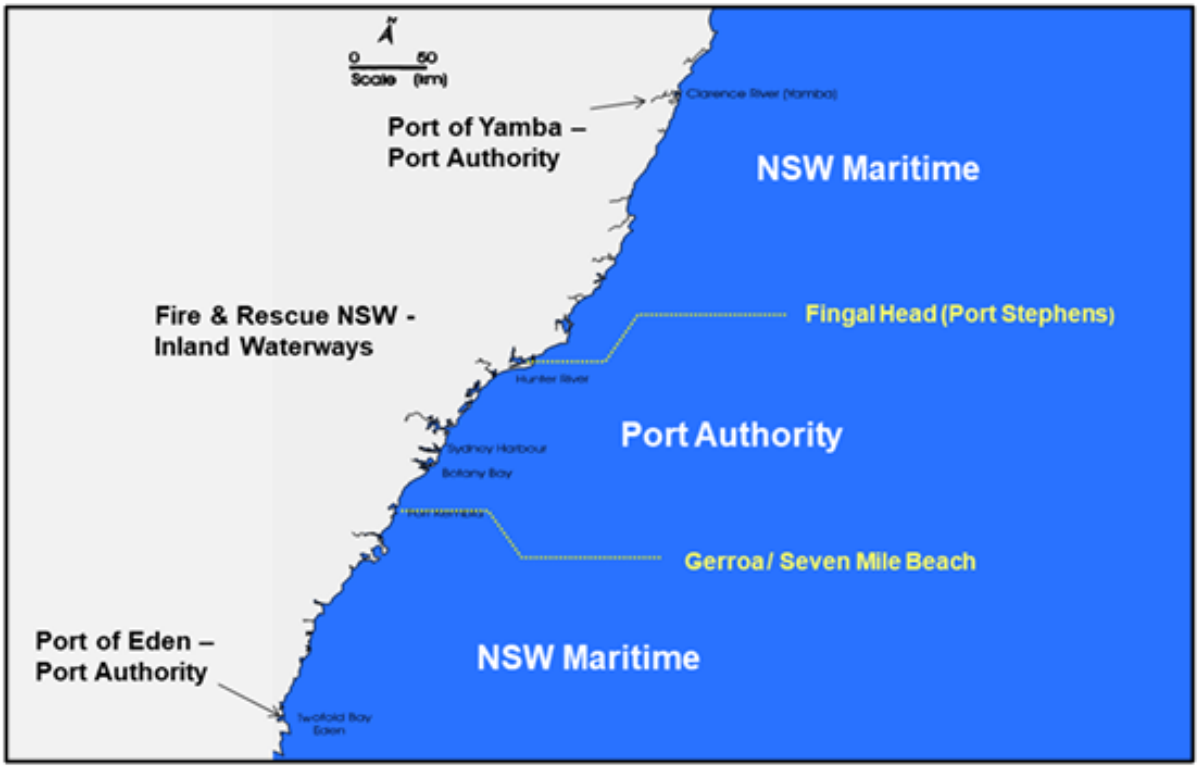

Figure 3-1: Regional boundaries for response agencies. Source: NSW Coastal Waters Marine Pollution Plan (NSW Government, 2022)

3.3.4.2. Port Authority of New South Wales (NSW)

The NSW Coastal Waters Marine Pollution Plan and the Port Safety Operating License (PSOL) issued by the portfolio minister to the Port Authority of NSW outlines the division of responsibility for Control Agencies responding to oil and chemical spills. Table 3-3 summarises the division of responsibility for Control Agencies for the NSW coastline.

The PSOL requires the Port Authority of NSW to respond to maritime incidents in the major ports and assigned area of State waters on behalf of the NSW government. Additionally, the Port Authority of NSW as the manager of the regional ports of Eden and Yamba also has responsibility for responding to maritime incidents in those Port waters (Table 3-3).

In the event of a place of refuge is requested NSW Maritime will assume the combat agency role until a place of refuge is granted. At that time control of the incident may be transferred to the Port Authority of NSW as the designated maritime incident control agency (NSW Government, 2022).

3.3.4.3. New South Wales Department of Primary Industries (NSW DPI)

The NSW DPI is responsible for supporting agencies to manage the impact of emergencies to agriculture, fisheries, companion and commercial animals under the Coastal Waters marine Pollution Plan (NSW Government, 2022). NSW DPI has a MOU with multiple organisations that will provide animal services resources to assist in an emergency response under the coordination of NSW DPI.

The DPI is appointed the Agriculture and Animal Services Functional Area (AASFA) to be responsible for activating the Agriculture and Animal Services Functional Area Supporting Plan, risk assessment, notification

of key stakeholders, coordinate rescue, evacuation, emergency care of animals and the assessment, humane destruction, and providing a Liaison Officer upon request.

3.3.4.4. New South Wales Environment Protection Authority (NSW EPA)

The NSW EPA is the coordinating agency for the Environmental Services Functional Area (EnvSFA). The EnvSFA is responsible for providing advisor(s) to give expert scientific/technical advice and/or environmental personnel to support the response for protecting the environment. This may include assistance with environmental impacts, identification of hazardous material, provisions or sourcing environmental monitoring equipment, supporting emergency wildlife response, advice for clean-up and disposal of hazardous waste, suggestions of agencies to involve, and the provision of a Liaison Officer upon request.

3.3.5. Department of Industry, Science and Resources (DISER)

The Department of Industry, Science, Energy and Resources (DISER) will be the lead Commonwealth Agency for the provision of strategic oversight and Commonwealth government support to a significant offshore petroleum incident (Level 2/3). DISER will be notified by NOPSEMA of a significant oil pollution incident and under the Offshore Petroleum Incident Coordination Framework will stand up the Offshore Petroleum Coordination Committee (OPCC). The OPCC will provide Commonwealth strategic advice and support to the incident. To facilitate information between the response IMT and OPCC, a Liaison Officer/s will be deployed from DISER to the response IMT. For incidents that are classified at a greater level than Significant (i.e., Crisis level), a whole of government crisis committee will be formed under the Australian Government Crisis Management Framework to provide strategic advice and support and the Offshore Petroleum Incident Coordination Committee will not be convened, although DISER will remain as the lead agency.

3.4. Additional Support from External Organisations

In the event of a large spill requiring resources exceeding those of the Emperor Energy organisation, additional personnel and resources will be obtained from:

- Third party contract services and agency hire.
- Industry organisations (e.g., AMOSC).
- AEP Mutual Aid MoU.

Below is a (non-exhaustive) list of all contract companies and organisations that may be involved in the establishment and execution of the response. Based on situational information during the response, additional resources will likely be required and directed by the Control Agency in charge.

3.4.1. Australian Marine Oil Spill Centre (AMOSC) and AMOSPlan

In the event of an emergency, Emperor Energy will gain access to AMOSC's Level 2/3 oil spill response equipment and response personnel, through AMOSC associate membership subscription for spill response, as stated within the AMOSPlan. The AMOSPlan outlines the Australian industry cooperative arrangements in a series of international agreements and relationships designed to support the petroleum industry during a Level 3 response. Activation of the AMOSPlan provides access to AMOSC's equipment, technical advice and support, AMOSC personnel, and Core Group personnel (consisting of AMOSC trained personnel from other member companies). Additionally, AMOSC is a member of the Global Response Network.

Activation of the AMOSPlan during an oil spill response is via AMOSC's 24/7 Duty Officer, who will provide the initial point of contact for oil spill responses that require AMOSC assistance.

3.4.2. Australian Energy Producers (AEP)

AEP (formerly APPEA) is the peak national body representing Australia's oil and gas exploration and production industry. It has about 60 full member companies, and about 140 associate member companies. Emperor Energy is an Associate Member. Emperor Energy will engage with other AEP members via a signed Mutual Aid Memorandum of Understanding (MoU) and source assistance from nearby operators.

3.5. Emperor Energy Incident Command Framework

3.5.1. Incident Command Overview

Emperor Energy's incident command framework reflects the Australasian Inter-Service Incident Management System (AIIMS) and consists of key roles required to effectively coordinate and execute a response. For a Level 2/3 spill incident occurring from the MODU during Judith-2 Exploration Drilling operations the following teams will need to be activated:

- Emperor Energy Crisis Management Team (CMT).
- Incident Management Team (IMT), including the Source Control Branch.
- On-site Emergency Response Team (ERT).

Figure 3-2 shows the arrangement between the CMT, IMT and ERT. The Joint Strategic Coordination Committee (JSCC) arrangements has been discussed in Section 3.2.1.

The initial priority of spill response to a Level 2/3 incident is the establishment of the ERT, IMT IC, IMT and an incident command centre (ICC) to ensure the response can be successfully executed.

Involvement of the Emperor Energy CMT will be dependent on the type and severity of the spill and the arrangements that Emperor Energy has in place during an incident.

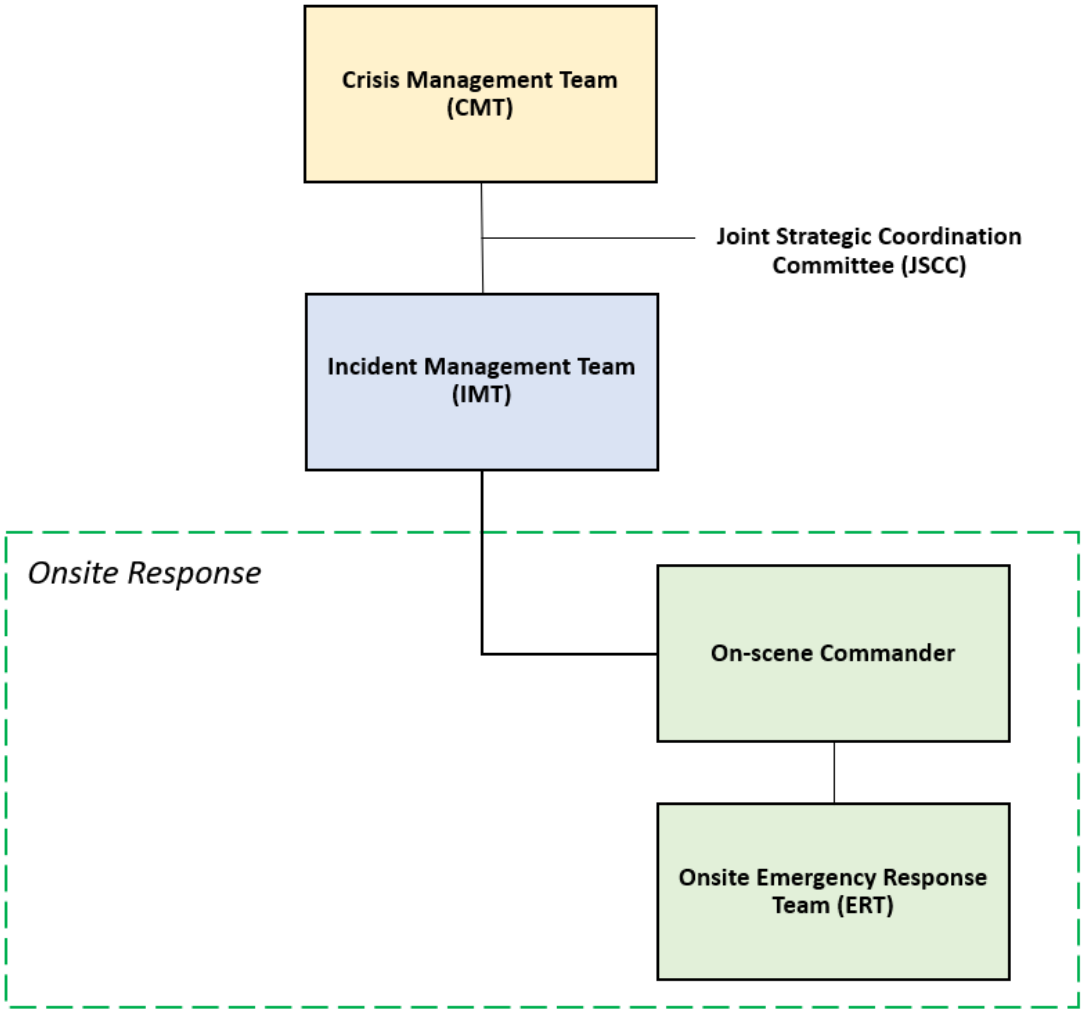

Figure 3-2: CMT, IMT and ERT arrangements

3.5.1.1. CMT Roles and Responsibilities

The Emperor Energy CMT typically comprises senior executives representing the major areas of the Emperor Energy business. The core CMT roles and responsibilities have been summarised in (Table 3-4Table 3-6).

The CMT Leader will activate support as required to assist with legal and media issues. The focus of the CMT includes:

- supporting the IMT to contain an incident
- communicating with all relevant stakeholders and managing the demand for information
- strategic planning of control and recovery processes.

Table 3-4: Core CMT Functions

SUB-FUNCTION	ROLES AND RESPONSIBILITIES
CMT Lead	Overall responsibility for management of the CMT including overall responsibility for internal and external communications to stakeholders. Provides supports to the IMT IC to provide safe and efficient response structure and organisation.
CMT Administration Officer	The CMT Admin Officer is responsible for maintaining the readiness of the CMT Room, ensuring IT systems are functional and relevant documentation is available including CMT contact registers
IMT Liaison Officer	External/ Government/ stakeholder affairs are managed. Ensures key stakeholders (government, regulatory and community) are informed of the incident and have their concerns acknowledged and addressed by the response organisation. Provide liaison personnel in the event that a State Control Agency IMT is required throughout the response.
Stakeholder and Media Manager	Develops messaging and manage external information flows to stakeholders and members of the public. Relevant and timely public and stakeholder information distributed across all relevant platforms.
CMT Administration Officer	Initial set-up of the CMT room, perform scheduled checks on the CMT room IT functionality, and provide 24/7 IT support to the CMT through the management of incidents.
Finance Manager	Financial notifications, provision of adequate funds, advice on financial impacts.
Insurance Broker	Provide support of any incident where insurance cover may need to be accessed.

3.5.1.2. IMT Roles and Responsibilities

The core IMT roles and responsibilities have been summarised in Table 3-5. Further details on all roles, including the peak capability for the IMT response structure, is provided in Appendix B. The Judith-2 Exploration Drilling Program Source Control Emergency Response Plan (SCERP) provides details on the source control procedures and plans developed for the activities covered within this OPEP. Figure 3-3 describes the Emperor Energy IMT Structure.

Table 3-5: Core IMT Functions

SUB-FUNCTION	ROLES AND RESPONSIBILITIES
Incident Control (IC)	Provides the direction for the overall spill response objections and strategies. Ensures a response is put in place that meets the requirements of Judith-2 OPEP (EPO's & EPS). People and process in place that meets the above. Safe and efficient response structure and organisation.
Safety Officer	Development and implement a plan that assesses and manages the safety risk of the response. Ensures safety risks are assessed and mitigation plans/ processes in place.

SUB-FUNCTION	ROLES AND RESPONSIBILITIES
External Agency Liaison Officers	External/ Government/ stakeholder affairs are managed. Ensures key stakeholders (government, regulatory and community) are informed of the incident and have their concerns acknowledged and addressed by the response organisation. Provide liaison personnel in the event that a State Control Agency IMT is required throughout the response.
Planning Section Chief	Drives the planning process that develops the IAP. Tracking resources. Oversees the Environment, Situation Units, Forecasting and OSM functions. Analysis of the response and planning that fits best the scenario (oil type, weather, fates, locations, sensitivities), to mitigate the consequences most effectively.
Operations Section Chief	Develops tactics to execute strategies in the field; run the operations in the field. Provide technical input to the production of the next operational period IAP. Draft the daily operational orders for each field team. Provide tech input to the safety plans. Runs the current operations in the field – the execution of the IAP for that operational period.
Source Control Team Lead	The Judith-2 Exploration Drilling Program Source Control Emergency Response Plan (SCERP) provides details and guidance on emergency well control management for the activities covered within this OPEP. It covers the activities to be carried out to assess the well control and to plan and execute appropriate response measures to regain control of and secure the well.
Logistics Section Chief	Acquires resources, operational locations and materials that match the operational need, as sought by AMOSC and RPS APASA, and WWC if needed. 'For-purpose' resources are acquired and deployed as needed, consistent with the IAP.
Finance & Administration	Tracks all costs and provides financial oversight consistent with the control agency requirements. Financial and administrative management process in place for the response.

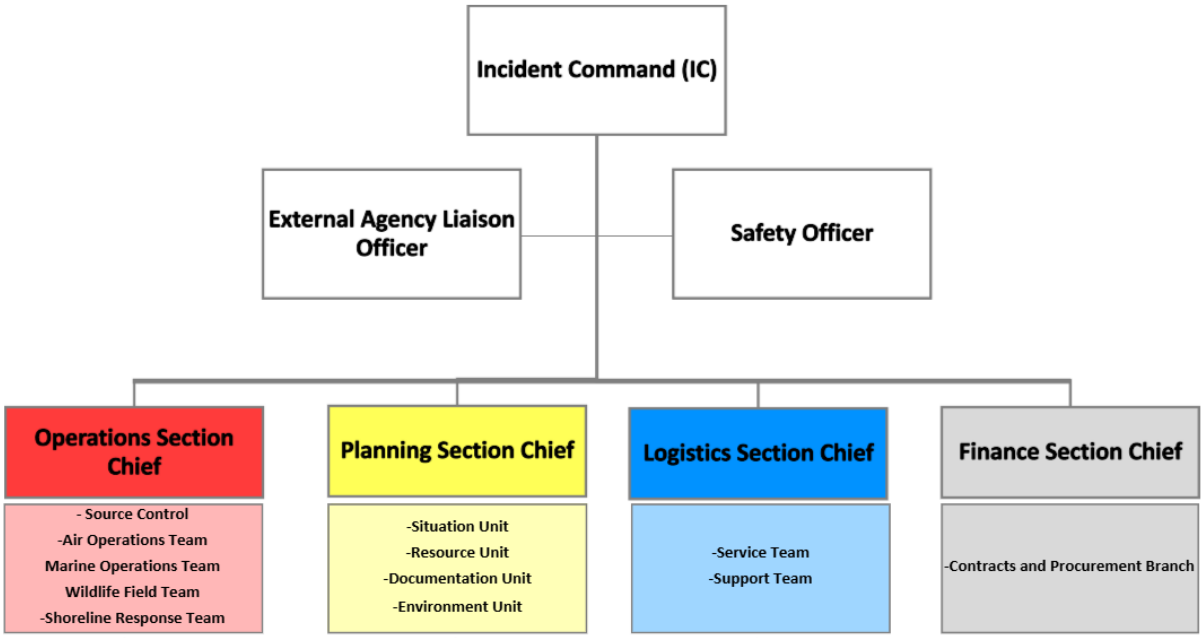

Figure 3-3: Emperor Energy Judith-2 Incident Management Team (IMT) Structure

3.5.1.3. ERT Roles and Responsibilities

The IMT will provide support to the on-site ERT. The FOB(s) will be located near to response activities to manage and provide for the daily operations of the field response. The specific roles required are dependent on the nature and scale of the spill scenario and will be subject to change depending on the response strategies required. All roles may not be necessary for the entire response. The core ERT roles and responsibilities have been summarised in Table 3-6.

Table 3-6: Core ERT Functions

SUB-FUNCTION	ROLES AND RESPONSIBILITIES
FOB Lead	Responsible for the establishment and management of the forward operating base)FOB), IT systems, personnel, materials and equipment.
Safety Officer	Coordinate welfare requirements for all field response personnel. Implementation of health and safety plan measures.
Aerial Operations Manager	Coordination of aerial response operations.
Aerial Observer	To observe and record the location and movements of the oil spill from the aircraft. Development of the observer reports outlining location, extent and thickness of oil.
Marine Operations Manager	Coordination of marine response operations. Ensure they are implemented in line with the IAP.
Shoreline Operations Manager	Coordination of shoreline response operations. Ensure they are implemented in line with the IAP and as per the direction of the relevant Control Agency.

SUB-FUNCTION	ROLES AND RESPONSIBILITIES
SCAT Team Lead	Coordination of the Shoreline Clean-up Assessment Teams (SCAT) at respective field locations. Ensure they are implemented in line with the IAP and as per the direction of the relevant Control Agency.
Shoreline Response Team Lead	Coordination of the day to day shoreline response at respective field location. Ensure they are implemented in line with the IAP and as per the direction of the relevant Control Agency.
OWR Coordinator	Coordination of Oiled Wildlife Response activities. Ensure they are implemented in line with the IAP and as per the direction of the relevant Control Agency.

3.5.2. Incident Command Team Activation

All those that may be required to assist in an emergency are to be notified as early as possible. The following notification process is to be followed:

- The incident is to be reported to the AGR Drilling Superintendent via the duty phone number. If unavailable, a Duty Manager should be contacted via the on-call phone number (refer to Contacts Directory).
- Confirm that the person contacted will assume the role of Incident Commander (IC) (responsible for managing Emperor Energy's response to the incident) if the incident has escalated beyond Level 1,
- The lead in the field (Vessel Master/OIM) will be allocated as the On-scene Commander (OSC).
- The IC, following consultation with the OSC, will notify the Incident Management Team (IMT) members which are on 24-hour call (to standby, or mobilise to the Incident Command Room (ICR) within the agreed 1-hour timeframe).
- The IMT Leader will be responsible for notifying external organisations that can provide additional support if required to scale-up the response.

The incident management system will be scalable, flexible, and adaptable, with the structure able to reflect the size and complexity (operational and tactical levels, as applicable) appropriate to the spill scenario. The oil spill response management arrangements and Incident Management System outlined in this OPEP reflect the Australasian Inter-Service Incident Management System (AIIMS) (Table 3-7). This allows for a standardised and consistent approach to emergency response across Emperor Energy, AGR, contractors and relevant State and Commonwealth government agencies.

In the event of a large spill requiring resources exceeding those of the Emperor Energy organisation, additional personnel and resources will be obtained from:

- Third party contract services and agency hire.
- Industry organisations (e.g. AMOSC) if required.
- AMSA Mutual Aid MoU.

Additional resources will be under the control of the relevant IMT Section Chiefs. An indication of the potential positions and delegation of responsibilities that may occur in a large spill scenario are described in Appendix B.

3.5.3. Incident Command Team Training

Response personnel will be trained for required positions within the IMT. Competency is maintained through participation in regular response exercises and workshops as discussed within Section 7.2. Training requirements for the IMT members are summarised in Table 3-7.

Table 3-7: Training requirements for IMT roles

IMT ROLE	TRAINING REQUIRED	TRAINING	DURATION
Incident Commander Deputy Incident Commander	Oil spill response training for Core IMT members to a level equivalent to IMO III, where appropriate per Appendix B.	• PMAOMIR320, or • PMAOMIR418, or • AMOSC – IMO3 Oil Spill Command & Control, or eequivalent	3/4 days
Planning Section Logistics Section Operations Section Finance & Administration Section Incident Safety Officer	Oil spill response training for Core IMT members to a level equivalent to IMO II, where appropriate per Appendix B.	• PMAOMIR320, or • AMOSC – IMO2 Oil Spill Management Course, or equivalent	3/4 days

3.6. External Notification and Reporting

3.6.1. Regulatory Reporting

For hydrocarbon spill incidents that may occur during the Judith-2 Exploration Drilling activities relevant notifications and reporting requirements will need to be conducted. Notifications and reporting should be undertaken by the IC or CMT delegate.

Table 3-8 provides information relevant to the external notification requirements for a level 2/3 event, including contact details, regulatory reporting requirements for oil spill incidents within Commonwealth and State jurisdictions. Further information can be found within the:

- National Plan for Maritime Environmental Emergencies (National Plan);
- Victorian State Emergency Management Plan (SEMP);
- Victorian Maritime Emergencies (non-search and rescue) (MENSAR) Plan;
- Victorian Emergency Animal Welfare Plan;
- Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan);

- Tasmanian Oiled Wildlife Response Plan (WildPlan);
- NSW Coastal Waters Marine Pollution Plan;
- NSW State Emergency Management Plan (EMPLAN); and
- Agriculture and Animal Services Functional Areas (AASFA) Supporting Plan (NSW).

For spills occurring from vessel activities there is an additional requirement for the Vessel Master to report the incident under the relevant marine oil pollution legislation (MARPOL) as stated within the vessel's SOPEP.

Table 3-8 Hydrocarbon spill notification requirements and contacts

AGENCY OR AUTHORITY	INDICATIVE TIMING	REPORTING REQUIREMENTS	RESPONSIBILITY	SUPPORTING INFORMATION
NOPSEMA	Verbal: within 2 hours Written: as soon as practicable, no later than 3 days.	Incidents occurring in Commonwealth waters that have the potential to cause moderate to significant environmental damage.	IMT IC or delegate	Report verbally ASAP via Incident Notification phone number: Ph: 1300 674 472 NOPSEMA Form N-03000-FM0831 A159980A Email: submissions@nopsema.gov.au *Copy also to NOPTA*
National Offshore Petroleum Titles Administrator (NOPTA)	Written: within 7 days of report being submitted to NOPSEMA.	Incidents occurring in Commonwealth waters (i.e., reportable to NOPSEMA).	IMT IC or delegate	Via Titles Administrator. Provide the same written report as provided to NOPSEMA Email: resources@nopta.gov.au / titles@nopta.gov.au
AMSA	Verbal: Within 2 hours of incident Written: POLREP form within 24 hours on request from AMSA	Vessel incidents occurring >3nm offshore in Commonwealth waters.	Vessel Master	Report verbally or by email if phone contact is not possible to AMSA immediately via Rescue Coordination Centre (RCC): Ph: 1800 641 792 (24-hour) Submit Incident Alert after becoming aware of incident: Alert form 18 Submit an incident report within 72 hours after becoming

AGENCY OR AUTHORITY	INDICATIVE TIMING	REPORTING REQUIREMENTS	RESPONSIBILITY	SUPPORTING INFORMATION
				aware of the incident: incident report form 19 reports@amsa.gov.au Harmful substances report: (POLREP) – oil (form 197 rccaus@amsa.gov.au
Director of National Parks (DNP)	Verbal: ASAP but not later than 2 hours after becoming aware of spill.	All spills that occur within a marine park or have the potential to impact an Australian Marine Park.	IMT IC or delegate	Via the Marine Compliance Duty Officer (24-hr): 0419 293 465
Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Verbal: ASAP following the discovery of NES, no later than 7 days / when directed by State Authority.	Potential for damage of national environmental significance (NES) – including protected and migratory species, Commonwealth marine reserves and RAMSAR wetlands.	IMT IC or delegate	1800 803 772 environment.compliance@dcceew.gov.au
Australian Fisheries Management Authority (AFMA)	Verbal: within 24 hours	Fisheries within the environment that may be affected (EMBA).	IMT IC or delegate	1300 723 621 or (02) 6225 5555 info@afma.gov.au
Spills entering Victorian State Waters				
Victorian Department of Transport and Planning (DTP)	Verbal: as soon as practicable.	All incidents within State Waters and Commonwealth Waters adjacent to Vic State waters.	IMT IC or delegate	SCC-Vic (State Duty Officer - Dept of Transport and Planning) 1800 956 557 sccvic.sdo.transport@scc.vic.gov.au SCC-Vic (State Agency Commander - Dept of Transport and Planning) 1800 973 552 sccvic.scmdr.transport@scc.vic.gov.au |

AGENCY OR AUTHORITY	INDICATIVE TIMING	REPORTING REQUIREMENTS	RESPONSIBILITY	SUPPORTING INFORMATION
				State Control Centre | 8 Nicholson Street East Melbourne Victoria 3002
Victoria Department of Energy, Environment, and Climate Action (DEECA)	Verbal: as soon as practicable.	For marine incidents that have the potential to impact wildlife within Victorian State waters.	IMT IC or delegate	Via the DEECA ERR Duty Officer: 0419 587 010 (24/7) Or via the Vic Emergency Hotline: 1800 226 226
Spills entering Tasmanian State Waters				
Tasmania Environment Protection Authority (EPA)	Verbal: as soon as practicable.	All incidents within State Waters and Commonwealth Waters adjacent to Tasmanian State waters.	IMT IC or delegate	Via Pollution Hotline: 1800 005 171 (24/7) Whale Hotline (for impacts to cetaceans): 0427 942 537 whales@dpipwe.tas.gov.au
Tasmania Department of Natural Resources and Environment (NRET)	Verbal: as soon as practicable.	For marine incidents that have the potential to impact wildlife within Tasmanian State waters.	IMT IC or delegate	Via the Wildlife Incidents Hotline: 1300 827 727
Spills entering New South Wales State Waters				
NSW Maritime	Verbal: as soon as practicable	All incidents within State Waters and Commonwealth Waters adjacent to NSW State waters. NSW Maritime will undertake all notifications in NSW. If a vessel in the Port of Eden to be reported to the Port Authority of NSW	IMT IC or delegate	Via Incident 24-hour Duty Officer: 02 9962 9074 Or AMSA, who will notify the relevant agencies: 1800 641 792

AGENCY OR AUTHORITY	INDICATIVE TIMING	REPORTING REQUIREMENTS	RESPONSIBILITY	SUPPORTING INFORMATION
Spills entering International Waters				
Department for Foreign Affairs and Trade (DFAT)	Verbal: within 24 hours of modelling suggesting movement of hydrocarbon into international waters.	If a spill is heading towards international waters. NOPSEMA, DISER and DFAT will form an inter-agency panel; the Australian Government Control Crisis Centre.	IMT IC or delegate	Via 24-hour consular emergency centre: 1300 555 135

3.6.2. Activation of External Organisations

For any Level 2/3 hydrocarbon spill that occurs during the Emperor Energy Judith-2 Exploration Drilling Program activities several external agencies will need to be contacted to assist with the response. Table 3-9 outlines the specific information of the external agencies that are likely to be used by Emperor Energy in the event of a spill. This list is not exhaustive and does not include additional external agencies that may be used upon decision from the IC under the current situation i.e., vessels of opportunities etc.

Table 3-9: Activation of external organisations for a hydrocarbon spill

AGENCY OR AUTHORITY	INDICATIVE TIMING	ACTIVATION PROCESS	RESPONSIBILITY	SUPPORTING INFORMATION
AMOSC	Verbal: as soon as possible, within 2 hours of incident	Notify AMOSC 24-hour Duty Officer	IC or delegate	+61 438 379 328
AMSA	Immediately following a vessel spill	Notify AMSA 24-hour Search and Rescue	IC or delegate	1800 641 792
Wild Well Control (WWC)	Verbal: within 4 hours of a LOWC incident having been identified	Notify WWC 24-hour emergency hotline	IMT Source Control Lead	Refer to Judith-2 SCERP
Oil Spill Trajectory Modelling (OSTM) provider: RPS Group	As soon as possible, within 2 hours of an incident being identified	Via provider-specific duty officer or AMOSC 24-hour Duty Officer	IC or delegate	Via AMOSC's 24-hour Duty Officer: +61 (0) 438 379 328

OSM Services Provider	Verbal: as soon as initiation criteria is met and approved by the IC Refer to Section 12 of the Judith-2 Exploration Well OSM-BIP for the full mobilisation and activation process	Notify company-specific duty officer	IC or delegate	Directly via OSM Services Provider-24-hours Duty Officer number.
Waste Contractor	Verbal: as soon as practicable when service is likely to be required	Notify waste contractor.	IC or delegate	Directly via provider-specific number.

4. OPERATIONAL RESPONSE

4.1. Spill Response Strategy Selection

4.1.1. Hydrocarbon properties

4.1.1.1. Marine Diesel Oil

The Marine Diesel Oil (MDO) that will be used by the vessels during the activity is categorised as a group II light-persistent oil according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges. The hydrocarbon properties for Marine Diesel Oil (MDO) are summarised in Table 4-1.

Table 4-1: Hydrocarbon properties for MDO (RPS, 2022)

HYDROCARBON CHACTERISTICS			MDO
Density (kg/m^3)			829.1 (at 25 °C)
API			37.6
Dynamic viscosity (cP)			4.0 (at 25 °C)
Hydrocarbon category			Group II
Hydrocarbon classification			Light persistent oil
Boiling Point (˚C)	Non-persistent	Volatile (<180)	6%
		Semi-volatile (180-265)	34.6%
		Low-volatility (265-380)	54.4%
	Persistent	Residual (>380)	5.0%

4.1.1.2. Condensate

Based on the reservoir modelling, Emperor Energy had indicated that the condensate is likely to have an API of 54.6, which is equivalent to a density of 760 kg/m^3. A proxy was carefully selected, to be modelling to ensure the trajectory modelling results were appropriate and applicable. The condensate was classified as a Group I non persistent oil. The hydrocarbon properties for the Condensate are summarised in Table 4-2.

Table 4-2: Hydrocarbon properties for Condensate (RPS, 2022)

HYDROCARBON CHACTERISTICS			CONDENSATE
Density (kg/m^3)			760 (at 15˚C)
API			54.6
Dynamic viscosity (cP)			0.875 (at 20°C)
Hydrocarbon category			Group I
Hydrocarbon classification			Non-persistent oil
Boiling Point (˚C)	Non-persistent	Volatile (<180)	64%
		Semi-volatile (180-265)	19%
		Low-volatility (265-380)	16%
	Persistent	Residual (>380)	1%

4.1.2. Spill Scenarios

Two credible spill release scenarios were identified for the Judith-2 drilling activity which were modelled by RPS (RPS, 2022). A summary of the scenarios is provided in Table 4-3. A summary of the results from the stochastic modelling report (RPS, 2022) for both the worst-case spill scenario, the LOWC, has been included within Section 5.6 of the EP (see EP Appendix C for the full modelling report).

Table 4-3 Credible worst-case scenarios

RISK EVENT	HYDROCARBON TYPE	MAXIMUM CREDIBLE RELEASE VOLUME AND RATE	RELEASE LOCATION	RELEASE TYPE
Vessel fuel tank rupture	MDO	Instantaneous release of 280 m^3 over 6 hours.	Activity location	Surface
Loss of well control (LOWC)	Condensate	Continuous release of 717 m3/day over 77 days. Total released: 55,256 m^3 (347,584 bbl).	Well location	Subsea

4.1.3. Evaluation of Response Strategies

A preliminary Net Environmental Benefit Analysis (NEBA) was conducted based on the nature and scale of the credible worst spill scenarios and spill modelling results identified for the Judith-2 Exploration Drilling program (refer to Section 6.1 of the EP). Table 4-4 summarises the preliminary screened response options that may be implemented for these Hydrocarbon release events. See Section 6.1 of the EP for justifications and further details of the screening process.

Exposure thresholds have been considered during modelling to determine the probability of exposure at sea surface and in-water. Floating oil at moderate threshold (10 g/m^2) and above is considered actionable for a spill response, with a low threshold triggering scientific monitoring only (1 g/m^2).

Table 4-4 Preliminary screened response options for Judith-2 hydrocarbon release scenarios

RESPONSE STRATEGY	TACTIC	APPLICABILITY AND ASSIGNED STRATEGY SELECTION*	
		CONDENSATE	MDO
Source Control	Vessel source control activities (SOPEP)	N/A	Primary
	ROV BOP Emergency Intervention **	Primary	N/A
	Site Survey and Debris Clearance **	Secondary	N/A
	Well Capping Stack **	Secondary	N/A
	Relief Well	Primary	N/A
	Subsea Dispersant Application	Secondary	N/A
	Subsea First Response Toolkit	Secondary	N/A

RESPONSE STRATEGY	TACTIC	APPLICABILITY AND ASSIGNED STRATEGY SELECTION*	
		CONDENSATE	MDO
Monitoring, Evaluation and Surveillance (MES)	Oil Spill Trajectory Modelling (OSTM)	Primary	Primary
	Visual Surveillance – Aerial / Vessel	Primary	Primary
	Remote Imagery / Observation – Satellite/ Tracking Buoys	Primary	N/A
In-situ Burning	Ignition of hydrocarbons	Reject	Reject
Dispersant Application	Surface – Aerial / Vessel	Reject	Reject
Containment and Recovery	Offshore booms and skimmers deployed from vessels to contain and collect oil	Reject	Reject
Shoreline Protection and Deflection	Nearshore booms to protect sensitive receptors	Primary	Primary
Shoreline Clean-Up	Physical removal, flushing, surf washing and bioremediation activities	Primary	Secondary
Oiled Wildlife Response (OWR)	Hazing, pre-emptive capture, oiled wildlife rescue, cleaning, rehabilitation, and release	Primary	Primary
Waste Management	Collection, storage, and disposal of hazardous waste	Primary	Primary
Operational and Scientific Monitoring (OSM)	Monitoring of environmental receptors to distinguish the level of impact from spill and/or response activities	Primary	Primary

*Primary = response strategy used and applied as soon as possible; Secondary = Only applied as needed and when practical; NA = Option not applicable for specific hydrocarbon type; Reject = Option not used due to the lack of net environmental benefit

** Subsea Wellhead only (i.e. does not apply if drilled by a Jack Up MODU)

4.1.4. Response Protection Priorities

The following strategic response priorities have been adopted for this OPEP and are consistent with the Judith-2 Exploration Drilling EP. These include:

- Priority 1 – Human safety and health;
- Priority 2 – Habitat and cultural resources;

- Priority 3 – Rare and/or endangered flora and fauna;
- Priority 4 – Commercial resources; and
- Priority 5 – Amenities.

These priorities provide context to decision-making when evaluating spill response options and selecting the overall response strategy and are continuously reviewed and assessed when reviewing feasibility and effectiveness of response options throughout a hydrocarbon spill event.

4.1.5. Net Environmental Benefit Analysis (NEBA)

The IMT uses a NEBA, also interchangeably referred to as a Spill Impact Mitigation Assessment (SIMA), to inform the IMT during the IAP process (Section 4.2). The NEBA process allows the most effective response strategies, with the least detrimental environmental impacts, to be identified, documented, and executed.

4.1.5.1. Strategic NEBA

A strategic NEBA has been developed for all response strategies identified as applicable to the spill scenarios, with the benefit or potential impact to each sensitivity identified for both scenarios (see EP Section 6.1).

4.1.5.2. Operational NEBA

In the event of a spill, an Operational NEBA is applied to the current spill situation with supporting information collected as part of MES (Section 5.2) to achieve the following:

- Identify all ecological and socioeconomic sensitivities within the spill trajectory area specific to that time of the year.
- Prioritise and allocate resources to sensitivities with a higher protection and response priority.
- Determining the appropriate response strategies with support of real-time metocean conditions, oil spill tracking, operational considerations, and hydrocarbon fate modelling.

The Operational NEBA documents the decisions behind the recommendation to inform the IMT IC. The recommendations provide guidance to the IAP and are revisited each operational period.

4.1.6. Review Effectiveness

The effectiveness of the response is assessed every Operational Period, based on updated situational awareness (i.e., updates in predictive modelling and MES data, current environmental conditions, hydrocarbon release status and weathering). Where a change to operational conditions has occurred, the effectiveness review process may be conducted using the Operational NEBA. The outcomes of the review of response effectiveness informs the IAP process.

4.1.7. Response Termination

The Control Agency is responsible for the decision to terminate response operations. To terminate response to a marine oil spill, the following requirements must be met:

- The source of the spill has been stopped;
- The objectives of the IAP have been met; and
- There are no further practicable steps that can be taken to respond to the spill.

This may include a gradual downsizing of response teams, resources and termination of certain response tactics, or complete termination of the response. An Operational NEBA will be conducted with the relevant

IMT members, liaison officers and stakeholders to inform the decision to terminate a particular response strategy.

4.2. Incident Action Plan (IAP)

The Incident Action Plan (IAP) process governs the ongoing response following the first strike response actions (Section 5) and initial notifications and activation (Section 2). The IAP informs response personnel of the objectives for that operational period, appropriate response priorities, specific operational information (e.g., weather, constraints, limitations, etc), response specific resources that will be applied, and actions or tasks to be taken during the operational period to achieve the objectives. An IAP will be developed and reviewed for each Operational Period (as defined by the IC). The Initial IAP facilitates the transition from the Initial Response phase to an ongoing Operational response period (Figure 4-1).

4.2.1. Reactive Phase

The initial phase of the response (first 48 hours) is considered the Reactive Phase of the IAP development. After the First Strike Response Actions, IMT activation, and initial notifications (as detailed within this OPEP) have been completed information on the incident can be established via communications with the field response teams. During the reactive phase the strategic NEBA and preliminary response strategies (Section 4.1.3) should be reviewed and combined with current situation information to start the development of the IAP to guide the response strategies of the Pro-active Phase/Operational Period of the response.

4.2.2. Pro-active Phase

The Pro-active Phase of the IAP process is the phase that follows the initial response phase (first 48 hours). It is within this phase that the response strategies listed within the IAP (Section 5) are communicated by the IMT to the field response personnel to be actioned. The Operational Period is defined as the period scheduled for the execution of actions specified within the IAP often decided by the IC.

It is important for the response strategies implemented to be reviewed and assessed on their performance success. These results are communicated back to the IMT from the field response team and are used to obtain situational awareness and guide the IAP development for the next operational period.

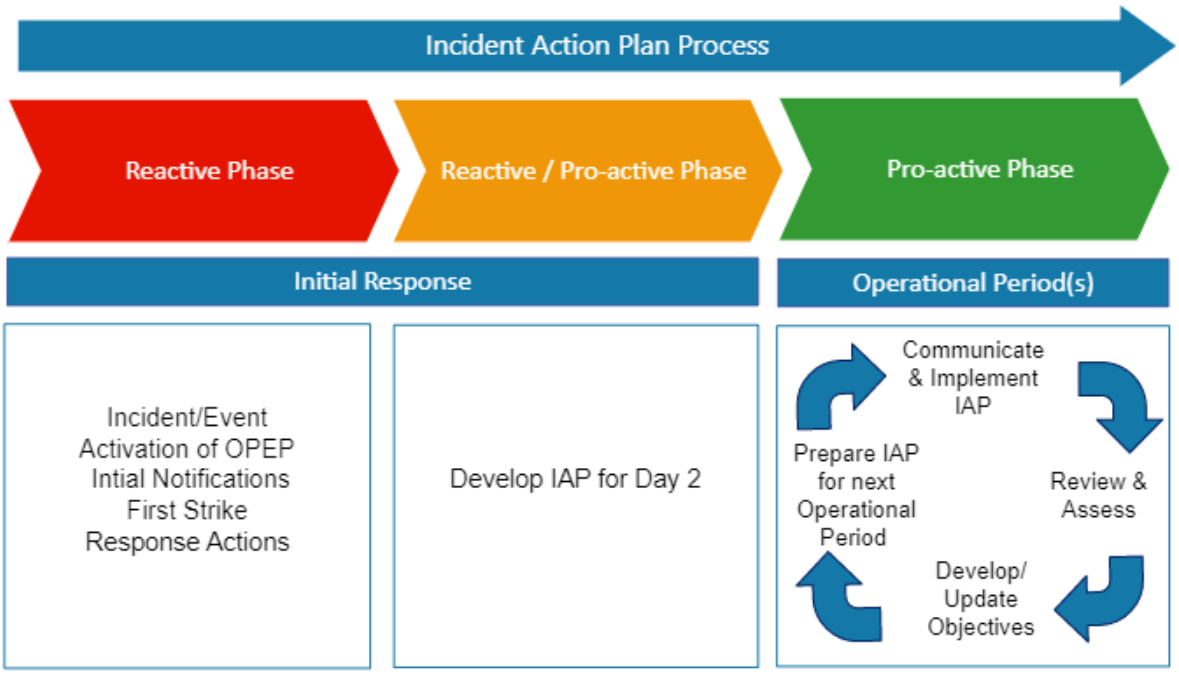

Figure 4-1 Incident Action Plan Process and Response Phases

5. SPILL RESPONSE STRATEGIES

In the event of a spill, the assessment of response options will be reviewed and verified prior to implementation to ensure that the assumptions made in the planning process are valid.

5.1. Source Control

5.1.1. Overview

The initial and highest priority response to a spill incident is to prevent or limit further loss of hydrocarbons into the marine environment. This will only be attempted if the safety of personnel is not compromised, and the source control activity does not cause any further risk or impact to the environment. In most circumstances, the net benefit of source control outweighs the risks and impacts from further hydrocarbons being released. Table 5-1 outlines the objectives, initiation and termination criteria for source control.

Table 5-1 Source Control Objective, Initiation and Termination Criteria

Objective	Minimise or mitigate the amount of hydrocarbon being released into the marine environment.
Initiation Criteria	Immediately after a Level 2/3 LOWC or following a loss of hydrocarbon from a vessel-based incident.
Termination Criteria	• Once the release of hydrocarbon has ceased, or • An alternative control measure has successfully been implemented to control the release

5.1.2. Tactics

In the event of a spill from a vessel, the Vessel Master will enact the SOPEP.

In the event of a LOWC, the immediate response is dependent on the level of damage to the wellhead infrastructure and the rate of flow of hydrocarbons. The source control activities that may be undertaken in the event of a LOWC during the Judith-2 Exploration Drilling Program include:

- Emergency Blow-Out Preventor (BOP) Intervention (Semi-sub drilling rig);
- Site Survey and Debris Clearance (Semi-sub drilling rig);
- Well Capping Stack (Semi-sub drilling rig);
- Subsea Dispersant Application (Semi-sub drilling rig dependent on dispersion modelling);
- Subsea First Response Toolkit (SFRT) (Semi-sub drilling rig dependent on dispersion modelling); and
- Relief Well Drilling (JUR and (Semi-sub drilling rig).

In the event of a vessel fuel tank rupture of MDO the source control activities that may be undertaken during the Judith-2 Exploration Drilling Program include:

- Vessel Source Control Activities (SOPEP).

The following tables provide information regarding the activation of source control tactics, the relevant documentation for implementation, and outlines the applicability and capability to implement those tactics for the drilling program.

5.1.2.1. Blow-out Preventor (BOP) Emergency Intervention

Table 5-2: Source Control Tactic - Emergency BOP Intervention

BLOW-OUT PREVENTOR (BOP) EMERGENCY INTERVENTION (SEMI SUB DRILLING RIG)	
Relevant Implementation / Activation Documentation	Judith-2 Well Control Bridging Document. Judith-2 Source Control Emergency Response Plan (SCERP). Support Vessel Database.
Applicability	Involves the use of response vessels and work-class ROVs with BOP intervention tooling to attempt to close the shear rams of the subsea BOP and cease flow of hydrocarbons from the well.
Considerations	BOP Emergency Intervention activities depend on the state of the wellhead and may require debris clearance to be undertaken prior (which would be determined by observation of the condition of the wellhead / site survey techniques).
Activation Procedure	IMT to activate WWC and prepare for mobilisation of equipment and personnel (as per Table 2-3 Initial Response Guide - IC and).
Capability Provider	The location and availability of support vessels with ROV and BOP tooling capability will be tracked on the vessel contractor's database which is updated continuously. BOP Intervention tooling is readily available and will be mobilised with the vessel with ROV capability.
Availability / Timeframe	Emperor Energy will preferentially mobilise work-class ROV for any response activities so the vessel / ROV spread would be capable of undertaking BOP intervention, reducing potential further mobilisation requirements.

5.1.2.2. Site Survey and Debris Clearance

Table 5-3 Source Control Tactic- Site Survey and Debris Clearance

SITE SURVEY AND DEBRIS CLEARANCE (SEMI SUBMERSIBLE DRILLING RIG)	
Relevant Implementation / Activation Documentation	Support Vessel Register.
Applicability	A site survey may be required to undertake visual observations of the well location and surrounds. Debris clearance may be required, depending on the state of the wellhead, and involves the use of equipment to clean around the wellhead to enable intervention, and if appropriate, installation of a capping device.
Considerations	A site survey would require a support vessel with ROV spread and crew, to undertake visual and/or sonar observations. Debris clearance would require

SITE SURVEY AND DEBRIS CLEARANCE (SEMI SUBMERSIBLE DRILLING RIG)	
	a construction support vessel with lifting equipment rated to approximately 150 T with a work-class ROV.
Activation Procedure	IMT to activate Vessel Broker to support in contracting / mobilisation of vessels to site (as per Table 2-3 Initial Response Guide - IC and).
Capability Provider	The location and availability of support vessels with ROVs and Construction Support Vessels will be tracked on a register which is updated on a monthly basis. Register to include vessel Safety Case status / information. Wild Well Control (WWC) maintains a debris removal package, located in Singapore which will be activated.
Availability / Timeframe	Approximately 24 days from activation (see Section 6.1.1.1 of the EP).

5.1.2.3. Well Capping Stack

Table 5-4 Source Control Tactic - Well Capping Stack

WELL CAPPING STACK (SEMI SUBMERSIBLE DRILLING RIG)	
Relevant Implementation / Activation Documentation	Judith-2 Source Control Emergency Response Plan (SCERP)
Applicability	Involves the use of a construction vessel with work-class ROV capability to lower and latch the capping stack onto the damaged well to stem flow of hydrocarbons. The effectiveness of well capping is largely dependent on the conditions at the time of a well control incident.
Considerations	The safe and effective deployment of capping and containment equipment is subject to sea state operating limits. Deployment of a capping stack would require: • Risk assessment; • Flow rate modelling; • Suitable weather conditions (i.e., to allow the vessel to hold station); and • Assessment of surface gas levels <10 % LELs (gas dispersion modelling).
Activation Procedure	IMT to activate well control specialists and prepare for mobilisation of equipment and personnel (as per Appendix B).

Capability Provider	Emperor Energy will have a contractual agreement with Wild Well Control (WWC), which provides capping and containment capability with the ability to escalate the scale of equipment needed based on the incident.
Availability / Timeframe	Approximately 30 days from activation (see Section 6.1.1.1 of the EP).

5.1.2.4. Subsea Dispersant Application

Table 5-5: Source Control Tactic – Subsea Dispersant

SUBSEA DISPERSANT APPLICATION (SEMI SUBMERSIBLE DRILLING RIG)	
Relevant Implementation / Activation Documentation	Judith-2 Source Control Emergency Response Plan (SCERP)
Applicability	Involves the subsea application of dispersant at the well site via a work-class ROV with a specialist dispersant application wand. The application of subsea dispersant would potentially lower the VOCs at the surface, allowing for a safer working environment for responders who are undertaking capping stack operations. The effectiveness of the dispersant is dependent on the hydrocarbon type, and weathering at the time of a well control incident.
Considerations	The requirement to apply subsea dispersant is dependent on the decision to undertake capping stack operations, which is subject to several variables, as stated in Section 5.1.2.3.
Activation Procedure	IMT to activate AMOSC and prepare for mobilisation of equipment and personnel (as per Appendix B).
Capability Provider	Emperor Energy will maintain an associate membership with AMOSC prior to the activity commencement, which maintains a subsea dispersant stockpile and can assist with access to the remaining application equipment.
Availability / Timeframe	AMOSC would be notified within 48 hours of a LOWC. Best endeavours for subsea dispersant applicable if determine as required.

5.1.2.5. Relief Well

Table 5-6 Source Control Tactic - Relief Well

RELIEF WELL	
RELEVANT IMPLEMENTATION / ACTIVATION DOCUMENTATION	Judith-2 Exploration Relief Well Plan. Relief Well MODU Register. Judith-2 Source Control Emergency Response Plan (SCERP).

APPLICABILITY	In the event that a LOWC cannot be contained by BOP emergency intervention, the drilling of a relief well is the primary source of well control, to be achieved by intersecting the well bore below the release location, circulating kill weight drilling fluid to stem the flow of hydrocarbons.
CONSIDERATIONS	The drilling of a relief well requires availability of a suitable MODU and a NOPSEMA accepted Safety Case. A Safety Case Revision will be prepared following identification of an appropriate MODU during the mobilisation process.
ACTIVATION PROCEDURE	IMT will contact operators of suitable MODUs identified through the Relief Well MODU under the AEP MoU: Mutual Assistance (as per Table 2-3 Initial Response Guide - IC and).
CAPABILITY PROVIDER	Emperor Energy will be a member of the AEP MOU for Mutual Assistance to share drilling units during an emergency. Suitable relief well drilling units will be tracked by AGR on a register which is updated on a monthly basis. Register to include Safety Case status / information.
AVAILABILITY / TIMEFRAME	Approximately 67 days from activation (see Section 6.1.1.1 of the EP). The discharge modelling assumed in the hydrocarbon spill modelling report (RPS, 2022) assumed a conservative 77 days.

5.1.2.6. Vessel Source Control

Table 5-7 Source Control Tactics - Vessel Source Control

VESSEL SOURCE CONTROL	
Relevant Implementation / Activation Documentation	Shipboard Oil Pollution Emergency Plan (SOPEP) and the International Convention for the Prevention of Pollution from Ships (MARPOL)
Applicability	Involves several different tactics, the most applicable and safe procedures will be decided by the vessel master, some include: • Transfer of fuel from the ruptured tank into a temporary storage, an alternative fuel tank, or another vessel; • Attempt to repair the damaged tank; and • Pumping water into ruptured tank.
Considerations	The safe and effective implementation of vessel source control activities is subject to sea state operating limits, availability of alternate storage options, trained personnel, and situation of the incident.
Activation Procedure	The vessel's SOPEP, as applicable under MARPOL, or the vessel specific procedures for responding to a ruptured fuel tank will be following by the vessel crew in communication with AMSA

VESSEL SOURCE CONTROL	
Capability Provider	The Vessel Master will be responsible, in coordination with the relevant Control Agency, for following the SOPEP procedures.
Availability / Timeframe	As soon as practicable

5.1.3. Implementation

Table 5-8: Source Control - Implementation Guidance

SOURCE CONTROL TACTIC	ACTION	COMPLETE
Emergency BOP Intervention	Confirm primary well control actions have failed.	☐
	Implement use of MODU's ROV.	☐
	Brief MODU response team on internal emergency BOP activation procedures.	☐
	Close relevant BOP choke and kill lines. Activate relevant BOP rams via the BOP control panel. Available BOP rams commonly include: • Pipe rams; • Variable-bore rams; • Blind rams; and • Blind-shear ram.	☐
	Communicate effectiveness of tactics to IC.	☐
Site Survey and Debris Clearance	Mobilise crew and equipment to Port. Implementation should be concurrent with capping stack implementation (see below).	☐
	Source and mobilise vessel to Port.	☐
	Loadout debris clearance equipment on construction vessel.	☐
	Transit equipment to site.	☐
	Deploy Debris cleaning equipment.	☐
Well Capping Stack	Mobilise crews and equipment to Port.	☐
	Concurrently source capping stack construction vessel with Australian safety case. Perform HAZID. Commence Safety Case Revision (SCR). Submit SCR to NOPSEMA.	☐
	Stack up and test Capping Stack.	☐

SOURCE CONTROL TACTIC	ACTION	COMPLETE
	Continue to source and mobilise vessel to port.	☐
	Loadout capping stack to construction vessel.	☐
	Transit capping stack directly to well location.	☐
	Awaiting SCR (allow for ongoing dialogue with NOPSEMA to optimise RFFWI response).	☐
	Conduct Debris Clearance activities (assumes debris clearance has not been conducted prior to Capping Stack arrival).	☐
	Deployment of capping stack (assumes vertical access is possible otherwise offset capping stack deployment will be required). Additional time to allow for adverse weather.	☐
Subsea Dispersant Application	Confirm the applicable of subsea dispersant application is required.	☐
	Activate contract with AMOSC, if not previously activated, and requires the services for SSDI response strategy.	☐
	Mobilise equipment and trained specialist responders to Port (including ancillaries and dispersant stockpiles from AMOSC).	☐
	Transit equipment, dispersant and personnel to site.	☐
	Application of subsea dispersant, continuously monitor to confirm effectiveness. Refer to the Emperor Energy Judith-2 Judith-2 Exploration Well OSM-BIP and OMP: Subsea Dispersant Injection Effectiveness Assessment for detailed implementation guidance.	☐
Relief Well Drilling	Identify suitable MODU (Suitable MODU's are identified 2 months prior to spud and updated monthly. Signatory to AEP MOU).	☐
	SCR Schedule developed (Meet NOPSEMA to discuss imminent SCR and its urgency).	☐
	SCR submitted to NOPSEMA.	☐
	SCR Review process (Ongoing dialogue with NOPSEMA to optimise RFFWI response).	☐
	Spud equipment loaded to MODU. Specialised equipment mobilised.	☐
	SCR Accepted.	☐
	MODU Drills relief well (well killed).	☐
Vessel Source Control Activities	Vessel Master to ensure safety of crew.	☐
	Conduct first strike response action for a rupture fuel tank as outlined within the vessel's SOPEP, as applicable under MARPOL. Ensure AMSA has been notified.	☐

SOURCE CONTROL TACTIC	ACTION	COMPLETE
	Specific source control actions to be implemented to be decided by the vessel master in consultation with the relevant Control Agency. These may include: • Transfer of fuel from the ruptured tank into a temporary storage, an alternative fuel tank, or another vessel; • Attempt to repair the damaged tank; and • Pumping water into ruptured tank.	☐
	Ensure crew are briefed on response plan and termination criteria for the chosen response strategy.	☐

5.1.4. Performance Standards

The Environmental Performance Outcome for Source Control is to contain the unplanned release of hydrocarbons from a Level 2/3 spill. The control measure, performance standard and measurement criteria for each relevant source control tactic is outlined in Table 5-9.

Table 5-9: Source Control - Environmental Performance Standards

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Source Control Planning - General	The AGR Project Drilling Manager will ensure that the SCERP is developed consistent with IOGP 594 (2019) at least 3 months prior to commencement of the Activity.	SCREP issued at least 3 months prior to commencement of the Activity.
	Source Control Personnel Resourcing Plan included within SCERP: • Identifies required position/roles for Source Control Team; and • Describes personnel sourcing arrangements to assure resourcing capability.	SCERP demonstrates resourcing capability to meet source control personnel requirements for well containment activities.
	The AGR Project Drilling Manager will ensure that regular vessel / MODU availability forecasting is in place at least three months prior to the commencement of the Activity.	Monthly vessel/MODU availability forecasts for Activity period commence at least three months prior to commencement of the Activity.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
	SC Logistics Plan addresses: • Availability of vessel / MODU for the Activity period based on forecasting and live vessel surveillance (via tracking/ brokerage) during the Activity • IMS risk for primary "likely" response vessels. • Source control personnel mobilisation (including quarantine) arrangements to assure resourcing capability within required timeframes in the event of an incident.	SC Logistics Plan that incorporates: • Vessel / MODU availability for Activity period; • Completed IMS risk assessments; • Mobilisation arrangements / constraints and associated timelines; and • Capping Stack deployment feasibility.
	The AGR Project Drilling Manager will ensure that an exercise is conducted to test the SCERP prior to the commencement of the Activity and that any learnings are fed back into the SCERP and any associated sub-plans.	1. Exercise Report issued. 2. Learnings captured in the Project Action Tracker Register.
	The AGR Project Drilling Manager will ensure that Executed contract with well control provider remains active throughout the Activity for provision of well intervention services.	The Drilling Contractor executed contract with well control provider.
Emergency BOP Intervention	Initiation of emergency BOP intervention by ROV within 9 days of LOWC	SCERP demonstrates capability to meet required timelines for well containment activities.
	The AGR Project Drilling Manager will ensure that Emergency ROV BOP Intervention (if Rig cannot deploy and separate vessel is required) Safety Case Revision preparatory works if the deployment vessel is defined as a Facility.	AGR maintains in-house experienced / qualified Safety Case expertise for completion of vessel-based Emergency ROV BOP Intervention.
	The AGR Project Drilling Manager will ensure that debris removal equipment is available during the	Executed call-off contract for debris removal equipment with well control provider.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
	Activity on a call-off basis within the required timeframe.	
Debris Clearance	Mobilisation of debris clearance equipment to site within 24 days.	SCERP demonstrates capability to meet required timelines for well containment activities.
	The AGR Project Drilling Manager will ensure that debris removal equipment is available during the Activity on a call-off basis within the required timeframe.	Executed call-off contract for debris removal equipment with Well Control Provider.
Capping Stack Deployment	Deployable capping stack (with suitable vessel) available on site within 30 days.	Incident Action Plan records.
	The AGR Project Drilling Manager will ensure that capping stack is available during the Activity.	SCERP demonstrates capability to meet required timelines for well containment activities.
	The AGR Project Drilling Manager will ensure that capping stack Safety Case preparatory works, addressing any relevant learnings from the Drilling Industry Steering Committee (DISC) and industry knowledge on comparable activities, are completed prior to entering the reservoir.	The Drilling Contractor maintains in-house experienced / qualified Safety Case expertise for completion of Capping Stack Safety Case Revision preparatory works.
	If no Capping Stack Installation Support Vessel ISVs are forecast to be in Australia during Activity, an ISV Mobilisation Plan developed at least 3 months prior to the Activity, that: • Identifies suitable alternative ISV(s) • Evaluates reactivation / mobilisation • Associated Safety Case and IMS approvals • Demonstrates capability to meet SCERP timelines for relief well drilling.	ISV Mobilisation Plan identifies suitable ISV, and associated Safety Case requirements, mobilisation timelines.
Subsea Dispersant Application	Subsea dispersant stockpiles and equipment mobilised to site within 7-14 days.	Incident Action Plan records.
	The AGR Project Drilling Manager will ensure that subsea dispersant and equipment is available during the Activity.	SCERP demonstrates capability to meet required timelines for well containment activities.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
	The AGR Project Drilling Manager will ensure that subsea dispersant approval, permits and relevant requirements – based on industry knowledge on comparable activities, are completed prior to entering the reservoir.	The Drilling Contractor maintains in-house experienced / qualified personnel.
Relief Well Drilling	Relief well drilled and dynamic kill, within 77 days.	Mutual Aid agreement MoU in place with other operators to allow use of their MODU, where available, for drilling relief well.
	Relief well casing and wellhead pre-arranged prior to the Activity.	Agreement(s) in place.
	Mutual Aid agreement MoU in place with other operators to allow use of their MODU, where available, for drilling relief well.	Signed AEP Mutual Aid MoU.
	IC initiates Relief Well Plan within 3 hours of LOWC notification.	Incident response logs.
	The AGR Project Drilling Manager will ensure that Relief Well Safety Case Revision preparatory works, addressing any relevant learnings from the DISC and industry knowledge on comparable activities, are completed prior to entering the reservoir.	AGR will maintain in-house experienced / qualified Safety Case expertise for completion of Safety Case Revision preparatory works after primary MODU safety case is issued and prior to entering the reservoir.
Vessel source control activities	Support vessels have a SOPEP or shipboard marine pollution emergency plan (SMPEP) that outlines steps taken to combat spills.	Audit records. Inspection records
	Spill exercises on support vessels are conducted as per the vessels SOPEP or SMPEP.	Spill exercise close-out reports.

5.2. Monitoring, Evaluation and Surveillance

5.2.1. Overview

Monitoring, Evaluation and Surveillance (MES) activities are undertaken to assist in anticipating resources at risk of exposure, directing response resources and evaluating the effectiveness of response techniques. MES

activities are conducted throughout the incident response. Table 5-10 outlines the objectives, initiation and termination criteria for MES.

Table 5-10 MES Objectives, Initiation and Termination Criteria

Objective	To gain situational awareness of the spill and assess the effectiveness of the response strategies being deployed throughout the spill response to inform the IMT decision making.
Initiation Criteria	As soon as a spill incident has occurred. The specific MES tactics employed will vary depending on the size, severity and location of the spill and will be dependent upon the EMT IC.
Termination Criteria	• A spill is no longer visible to surveillance personnel (specifically a spill sheen is not identifiable – defined within the Bonn Agreement Oil Appearance Code); or • A subsurface plume is no longer detected e.g., via fluorometry analysis; or • An agreement is made with the Jurisdictional Authorities and stakeholders to terminate the response.

5.2.2. Tactics

This OPEP includes several MES tactics that may be used to evaluate the parameters and potential trajectory of the spill depending on the spill scenario, including:

- Hydrocarbon fate and weathering modelling – uses computer modelling (e.g., Automated Data Inquiry for Oil Spills (ADIOS2)) to estimate the fate and weathering of the spill;
- Visual Observation:
  - Aerial Surveillance.
  - Vessel Surveillance.
- Oil Spill Trajectory Modelling (OSTM).
- Remote Sensing:
  - Satellite imagery (e.g., KSAT);
  - Tracking Buoys.

5.2.2.1. Hydrocarbon fate and weathering modelling

Following the initial identification and characterisation of the hydrocarbon involved in the incident computer modelling and computational techniques can be used to estimate the weathering of an oil spill.

Hydrocarbon weathering:

The Automated Data Inquiry for Oil Spills (ADIOS2) is NOAA's oil weathering tool. ADIOS2 can provide weathering predictions of hydrocarbon types for spill volumes at different wind speeds and water temperatures. The ADIOS database includes estimates of the physical properties of oils and products. It then

uses this information and mathematical equations to predict changes in those properties once the oil has been released. Such properties include the density, viscosity, and water content of an oil or refined product; and the rates at which it evaporates from the sea surface, disperses into the water column, and forms oil droplets that become emulsified, or suspended, in the water.

The database was compiled from a variety of sources, including Environment Canada, the U.S. Department of Energy, and industry. This computer-based response tool is available and free to download via the 'NOAA Office of Response and Restoration' website. It is important to note that the results from the modelling should only be used as a supplementary material to support the information obtained via the OSTM. The advantages of this form of modelling are that it is open-access, user-friendly and can provide immediate results to assist with the response planning.

Oil Spill Trajectory Modelling (OSTM):

Oil Spill Trajectory Modelling (OSTM) utilises computer models and computational techniques (e.g. OILMAP, SIMAP) to estimate the speed and direction of movement, weathering and dispersal patterns. An advantage of OSTM is that the movement and weathering of the hydrocarbon can be forecasted for multiple days, also the tactic can be used day and night and has limited operational restrictions (i.e. as those associated with aerial surveillance).

For Level 2/3 spills the IMT will be able to access the forecasted movement and fate of the hydrocarbon slick by engaging RPS Group via to undertake real-time modelling of an actual spill event its arrangements with AMOSC (notification to 24/7 Duty Officer), or through AMSA (electronic request via the NEMO system or notifying the AMSA RRC 24/7 Duty Officer). Preliminary modelling results are generally available within 2-3 hours of an initial request following a spill event. OSRL also provides oil spill modelling via OILMAP modelling, accessed via activation of the 24/7 OSRL Duty Manager.

Oil Spill Vectoring:

The movement and behaviour of a hydrocarbon slick may be manually estimated by undertaking vectoring calculations. The advantage of oil spill vectoring is that is can be initiated as soon as the preliminary information on the spill is known and can provide rudimentary information on the potential trajectory of the spill to the response IMT. The data should be used to support real-time surveillance (aerial/vessel) and the comprehensive fore-cast modelling (OSTM).

Manual estimation of oil trajectory movement applies only to floating oil on the sea surface. The calculation is based on the spill slick moving at 100% of the current vector and 3% of the wind vector as the general rule. Therefore, current and wind information for the incident location is required and can be accessed via the Bureau of Meteorology observation station (winds) website or equivalent. Information of the calculation process can be found in NOAA's 'Trajectory Analysis Handbook' on the Office of Response and Restoration website.

5.2.2.2. Visual Observation – Aerial Surveillance

Aerial Surveillance is utilised to gain situational awareness of the presence, size, location, nearby sensitive receptors, visual appearance, slick descriptions, metocean conditions, and the fate and weathering of the hydrocarbon to inform the IMT during the response. Aerial surveillance is typically activated for Level 2/3 spills and will be commissioned and directed by the IC. Requests for aircraft to conduct aerial observations should be made and directed by the IC.

If an aviation asset is available near the incident location, the aviation asset should be utilised to provide an initial surveillance flight to obtain details of the spill incident. If no aviation asset is available, the IMT should

utilise arrangements made through contracts with other aviation providers. It is likely that the initial flight will not include a trained ariel observer on board and will be conducted with standard crew until a trained observer is available.

Trained aerial observers can provide coarse estimates of spill volume by utilising the Bonn Agreement Oil Appearance Code (BAOAC). Further information on aerial surveillance techniques can be found in AMSA's 'Identification of Oil on Water – Aerial Observation and Identification Guide' which can be found on the AMSA website. Aerial observations should be documented in the format shown in the Aerial Observer log forms.

AMOSC has access to the fixed wing service providers and provide accredited marine pollution aerial observers as part of the AMOSC Core Group. Trained aerial observers are also available through AMSA (National Response Team (NRT) Members). The observers will undertake observations over the spill location and any predicted areas of shoreline contact.

5.2.2.3. Visual Surveillance – Vessel Surveillance

Direct observation can be provided from field support or vessels within the vicinity of the incident to provide real-time situational awareness of the slick to support / verify the modelling predictions and trajectories. Vessels of opportunity (as available) and contracted vessels can be contacted following a spill incident to provide vessel surveillance. Spill observers may include project team members, vessel crew and in the event of a Level 2 or 3 spill, AMOSC Core Group Resources and / or AMSA NRT members.

Depending on the scale of the spill, additional vessels may need to be chartered for various tasks such as monitoring, deployment of spill deflection and protection equipment and recovery of personnel and equipment. Any vessel that is chartered must be commercially registered and suitable for its intended purpose. Once a suitable vessel has been identified, the Logistics Officer must organise an official contract for supply.

Due to the proximity of the vessel to the water's surface, surveillance from a vessel will be limited in its coverage compared to aerial surveillance. Vapours from the fresh hydrocarbon and rough sea state may also pose a safety concern and operational restriction.

5.2.2.4. Tracking Buoys

The vessel involved in the activity will carry an oil spill tracking buoy for deployment in the event of a Level 2 or 3 spill. Instructions will be provided to the Vessel Master for the deployment of the tracking buoy. At the time of a spill, the monitoring buoys will be activated and deployed overboard at the leading edge of the slick (if able to be identified) if safe to do so to allow for real-time satellite tracking of the spill. The tracking buoys' movement will be monitored by the IMT and used in assessing the trajectory of the slick.

Additional tracking Buoys can be mobilised from AMOSC stockpiles (nearest being Geelong) via activating the AMOSC Duty Officer, or AMSA via the Duty Officer.

5.2.3. Implementation

Table 5-11: Monitoring, Evaluation, and Surveillance - Implementation Guidance

MES TACTIC	ACTION	COMPLETE
Initial information gathering	Obtain initial oil spill data from:	☐

MES TACTIC	ACTION	COMPLETE
	• The OIM or vessel master e.g., location, weather conditions, and oil type/volume/characteristics; • The in-field response teams e.g., visual characteristics and movement of oil; • Additional data sources i.e., weather data via of the Bureau of Meteorology.	

Hydrocarbon fate and weathering assessment	Activate OSTM provider to estimate the movement, fate and weathering of potential spill:
	• Through AMOSC via the Duty Officer number, or
	• Through AMSA through National Plan arrangements:
	  • Electronic request via the NEMO system or
	  • Notifying the AMSA RRC 24/7 Duty Officer and completing the AMSA Oil Spill Trajectory Modelling (OSTM) request form.
		☐

	Login to the RPS Group (or equivalent) data sharing website and maintain connection. Download modelling results.	☐
	Conduct the initial hydrocarbon fate and weathering assessment: • Use the computer software ADIOS2 modelling utilising the hydrocarbon characteristics detailed in the EP (Section 6)	☐
	Predict initial oil spill trajectory: • Use manual vectoring as outlined in NOAA's 'Trajectory Analysis Handbook'	☐
Tracking Buoy Monitoring	Organise vessels to mobilise tracking buoys (if Level 2/3 incident).	☐
	Access oil spill tracking buoy live feed data if a buoy has been deployed from the vessel / MODU: • Tracking Buoy service will be activated prior to spudding well and vessel and rig operators will be trained on their deployment. • Emperor Energy - can log into the tracking buoy account and monitor location via the contracted provider.	☐
Aerial Surveillance	Contact contracted aviation provider to provide details of incident and request mobilisation to spill site for initial surveillance. Initial aerial observation can be conducted by an aviation asset within the vicinity if available.	☐
	Mobilise Aerial Observation aircraft (if Level 2/3 incident) to commence operations in daylight hours (through AMOSC Duty Officer).	☐
	Source available Aerial Observers – arrange logistics	☐
	Develop flight plan	☐

MES TACTIC	ACTION	COMPLETE
	Pre-flight briefing	☐
	Commence surveillance by using the Aerial Surveillance log	☐
	Relay surveillance records to the IMT. Update IAP for next operational period	☐
Vessel Surveillance	Obtain vessel observations from any vessels on location / spill source vessel (if appropriate)	☐

5.2.4. Performance Standards

The Environmental Performance Outcome for MES is to monitor the unplanned release of hydrocarbons from a Level 2/3 spill to inform the response and remediation efforts. The control measure, performance standard and measurement criteria for each relevant MES tactics is outlined in Table 5-12.

Table 5-12: Monitoring, Evaluation, and Surveillance - Environment Performance Standards

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
OSTM	OSTM commissioned within 2 hours of incident	• Communication between IMT, and RPS APASA via AMOSC / AMSA (or equivalent) show date and time of OSTM request.
	OSTM continues until spill source is controlled and no further regions affected by the spill.	• IMT access-enabled web portal with quasi-real-time modelling results; and • OSTM forecast report(s) to IMT.
Tracking Buoys	Satellite tracking buoy deployed from MODU / support vessel within 1 hour of spill.	• MODU / vessels storage logs confirm tracking buoys on-board; • Communication between Vessel Master and IMT confirm commencement of tracking; • Incident log indicates tracking buoys deployed; • Operational web-based buoy tracking portal; and • Archive of satellite tracking buoy data.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Vessel Surveillance	Surveillance with contracted support vessel(s) undertaken within 30 minutes (if it is available for surveillance activities) of spill notification.	• IMT logs; • Vessel logs; • Completed OS1 vessel; and • Completed Observation sheets.
	Vessel surveillance with untrained observers within 24 hours of IMT activation.	
	Ongoing vessel surveillance information regularly available until termination criteria met.	
Aerial Surveillance	Aerial surveillance requested by IMT within 3 hours and initial survey within 24 hours (daylight permitting) with untrained observers and 48 hours with trained observers.	• IMT logs; • Flight logs; and • Associate Membership with AMOSC for core group access.
	Aerial surveillance observations made available to IMT within 1 hour of completion of flight.	• IMT logs; • Completed OMS-1 aerial observation data sheets or similar reporting; and • Flight logs.

5.3. Shoreline Protection and Deflection

5.3.1. Overview

Protection and deflection tactics are utilised to divert hydrocarbons away from sensitive shoreline receptors prior to spill contact. They are typically used to protect smaller, high priority sections of shoreline. Spill modelling indicates that if a worst-case spill were to occur as a result of the Judith-2 exploration drilling activity, shoreline contact would occur and therefore the protection and deflection of shorelines is likely to be required. Table 5-13 outlines the objectives, initiation and termination criteria for shoreline protection and deflection.

Shoreline protection and deflection effectiveness will be dependent on the spill characteristics, hydrocarbon type, and the operating environment. Due to the very light nature of the condensate gas (MDO has not been predicted to impact shorelines) and the rapid natural dispersion predicted by the modelling, the opportunity to deploy effective protection and deflection tactics may be limited. However, protection and deflection may be beneficial where sensitive resources are predicted to be threatened at the time of the release. Deployment is subject to safety constraints.

This response strategy is part of the shoreline response which will be managed by the relevant Control Agency (refer to Section 3.2). Where Emperor Energy is not the Control Agency, it will undertake first strike

protection and deflection activities as required. Emperor Energy will provide relevant information on shoreline character and oiling collected as part of MES response activities carried out under its control (refer Section 5.2). Victoria DTP are the relevant Control Agency for spills that contact the shorelines of Victorian State waters.

Where Emperor Energy is not the Control Agency, the ongoing response objectives, methodology, deployment locations and resource allocation will be controlled by the relevant Control Agency and therefore may differ from that included below.

Table 5-13: Shoreline Protection and Deflection – Objectives, Initiation and Termination Criteria

Objective	To reduce hydrocarbon contact with coastal protection priorities.
Initiation Criteria	• Level 2 or Level 3 spills where shorelines with identified or potential protection priorities will potentially be contacted; and • Approval has been obtained from the relevant Control Agency to initiate the response strategy.
Termination Criteria	• NEBA has determined that this strategy is unlikely to result in an overall benefit to the affected shoreline/s; and • An agreement has been reached with Jurisdictional Authorities and stakeholders to terminate the response.

5.3.2. Tactics

This OPEP includes several protection and deflection tactics that may be used to protect sensitive receptors depending on the spill scenario, including:

- Nearshore booming, including:
    - Exclusion booming: boom acts as exclude the spill from areas requiring protection;
    - Diversion booming: booms divert the spill to a specific location where it may be removed (e.g. sandy beach); and
    - Deflection booming: booms deflect the spill away from an area requiring protection.
- Nearshore exclusion – use of sandbags or embankments to exclude oil from sensitive areas.
- Nearshore recovery:
    - Active recovery: use of nearshore skimmers to collect oil collected by nearshore booms.
    - Passive recovery: uses sorbent booms or pads to collect oil and remove it from the environment.
- Pre-impact non-oiled debris removal – removes debris from the shoreline before it is impacted to reduce overall waste volumes from shoreline clean-up.

The effectiveness of these tactics will be dependent on local bathymetry, sea state, currents/tides and wind conditions and the available resources.

5.3.3. Implementation

Table 5-14: Shoreline Protection and Deflection – Implementation Guidance

TACTIC / STAGE	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
Activation	Ensure initial notifications to the relevant Control Agency have been made.	☐
Preparedness	Collect and provide spill trajectory modelling, other operational monitoring data and existing sensitivity information/mapping to Control Agency for confirmation of priority protection areas and NEBA.	☐
	Conduct Operational NEBA to determine if protection and deflection is likely to result in a net environmental benefit using information from shoreline clean-up assessments (Section 5.2).	☐
	If NEBA indicates that there is an overall environmental benefit, develop a Shoreline Protection Plan (IAP Sub-Plan) for each deployment area. To include, but not limited to, the following: • Priority areas for protection; • Locations to deploy equipment; • Permits required (if applicable); • Appropriate tactics to be employed at each location; • List of resources required; • Logistical arrangements; • Timeframes for deployment; • Access (i.e., from land or sea) and access limitations; • Equipment maintenance/inspection requirements; • Waste management information; • Demarcation zones for sensitive areas; and • Safety concerns.	☐
	If required identify vessels with relevant capabilities (e.g. shallow draft) for equipment deployment in consultation with Control Agency. Ensure vessels have shallow draft and/or a suitable tender (with adequate towing capacity and tie-points) if they are required to access shorelines.	☐
Mobilisation of Resources	Deploy shoreline protection response teams to each shoreline location selected and implement response. Note: If passive recovery and/or non-oiled debris removal has been selected as a tactic, ensure deployment activities prioritise their implementation prior to hydrocarbon contact	☐
On-going Actions	Conduct daily re-evaluation of NEBA to assess varying net benefits and impacts of continuing to conduct shoreline protection and deflection activities.	☐
	Report to the Operations Section Chief on the effectiveness of the tactics employed.	☐
	Response teams to conduct daily inspections and maintenance of equipment.	☐

TACTIC / STAGE	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
	Shoreline protection efforts will be maintained through the forward operation(s) facilities setup at mainland locations under direction of the Control Agency. Response crews will be rotated on a roster basis, with new personnel procured on an as needs basis from existing human resource suppliers.	

5.3.4. Performance Standards

The Environmental Performance Outcome for Shoreline Protection and Deflection is to minimise the hydrocarbons contacting sensitive receptors from a Level 2/3 spill. The control measure, performance standard and measurement criteria for each relevant tactic is outlined in Table 5-15.

Table 5-15: Shoreline Protection and Deflection - Environmental Performance Standards

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Shoreline Protection and Deflection	AMOSC Associate membership to ensure that equipment and personnel can be provided.	AMOSC Associate Membership contract.
	Maintenance of a list of small vessel providers for Victoria regions	List of small vessel providers
	Mobilisation of minimum requirements for initial response operations unless directed otherwise by Control Agency.	Incident log
	IMT to confirm protection priorities in consultation with Control Agency.	IAP/ Incident log
	Prepare operational NEBA to determine if shoreline protection and deflection activities are likely to result in a net environmental benefit.	Records indicate operational NEBA completed prior to shoreline protection and deflection activities commencing.
	IAP Shoreline Protection and Deflection Sub-plan developed to provide oversight and management of shoreline protection and deflection operation.	Records indicate IAP Shoreline Protection and Deflection Sub-plan prepared prior to shoreline protection and deflection operations commencing.
	NEBA undertaken each operational period by the relevant Control Agency to determine if response strategy is continuing to have a net environmental benefit. NEBA included in development of following period Incident Action Plan.	IAP/Incident Log

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
	Spill response activities selected on basis of a Net Environmental Benefit Analysis.	Incident Log contains NEBA
	Shallow draft vessels are used for shoreline and nearshore operations unless directed otherwise by the designated Control Agency (i.e. Victoria DTP)	Vessel specification documentation contained in IAP.
	Unless directed otherwise by the designated Control Agency (i.e. Victoria DTP), a shoreline/nearshore habitat/bathymetry assessment is conducted prior to nearshore Activities.	IAP records assessment records

5.4. Shoreline Clean-up

5.4.1. Overview

Shoreline clean-up aims to remove hydrocarbons from shorelines and intertidal habitat (if impacted) to achieve a net environmental benefit. Removal of these hydrocarbons helps reduce remobilisation of hydrocarbons and contamination of wildlife, habitat and other sensitive receptors. Spill modelling indicates that if a worst-case spill were to occur as a result of the Judith-2 exploration drilling activity, shoreline contact will occur and therefore clean-up of shorelines is likely to be required. Table 5-16 outlines the objectives, initiation and termination criteria for shoreline clean-up.

Due to the very light nature of the condensate gas (MDO has not been predicted to impact shorelines), it may be difficult to remove. It is likely to be readily washed from sediments by wave and tidal flushing. Contaminated sand and debris are the likely waste products from a shoreline response. It is important to note that natural dispersion (primarily through evaporation) will continue after shoreline contact, which will likely reduce the volumes of hydrocarbon for clean-up.

The information obtained from MES response strategies (refer Section 5.2), will be used by the IMT in the development of the operational NEBA to inform the most effective clean-up tactics (if any) to apply to individual sites. Intrusive shoreline clean-up techniques have the potential to damage sensitive shorelines. The appropriateness of clean-up tactics will be assessed against natural attenuation for sensitive sites. Selection of shoreline clean-up methods and controls to prevent further damage from the clean-up activities are to be undertaken in consultation with the Control Agency and selected based on NEBA.

This response strategy is part of the shoreline response which will be managed by the relevant Control Agency (refer to Section 3.2). Where Emperor Energy is not the Control Agency, it will undertake first strike protection and deflection activities as required. Emperor Energy will provide relevant information on shoreline character and oiling collected as part of MES response activities carried out under its control (refer Section 5.2). Victoria DTP are the relevant Control Agency for spills that contact the shorelines of Victorian State waters.

Where Emperor Energy is not the Control Agency, the ongoing response objectives, methodology, deployment locations and resource allocation will be controlled by the relevant Control Agency and therefore may differ from that included below.

Table 5-16: Shoreline Clean-up - Objectives, Initiation and Termination Criteria

Objective	To remove stranded hydrocarbons from shorelines in order to reduce impact on coastal protection priorities and facilitate habitat recovery.
Initiation Criteria	• Level 2 or Level 3 spills where shorelines with identified or potential protection priorities that will be, or have been, contacted; • If the operational NEBA indicates that shoreline clean-up will benefit receptors; and • Approval has been obtained from the Control Agency to initiate response strategy.
Termination Criteria	• As directed by the relevant Control agency (e.g. Victoria DTP).

5.4.2. Tactics

This OPEP includes several shoreline clean-up tactics that may be used to remove hydrocarbons from shorelines or intertidal habitats following impact from a spill (specific tactics depend on the spill scenario), including:

- Shoreline Clean-up Assessment Technique (SCAT) – uses assessment processes (refer to Judith-2 Exploration Well OSM-BIP and OMP: Shoreline Cleanup Assessment [APPEA, 2021]) to assess shoreline character, assess shoreline oiling and develop recommendations for response.. This is the first step in any shoreline clean-up response;
- Natural recovery: oiled shorelines are left untreated, and the oil naturally degrades over time. Often implemented where the operational NEBA indicates that there will not be a net benefit to the environment (i.e. salt marshes, mangroves);
- Manual Removal – removal of oil and contaminated materials using hand tools (i.e. rakes, spades, personnel);
- Mechanical Removal – removal of oil and contaminated materials using machinery;
- Washing, Flooding and Flushing – uses water, steam, or sand to flush oil from impacted shoreline areas; and
- Sediment reworking and Surf washing – uses various methods to accelerate natural degradation of oil by manipulating the sediment.

The effectiveness of these tactics will be dependent on the nature and scale of the spill, as well as the local bathymetry, sea state, currents/tides and wind conditions and the available resources.

5.4.3. Implementation

Table 5-17: Shoreline Clean-up – Implementation Guidance

TACTIC / STAGE	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
Activation	Initiate Shoreline Clean-up Assessment (if not already activated). Refer to Judith-2 Exploration Well OSM-BIP for further information.	☐
Preparedness	Using results from Shoreline Clean-up Assessment, conduct Operational NEBA to assess shoreline-clean up suitability and recommended tactics for each shoreline location. Shoreline Clean-up Assessment Teams are responsible for preparing field maps and forms detailing the area surveyed and make specific clean-up recommendations. The condition of affected shorelines will be constantly changing. Results of shoreline surveys should be reported as quickly as possible to the IMT to help inform real-time decision-making. Engage a Heritage Adviser if spill response activities overlap with potential areas of cultural significance.	☐
	If operational NEBA supports shoreline clean-up, prepare a Shoreline Clean-up Plan for inclusion in the IAP. Shoreline Clean-up Plan may include (but not be limited to) the following: • Clean-up objectives; • Clean-up end points (may be derived from Shoreline Clean-up Assessment); • Clean-up priorities (may be derived from Shoreline Clean-up Assessment); • Assessment and location of staging areas and worksites (including health and safety constraints, zoning); • Utility resource assessment and support (to be conducted if activity is of significant size in comparison to the size of the coastal community); • Permits required (if applicable); • Chain of command for onsite personnel; • List of resources (personnel, equipment, personal protective equipment) required for selected clean-up tactics at each site; • Details of accommodation and transport management; • Security management; • Waste management information, including logistical information on temporary storage areas, segregation, decontamination zones and disposal routes; and • Establish no access and demarcation zones for vehicle and personnel movement considering sensitive vegetation, bird nesting/roosting areas and other sensitive areas (i.e., utilise existing roads and tracks first).	☐

TACTIC / STAGE	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
	Refer to IPIECA-IOGP (2015) for additional guidance on shoreline clean-up planning and implementation.	
Mobilisation of resources	In consultation with the Control Agency (i.e. Victoria DTP) procure and mobilise resources to a designated port location for deployment, or directly to location via road transport.	☐
Response	Deploy shoreline clean-up response teams to each shoreline location to begin operations under direction of the Control Agency. Each clean-up team to be led by a Shoreline Response Team Lead, who could be an AMOSC Core Group Member or trained member of the AMSA administered National Response Team (as per the MoU agreement between Santos and AMSA). Clean-up teams and equipment will be deployed and positioned as per those observations by the Shoreline Clean-up Assessment Teams in consultation with the Control Agency. Team members will verify the effectiveness of clean-up, modifying guidelines as needed if conditions change.	☐
On-going Actions	Shoreline Response Team Lead shall communicate daily reports to the IMT Operations Section Chief to inform of effectiveness of existing tactics and any proposed tactics and required resources. Where possible, maintain some consistency in personnel within Shoreline Response Teams. If the same personnel are involved in Shoreline Clean-up Assessment and clean-up, they will be better placed to adapt their recommendations as the clean-up progresses and judge when the agreed end-points have been met.	☐
	The IMT Operations Section Chief shall work with the Planning Section Chief to incorporate recommendations into the Incident Action Plans for the following operational period, and ensure all required resources are released and activated through the Supply and Logistics Team Leaders.	☐
	Monitor progress of clean-up efforts and report to the Control Agency.	☐

5.4.4. Performance Standards

The Environmental Performance Outcome for Shoreline Clean-up is to remove hydrocarbons from the shoreline following a Level 2/3 spill to ensure net environmental benefit. The control measure, performance standard and measurement criteria for each relevant Shoreline Clean-up tactics is outlined in Table 5-18.

Table 5-18: Shoreline Clean-up - Environmental Performance Standards

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Shoreline clean-up arrangements	Maintain access to shoreline clean-up equipment and personnel through AMOSC and AMSA National Plan.	MoU for access to National Plan resources through AMSA.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
		AMOSC Associate Member Contract.
	Maintenance of Mutual Service Agreement (MSA) with vessel providers, including shallow draft vessels.	MSAs with vessel providers.
	Maintenance of contract with labour hire provider.	Contract.
Shoreline Clean-Up Plan	IMT to confirm protection priorities in consultation with the Control Agency (i.e. Victoria DTP).	IAP / Incident Log.
	Mobilisation of the required number of shoreline teams throughout the release to meet the response need.	Incident Log.
	Prepare operational NEBA to determine if shoreline clean-up activities are likely to result in a net environmental benefit.	Records indicate operational NEBA completed prior to shoreline clean-up activities commencing.
	IAP Shoreline Clean-up Sub-plan developed to provide oversight and management of shoreline clean-up operation.	Records indicate IAP Shoreline Clean-up Subplan prepared prior to shoreline clean-up operations commencing.
Shoreline Clean-up Response	Clean-up strategies will be implemented under the direction of the Control Agency (i.e. Victoria DTP).	Incident Log.
	Emperor Energy will make available AMOSC Core Group Responders for shoreline clean-up team positions to the Control Agency.	Incident Log.
	Emperor Energy will make available to the Control Agency equipment from AMOSC stockpiles.	Incident Log.
	NEBA undertaken every operational period by the relevant Control Agency to determine if response strategy is having a net environmental benefit. NEBA included in development of following period Incident Action Plan.	IAP/Incident Log.
	Unless directed otherwise by the designated Control Agency (i.e. Victoria DTP), access plans for shoreline operations will prioritise use of existing roads and tracks.	IAP demonstrates requirement is met.
	Use of Heritage Adviser if spill response activities overlap with potential areas of cultural significance.	Documented in IAP and Incident Log.

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
	Any establishment of forward staging areas at shoreline areas done under direction or in consultation with the Control Agency.	Documented in IAP and Incident Log.
	Assess/select vehicles appropriate to shoreline conditions	IAP demonstrates requirement is met.
	Unless directed otherwise by the Control Agency (i.e. Victoria DTP), demarcation zones are mapped out in sensitive habitat areas.	IAP demonstrates requirement is met.
	Operational restriction of vehicle and personnel movement to limit erosion and compaction.	IAP demonstrates requirement is met.
	Stakeholder consultation with relevant stakeholders prior to deployment of resources to townships and marine/coastal areas.	Consultation records.

5.5. Oiled Wildlife Response

5.5.1. Overview

A marine oil pollution incident has the potential to immediately impact wildlife. As such, rapid establishment of an oiled wildlife response (OWR) is critical for the prevention and mitigation of impact to un-oiled wildlife and responding to oiled animals through capture and rehabilitation. Table 5-19 outlines the objectives, initiation and termination criteria for OWR.

Table 5-19 OWR - Objectives, Initiation and Termination Criteria

Objective	To mitigate damage to the fauna impacted by the spill incident.
Initiation Criteria	• Any oiled wildlife is reported or predicted to be impacted by oil; and • The operational NEBA indicates that the OWR strategy will result in an environmental benefit.
Termination Criteria	• Oiled wildlife has been successfully rescued and rehabilitated; • No oiled wildlife can be observed after a few operational periods; or • An agreement has been reached with Jurisdictional Authorities and stakeholders to terminate the response

5.5.1.1. Commonwealth Waters

Emperor Energy will activate AMOSC, and AMSA if required, in the event of a Level 2/3 spill. Part of this activation will be the standby of OWR teams. AMOSC and AMSA both have on call personnel and equipment who can be activated if necessary. The Oil Spill Trajectory Modelling (undertaken by RPS APASA via AMOSC contract) will determine the direction of the spill and the potential interaction of any wildlife.

Fixed-wing aircraft would be mobilised via contracted service provider and will be used to observe the movement of the spill. If it is safe to do so, vessels will be mobilised to the area.

DCCEEW will need to be contacted in the event of oiled or potentially oiled wildlife in Commonwealth waters, as well as the Director of National Parks if there is the potential for Australia Marine Parks to be impacted.

Refer to Section 3.6 (External Notification and Reporting) for contact details.

5.5.1.2. Victorian State Waters

As discussed within Section 3.3.2.2, for a spill that has impacted, or is impeding impact, wildlife within Victorian State Waters, Emperor Energy will be responsible for notifying the DEECA State Agency Commander and providing support where possible when requested to support the oiled wildlife response.

The DEECA is responsible for coordination of activities relating to wildlife during emergencies, including oil spill response, and the DJSIR is responsible for the coordination of activities relating to all animals other than wildlife. This is stated within the Victorian Maritime Emergencies (non-search and rescue) (MENSAR) Plan, which serves the purposed of the Victorian oil pollution contingency plan.

DEECA and DJSIR have arrangements with multiple organisations, such as Philip Island Nature Park, Victoria, that will provide animal services resources to assist in an emergency response. The DEECA State Agency Commander should be notified in the event of wildlife impacted or impeding impact from a hydrocarbon event. Further details on the specifics of the oiled wildlife response (e.g., rescue, triage, treatment and rehabilitation) can be found within the Victorian Emergency Animal Welfare Plan (VEAWP).

Response plan activities include the search and rescue of affected wildlife, triage, rehabilitation and post-spill monitoring of populations and habitat. Impacted wildlife is generally treated at the Phillip Island Nature Park, Victoria, or by other wildlife rehabilitators with relevant experience.

5.5.1.3. Tasmanian State Waters

As discussed within Section 3.3.3.2, for a spill that has impacted, or is impeding impact, wildlife within Tasmanian State Waters, Emperor Energy will be responsible for notifying the Wildlife Health and Marine (WHAM) Duty Officer and providing support where possible when requested to support the oiled wildlife response.

WHAM, a division of the Department of Natural Resources and Environment Tasmania (NRET) (formerly DPIPWE), will be responsible for administrating the Tasmanian Oiled Wildlife Response Plan (WildPlan).

The WildPlan outlines priorities and procedures for the rescue and rehabilitation of oiled wildlife within Tasmania State Waters.

5.5.1.4. New South Wales State Waters

As discussed within Section 3.3.4.3 and 3.3.4.4, for a spill that has impacted, or is impeding impact, wildlife within New South Wales State Waters, Emperor Energy will be responsible for notifying the NSW DPI Duty Officer and providing support where possible when requested to support the oiled wildlife response.

The NSW DPI is responsible for undertaking all notifications in NSW, coordinating agriculture and fisheries services, to support the oil/chemical spill lead agency as stated under the NSW State Emergency Management Plan and Coastal Waters Marine Pollution Plan. NSW DPI has a MOU with multiple organisations that will provide animal services resources to assist in an emergency response under the coordination of NSW DPI.

The NSW EPA is the coordinating agency for the Environmental Services Functional Area (EnvSFA). The EnvSFA is responsible for providing advisor(s) to give expert scientific/technical advice and/or environmental personnel to support the response for protecting the environment. This may include assistance with environmental impacts, identification of hazardous material, provisions or sourcing environmental monitoring equipment, supporting emergency wildlife response, advice for clean-up and disposal of hazardous waste, suggestions of agencies to involve, and the provision of a Liaison Officer upon request.

The DPI is appointed the Agriculture and Animal Services Functional Area (AASFA) to be responsible for activating the Agriculture and Animal Services Functional Area Supporting Plan, risk assessment, notification of key stakeholders, and providing a Liaison Officer upon request.

5.5.2. Implementation

Table 5-20: OWR - Implementation Guidance

TACTIC	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
OWR Activation	Notify AMOSC and AMSA if the oil spill occurs in Commonwealth waters and wildlife is affected. Notify the relevant State Duty Officer or State Agency Commander for wildlife within the jurisdiction immediately.	☐
Wildlife Reconnaissance	Determine potential wildlife resources at risk based on initial MES data (aerial and vessel surveillance). Determine the exact location of the animal and provide accurate directions. Maintain observation until State agency can deploy staff to the site. If shoreline contact is predicted, mobilise personnel to conduct shoreline observations. Focus resources on potential species at risk, based on trajectory analysis (MES tactics). Information gained from these surveys is key to mounting effective deterrence, search and capture, and response efforts and will be used to determine the scope and scale of wildlife response.	☐
Mobilisation of Resources	Mobilise personnel, equipment, and facilities in coordination with VIC/TAS/NSW State Agencies, relevant stakeholders and AMOSC (if required and requested by the state agency).	☐
Incident Action Plan Wildlife Sub-Plan	Develop the Incident Action in coordination with regulatory agencies (Vic/Tas/NSW State Agencies and AMOSC) based on known conditions and information gathered from wildlife reconnaissance and MES. The OWR IAP is to be modified or amended throughout the incident as needed when conditions change. The plan is to include the appropriate response options: • Wildlife priorities for protection from contact with oil; • Deterrence measures; and • Recovery and treatment of oiled wildlife; resourcing of equipment and personnel.	☐

TACTIC	IMPLEMENTATION / ACTIVATION GUIDE	COMPLETE
Wildlife Rescue and Staging	Based on daily wildlife monitoring observations and assessment of oil-impacted wildlife, determine location of wildlife rescue effort locations (where there are known concentrations of impacted animals) and appropriate rescue methods based on individual animal health condition or potential for rapidly declining health secondary to oiling. If additional equipment is requested by the state agency AMSA / AMOSC should be notified for the OWR kit(s) and containers managed to be mobilised to site (only if required).	☐

5.5.3. Performance Standards

The Environmental Performance Outcome for OWR is to minimise or mitigate the impacts to wildlife from a Level 2/3 spill. The control measure, performance standard and measurement criteria for each relevant OWR tactic is outlined in Table 5-21.

Table 5-21: OWR - Environmental Performance Standards

CONTROL MEASURE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
OWR Planning	AMOSC Associate membership to ensure that equipment and personnel can be provided.	AMOSC Associate Membership contract.
OWR Activation	Vic/Tas/NSW State Agencies to be notified as soon as possible after sighting of oiled wildlife.	IMT records verify that verbal and/or written notification was provided to Vic/Tas/NSW State Agencies as soon as possible after sighting.

5.6. Waste Management

5.6.1. Overview

Oil spills to the marine environment can generate significant amounts of oily waste that need to be collected and disposed of properly, in accordance with MARPOL 73/78 Annex V – Garbage, relevant Commonwealth and State/Territory laws and regulations.

Immediately upon knowledge of an oil spill, Emperor Energy will develop an Oil Spill Waste Management Plan (OSWMP) in consultation with AMOSC and the relevant control agency. The OSWMP will ensure the ongoing supply and backload of appropriate waste management equipment.

Based on the hydrocarbon characteristics of diesel and dry gas, and the predicted outcomes of the modelling of credible worst-case spill scenarios, large volumes of waste are not expected to be generated. Waste generated from the spill is anticipated to be managed and contained within small transportable waste receptables, suitable for the storage capacity on support vessels and port waste reception facilities. All waste stored or transferred will be fully documented, including details of exact volume and nature of the waste, date and time, receiver of the waste and destination of the waste, in accordance with vessel Garbage Management Plans and the onshore licenced waste contractor's waste tracking process.

Emperor Energy will engage with a waste service provider to ensure sufficient temporary waste storage items are utilised, and that the waste is collected, stored, transported, and disposed of as per regulatory requirements. Table 5-22 outlines the objectives, initiation and termination criteria for waste management.

Table 5-22 Waste Management - Objective, Initiation and Termination Criteria

Objective	Ensure that waste treatment, transport and disposal regulations are being complied, and any secondary contamination is mitigated or reduced where possible
Initiation Criteria	When any response activity that has the potential to generate waste has been initiated
Termination Criteria	• Once all waste has been stored, transported, and disposed of as per the regulatory requirements; and • An agreement has been reached with Jurisdictional Authorities and stakeholders to terminate the response

5.6.2. Implementation

Table 5-23: Waste Management - Implementation Guide

WASTE MANAGEMENT TACTIC	ACTION	COMPLETE
Waste Management	Contact waste service provider.	☐
	Utilise initial modelling, hydrocarbon type and chosen response strategies to communicate expected type and volume of liquid and solid waste to waste service provider.	☐
	Determine suitable location for temporary waste storage items to be location (aim to avoid secondary contamination).	☐
	Ensure appropriate waste segregation at site is established and followed throughout the response.	☐
	Mobilise waste management resources and services to determined locations – in communication with the waste service provider.	☐
	Ensure waste handling, transport and disposal comply with legislative requirements.	☐

5.6.3. Performance Standards

The Environmental Performance Outcome for waste management is to ensure that waste treatment, transport and disposal regulations are being complied, and any secondary contamination is mitigated or reduced where possible in the event of a Level 2/3 spill. The control measure, performance standard and measurement criteria for each relevant waste management tactic is outlined in Table 5-24.

Table 5-24: Waste Management - Performance Standards

Response Tactic	Performance Standard	Measurement Criteria
Waste Management	Maintain access to waste management equipment, personnel, transport, and disposal facilities throughout the response.	Contract with a waste service provider for response services during an emergency oil spill response.

5.7. Operational and Scientific Monitoring

5.7.1. Overview

OSM is a key component of the environmental management document framework for offshore petroleum activities, which includes activity EPs and OPEPs. Operational monitoring is instrumental in providing situational awareness of a hydrocarbon spill, enabling the IMT to mount a timely and effective spill response and continually monitor the effectiveness of the response. Scientific monitoring is also the principal tool for determining the extent, severity and persistence of environmental impacts from a hydrocarbon spill and for informing resultant remediation activities.

Emperor Energy has developed its Judith-2 Exploration Well OSM-BIP, which describes a program of monitoring oil pollution that will be adopted in the event of a hydrocarbon spill incident (Level 2–3) to marine waters. It is aligned to the Joint Industry Operational and Scientific Monitoring Framework (APPEA, 2021) and describes how this Framework applies to the Emperor Energy activities and spill risks in Australian waters.

The OSM-BIP is structured so that it can provide a flexible framework that can be adapted to individual spill incidents. A series of Operational Monitoring Plans (OMPs) and Scientific Monitoring Plans (SMPs) form part of the Joint Industry Framework and provide detail on monitoring design, standard operating procedures, data management and reporting. Details on personnel, resources, logistics and mobilisation times are outlined in the OSM-BIP. Table 5-25 lists the plans that are relevant to Emperor Energy's activities and the objective of each monitoring plan.

There are two types of monitoring that would occur following a Level 2–3 spill event:

- Operational Monitoring (OM) – which is undertaken during the course of the spill and includes any physical, chemical and biological assessments which may guide operational decisions such as selecting the appropriate response and mitigation methods and / or to determine when to terminate a response activity. This monitoring is additional to the activities (visual surveillance, tracking buoys, oil spill trajectory modelling and satellite tracking) performed as part of the Monitor and Evaluate Strategy (Section 5.2). The design of operational monitoring requires judgements to be made about scope, methods, data inputs and outputs that are specific to the individual spill incident, balancing the operational needs of the response with the logistical and time constraints of gathering and processing information. There is a need for information to be collected and processed rapidly to suit response needs, with a lower level of sampling and accuracy needed than for scientific purposes. For details on initiation and termination criteria for OMs refer to the OSM-BIP.

- Scientific Monitoring (SM) – which can extend well beyond the termination of response operations. Scientific monitoring has objectives relating to attributing cause-effect interactions of the spill or associated response with changes to the surrounding environment. The SMs will be conducted on a wider study area, extending beyond the spill footprint, will be more systematic and quantitative and aim to account for natural or sampling variation. For further details on the SMs refer to the OSM-BIP.

Emperor Energy will review the initiation criteria for OMPs and SMPs (Provided in Table 9-1 (OMPs) and Table 9-2 (SMPs) of the Joint Industry Operational and Scientific Monitoring Framework (APPEA, 2021)) during the preparation of the initial IAPs, and subsequent IAPs. If any initiation criteria are met, then that relevant OMP and/or SMP will be activated via the Monitoring Service Provider.

Table 5-25: Joint industry OSM plans relevant to Emperor Energy's Judith-2 Exploration Well Activities

OPERATIONAL MONITORING	RELEVANT FOR JUDITH-2 EXPLORATION WELL ACTIVITIES	SCIENTIFIC MONITORING	RELEVANT FOR JUDITH-2 EXPLORATION WELL ACTIVITIES
Hydrocarbon Properties and Weathering Behaviour at Sea	✓	Water Quality Impact Assessment	✓
Water Quality Assessment	✓	Sediment Quality Impact Assessment	✓
Sediment Quality Assessment	✓	Intertidal and Coastal Habitat Assessment	✓
Surface chemical dispersant effectiveness and fate assessment	×	Seabirds and Shorebirds Assessment	✓
Subsea chemical dispersant effectiveness and fate assessment	✓	Marine Mega-fauna Assessment	✓
Rapid Marine Fauna Surveillance	✓	Benthic Habitat Assessment	✓
Shoreline Clean-up Assessment	✓	Marine fish and elasmobranch assemblages assessment	✓
-	-	Fisheries Impact Assessment	✓
-	-	Heritage Features Assessment	✓
-	-	Social Impact Assessment	✓

5.7.2. Performance Standards

The Environmental Performance Outcome for OSM is to evaluate the impact and recovery of environmental receptors from the of the incident and response activities to guide remediation efforts following a Level 2/3 spill. The control measure, performance standard and measurement criteria for OSM is outlined in Table 5-26.

Table 5-26: OSM - Environmental Performance Standards

ENVIRONMENTAL PERFORMANCE OUTCOME	CONTROL MEASURE	ENVIRONMENTAL PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Undertake oil spill response in a manner that will not result in additional impacts to marine environment, coastal habitat, and oiled wildlife.	NOPSEMA-accepted Operational and Scientific Monitoring – Bridging Implementation Plan.	Maintain contracts with third-party provider/s to provide access to suitably qualified and competent personnel and equipment to assist in the implementation of monitoring	Contract with Monitoring Service Provider/s
		Obtain monthly capability reports from Monitoring Service Provider to demonstrate suitable resources are available throughout the activity	Monthly capability reports from Monitoring Service Provider
		Testing of OSM Monitoring Service Provider notification procedures and arrangements prior to activity commencement	Exercise and testing records
		Initiation criteria of OMPs and SMPs will be reviewed during the preparation of the initial Incident Action Plan (IAPs) and subsequent IAPs; and if any criteria are met, relevant OMPs and SMPs will be activated	Incident Action Plan/s
		Monitoring to be conducted in accordance with the Judith-2 Exploration Well OSM-BIP	Incident log and monitoring records
		Implementation of operational and scientific monitoring will comply with the	Incident log and monitoring records

ENVIRONMENTAL PERFORMANCE OUTCOME	CONTROL MEASURE	ENVIRONMENTAL PERFORMANCE STANDARD	MEASUREMENT CRITERIA
		Minimum Standards listed in Appendix A of the Joint Industry OSM Framework (APPEA, 2021)	
		Once post-spill SMP monitoring reports are drafted they will be peer reviewed by an expert panel	Monitoring records
		OMPs and SMPs will be terminated in accordance with the termination criteria provided in 9-2 and 9-2 of the Joint Industry OSM Framework (APPEA, 2021)	Incident Action Plan and Incident Log confirm OMPs and SMPs are terminated in accordance with the termination criteria provided in Tables 9-1 and 9-2 of the Joint Industry OSM Framework (APPEA, 2021)
		SCAT will be implemented under the direction of the relevant Control Agency	Incident Log
		SCAT team leader positions will be filled with personnel trained in shoreline clean-up assessment techniques.	Incident Log
		SCAT reports provided to the IMT daily detailing the assessed areas to maximise effective utilisation of resources.	Incident Log
		Shallow draft vessels are used for shoreline and nearshore operations unless directed otherwise by the designated Control Agency (e.g. Victoria DTP).	Vessel specification documentation contained in IAP
		Unless directed otherwise by the designated Control Agency (i.e. Victoria DTP) a shoreline/	IAP demonstrates requirement has been met.

ENVIRONMENTAL PERFORMANCE OUTCOME	CONTROL MEASURE	ENVIRONMENTAL PERFORMANCE STANDARD	MEASUREMENT CRITERIA
		nearshore habitat/ bathymetry assessment is conducted prior to nearshore activities.	

6. SPILL RESPONSE RESOURCES

A response of a Level 2 / 3 spill will require specialist skills for an extended period for the response to be successfully executed. The initial response IMT personnel will be fulfilled by personnel from AGR and other contracted organisations along with provision of additional support to provide complete coverage of all IMT positions.

Emperor Energy has conducted an analysis of peak IMT resourcing requirements and competencies to manage the response in the event of an extended duration 'worst case discharge' scenario, and the capacity to meet those requirements (see Appendix B for the detailed assessment).

The availability of key spill response equipment and personnel from external and mobilisation timeframes referred to this OPEP will be confirmed and related contractual arrangements and / or agreements will be in place prior to mobilisation activities commence for the Judith-2 Exploration Drilling Program.

The peak IMT resourcing requirements will be independently analysed and validated by AMOSC and will undergo testing during an oil spill response desk-top exercise. Table 6-1 provides a summary of the likely support services and organisations that Emperor Energy will utilise to successful establish a Level 2 / 3 response. This table is not an exhaustive list and will potentially be subject to change after the Judith-2 Drilling OPEP has been approved and contracts established.

The availability of key spill response plans, equipment, and personnel from external organisations (e.g. WWC, AMOSC, RPS APASA) and mobilisation timeframes referred to this OPEP will be confirmed and related contractual arrangements and / or agreements will be in place prior to mobilisation activities commence for the Judith-2 Exploration Drilling Program.

Current information about the location, quantity, and specifications of all response equipment is maintained by the equipment owners and will be confirmed as part of the testing arrangements. Oil spill response equipment is stored and maintained as per the manufacturers' specifications, and regular inspections are undertaken by the equipment owner and verified by AGR.

See Section 3.6: External Notification and Reporting for contact details.

Table 6-1: Spill Response Support Resources and Capability

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE
Internal Support Resources		
Incident Management Team (IMT)	Personnel trained in emergency response and crisis management.	IMT Activation (as described in Section 3.3).
Judith-2 Source Control Team	Established for a LOWC Level 2 and above response.	Judith-2 SCERP.
External Support Agencies		

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE
Wild Well Control - Well Control Specialist.	Third-party well control first responders: • Mobilising Well Control Specialists and Engineers to the well site and to the AGR Perth office; • Provide logistics support for well control equipment; • Planning and implementation of intervention procedures; • Planning and drilling of relief wells; and • Design and implementation of dynamic kills or other special kill procedures. Equipment: • Debris Removal Package; • Subsea Capping Stack System.	Judith-2 SCERP.
Australian Marine Oil Spill Centre Pty Ltd (AMOSC)	An associate member company in AMOSC can call on AMOSC personnel and equipment to support oil spill response. Under the AMOSPlan, companies can have access mutual aid from other industry company resources (equipment and personnel). Equipment: AMOSC has stockpiles of equipment (located in Geelong, Fremantle, and Exmouth) which include: • Booms and skimmers (offshore and nearshore); • Satellite Tracking buoys; • Hydrocarbon sampling kits; • Sorbents; • Temporary storage equipment; • Dispersant stockpiles (surface and subsea); • Shoreline Response Trailers and Kits; and • Australian Subsea First Response Toolkit (SFRT) – Perth. In addition, AMOSC has Oiled Wildlife Equipment: • 4 Oiled Wildlife Response Kits (Broome, Exmouth); • 2 x DBCA Oiled Wildlife trailers (Fremantle, Geelong); and • 2 Fauna Hazing Kits (Fremantle and Geelong).	First call as early as possible to 24-hour AMOSC Duty Manager emergency number.

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE

	Personnel:
	• AMOSC Core Group personnel (approx. 100-120 persons)
	• Oiled Wildlife personnel (2 personnel trained to Level 2-4)
	• 62 trained industry personnel
	  o 24 management course
	  o 16 responders course
	• 35 trained personnel (wildlife care groups)
	
	State and National response teams
	• 50-100 available through National Plan
	Dwyertech (Contractual)
	• 2 personnel in NZ responding within 24 hours (call of contract)
	Supporting Organisations Nationally
	
	Phillip Island Nature Park VIC
	• ~50 PINP staff -collection/facility ops/rehabilitation
	• ~45 volunteers -collection/facility ops/rehabilitation
	• ~20 staff – animal feeding
	• 5 PINP staff – wildlife emergency response Inc. cetacean stranding/entanglement etc
	• 17 PINP staff – IMT trained
	Blue Planet Marine WA
	• 10-20 personnel
	
	Other Services
	
	University of California - Davis
	• Best endeavours to respond - specialist advice, peer review, support – planning, preparedness and response
	International Bird Rescue
	• Best endeavours to respond – 4 OW response personnel
	Massey University
	• Best endeavours to respond – 4-6 OW response personnel
	
	Supporting Organisations
	
	• Blue Planet
	• Oiled Wildlife Response Kits (Fremantle, Geelong);
	• Oiled Wildlife Response Containers (Fremantle, Geelong); and	

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE
	• Trained aerial/vessel observers. Other Services • Oil spill response training; • Fixed Wing Aerial Dispersant Contract (FWADC); • Spill fates, weathering, and trajectory modelling; • Hindcast modelling (OSTM); • ADIOS Modelling; • Aerial Surveillance; • Satellite imagery (KSAT)	
Australian Maritime Safety Authority (AMSA)	Request for assistance can be made through activation of the National Plan. Equipment: AMSA maintains nine strategic equipment stockpiles (NSW locations include Fremantle, Exmouth, Dampier, and Broome), including the following resources: • Aerial surveillance support; • Dispersant stockpiles; • 2 × Oiled Wildlife Response Kits (Fremantle, Karratha); • Oiled Wildlife Response Containers (Dampier, Darwin, Townsville, Karratha, Tasmania); and • OSTM Tracking buoys. Personnel and Services: • Advisory services and response personnel; • Spill fates, weathering, and trajectory modelling; • Satellite/optical imagery.	A request should be made initially through the Environment Protection Duty Officer via the Emergency Response Centre. This request must be followed by written confirmation within three hours of the verbal request.
Aircraft providers	Emperor Energy is capable of contracting on an 'as needs' basis with aviation. Contracts will not be entered into prior as this does not guarantee supply or impact the mobilisation times.	First call as early as possible to 24-hour AMOSC Duty Manager emergency number.
Vessel providers	Emperor Energy is capable of contracting on an 'as needs' basis with a range of marine providers including within the region. Companies able to provide dive support vessels and divers. Emperor Energy will engage vessel brokers to assist in contracting vessels during a response.	Source Control Emergency Response Plan.

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE
ROV providers	Emperor Energy will have a contract in place with to provide ROV's and ROV project Management Services. Other specialist companies that can provide ROVs include Subsea 7, Deeplink, Intervention Engineering, Neptune Marine Services, Tamboritha and Total Marine Technology.	Judith-2 Source Control Emergency Response Plan.
Licensed Waste Management Contractor (to be contracted)	A licensed Waste Management Contractor will be contracted prior to commencement of the drilling program, and the scope will include management of waste in the event of an oil spill, in accordance with MARPOL 73/78 Annex V – Garbage, relevant Commonwealth and State/Territory laws and regulations.	Judith-2 Exploration Drilling Project HSE Plan.
Mutual Aid Resources	AEP MoU: Mutual Assistance for transfer of drilling units for emergency situations.	Judith-2 Source Control Emergency Response Plan.
Operational and Scientific Monitoring	Emperor Energy has a contract in place with an OSM Services Provider for OSM support. The contracted OSM Services Provider will provide the monitoring services in the event of an emergency event. The OSM Services Provider will resource the required OSM Implementation Lead, Monitoring Personnel (MP) and equipment, as outlined in the Judith-2 OSM-BIP.	Review initiation criteria of OMPs and SMPs (provided in Table 9-1 (OMPs) and Table 9-2 (SMPs) of the Joint Industry Operational and Scientific Monitoring Framework) during the preparation of the initial Incident Action Plan (IAPs) and subsequent IAPs; and if any criteria are met, activate relevant OMPs and SMPs via the process outlined in Section 12 of the Judith-2 Exploration Well OSM-BIP.
Victorian State Support Agencies		
Victorian Department of Transport and Planning (DTP)	Victoria DTP has the resource capability to provide support if required for commonwealth water incidents and fulfil the Control Agency role for spills occurring within State waters. Victorian marine pollution response equipment (stockpiles) is strategically located around the state. Victoria's four commercial port operators have emergency marine pollution response arrangements in place for their designated waters.	For all incidents within State Waters and Commonwealth Waters adjacent to Victorian State waters via activation of the State Controller Maritime Emergencies (SCME).

SUPPORT RESOURCE	SUPPORT SERVICES CAPABILITY	ACTIVATION PROCEDURE
Victorian Department of Energy, Environment, and Climate Action (DEECA)	DEECA is the lead agency for responding to wildlife impacted by marine pollution events. DEECA, along with support agencies (such as Parks Victoria and Philip Island Nature Park) will assess the welfare needs of wildlife, and lead wildlife response activities.	Upon the identification of any wildlife that has been impacted or may be impacted during the incident.
Tasmanian State Support Agencies		
Tasmanian Environment Protection Authority (Tas EPA)	Tasmanian Environmental Protection Authority (EPA) is the advisory agency and management authority for prevention and mitigation, preparedness, and response for marine pollution incidents within Tasmania under the management of the Tasmanian Emergency Management (TEM).	For all incidents within State Waters and Commonwealth Waters adjacent to Tasmanian State waters via activation of the State Duty Officer.
Tasmanian Department of Natural Resources and Environment (NRET)	The Wildlife Health and Marine (WHAM) division of the Department of Natural Resources and Environment Tasmania (NRET) (formerly DPIPWE) is responsible for identification of the priorities and procedures for the rescue and rehabilitation of oiled wildlife within Tasmania.	Upon the identification of any wildlife that has been impacted or may be impacted during the incident.
New South Wales State Support Agencies		
NSW Maritime	The Port Authority of NSW is the executive director of NSW Maritime and will determine which agency will assume the Control Agency role. NSW Maritime or the Port Authority of NSW will be responsible for resourcing and conducting the response withing State Waters.	For all incidents within State Waters and Commonwealth Waters adjacent to NSW State waters via activation of the Marine Pollution Controller.
NSW Department of Primary Industries	The NSW DPI is responsible for coordinating agriculture and fisheries services. NSW DPI has a MOU with multiple organisations that will provide animal services resources to assist in an emergency response under the coordination of NSW DPI.	Upon the identification of any wildlife that has been impacted or may be impacted during the incident.
NSW Environment Protection Authority (EPA)	The NSW EPA is the coordinating agency for the Environmental Services Functional Area (EnvSFA). The EnvSFA is responsible for providing advisor(s) to give expert scientific/technical advice and/or environmental personnel to support the response for protecting the environment. The EPA assists with environmental impacts, identification of hazardous material, provisions or sourcing environmental monitoring equipment, supporting emergency wildlife response, advice for clean-up and disposal of hazardous waste, and suggestions of agencies to involve.	For all incidents within State Waters and Commonwealth Waters adjacent to NSW State waters. NSW Maritime will be responsible for the activation.

7. PLAN REVIEW AND TESTING ARRANGEMENTS

7.1. Plan Review

Given the short duration of the activity, this OPEP shall only be revised in the event of:

- Regulator, Control Agency and or Statutory Agency feedback.
- Project delay which may result in the need for a legislative review.
- Changes required after testing the arrangements or a spill event.
- Altered contractual arrangements.
- Routine information updates (i.e., contact details change).

Any revisions to this OPEP will be reviewed using the Emperor Energy Management of Change process as detailed in Section 9.9.2 of the EP.

7.2. OPEP Training and Testing

In accordance with Regulation 22(14) of the OPGGS(E) Regulations, the response arrangements will be tested:

- When they are introduced;
- When they are significantly amended;
- Not later than 12 months after the most recent test;
- If a new location for the activity is added to the EP after the response arrangements have been tested, and before the next test is conducted – testing the response arrangement in relation to the new location as soon as practicable after it is added to the plan; and
- If a facility becomes operational after the response arrangements have been tested and before the next test is conducted – testing the response arrangements in relation to the facility when it becomes operational.

As required by the Environment Regulation 22(12) the testing must relate to the nature and scale of the risk of oil pollution relevant to this exploration drilling activity. A Judith-2 specific Desktop and Activation Exercise will be undertaken prior to the drilling program to test / validate the OPEP and contractor ERPs and SOPEPs for emergency response scenarios detailed in Section 6 of the EP. A LOWC response exercise will occur 3 months prior to earliest spud date to allow for lessons learnt to be incorporated into the OPEP and supporting documents.

The objectives of the exercises will be to assess:

- Adequacy of the ERT and IMT to facilitate a credible response;
- Adequacy of the OPEP and associated plans;
- The peak IMT resourcing requirements;
- Notification and communication arrangements;
- Engagement of external parties identified to support the response; and

- External Agency liaison and management.

An experienced facilitator will be used for the exercises. After the exercise, the facilitator will hold a debrief session during which the exercise is reviewed, and lessons learned and areas for improvement are identified. Observations during this exercise will be noted and reported (informally and formally) by the facilitator to improve the response in an actual event. A written report, with improvement opportunities, will be provided to Emperor Energy following the exercise.

All personnel involved in the exercise will attend the post-exercise de-briefing and receive the formal report. Findings from the exercise will be recorded and tracked to closure to ensure continual improvement. The report and evidence of action close out will be included in the End-of-Activity Environmental Performance Report. Any learnings, findings, or recommendations identified as part of the testing exercises will be addressed and incorporated into the relevant emergency response plans and procedures to ensure they remain effective. Undertaking the exercises 3 months prior to the activity commencement ensures there is sufficient time to manage responses to any recommendations or outcomes of the testing prior to the activity commencing.

OPEP training and testing arrangements appropriate to the nature and scale of Emperor Energy's activities are included in Table 7-1.

Table 7-1: Judith-2 OPEP Training and Testing Arrangements and Requirements for the CMT, MIT, and Source Control IMT

TRAINING/ EXERCISE/ TEST	OBJECTIVES/SUMMARY	EXERCISE TYPE	DURATION	TEAM
CMT / MIT				
Training	Crisis Communication Training focused on notifications and communications protocols. Test the call out and interface functionality between PIO and CMT Crisis Communications Department.	N/A	2 hours	CMT
Training	Familiarisation sessions with AMOSC, Source Control and OSM Services Providers call-out, mobilisation and integration.	N/A	~4 hours	Perth IMT Command and Section Chiefs
Training and Exercise	Incident Control System (ICS) refresher training and IMT duties related to Judith-2 OPEP and/or associated emergency response training exercises as appropriate for IMT roles.	Tabletop	4 hours	AGR Core IMT
Exercise	Check currency of emergency contact numbers. Test IMT Call-Out / Messaging Process for key contacts.	Notification	30 minutes	IMT/CMT
Training	Functional specific training / workshops to validate IMT roles & responsibilities specific to oil spills.	N/A	1-2 hours each	IMT Command, Section Chiefs and Branch Directors

TRAINING/ EXERCISE/ TEST	OBJECTIVES/SUMMARY	EXERCISE TYPE	DURATION	TEAM
Exercise	Judith-2 LOWC exercise with focus on initial reactive phase response actions. Test notifications of internal / external supports including OSM Services Provider. 3 months prior to activity commencement. Equipment / personnel logistics plans and charters etc (including COVID19 arrangements) to be tested if applicable. Validate familiarity with response procedures of personnel involved in the Activity.	Tabletop	½ day	CMT/ IMT / AMOSC / OSM Services Provider.
Exercise	Communication & notification to test call-out response from MODU, including internal and external support.	Tabletop	30 minutes	IMT/ MODU ERT / IMT
Source Control IMT				
Training / exercise	Test of SCERP logistics plans to confirm vessel and MODU availability and forecast of likely changes to this during the duration of the Activity. Prior to activity commencement.	Tabletop	2 hours	Source Control Provider IMT
Exercise	Communication & notification to test call-out response from MODU, including internal and external support. Prior to activity commencement.	Tabletop	30 minutes	Source Control IMT

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APPENDIX A: FORMS

The following forms are available on AGR's Network Drive:

- POLREP & SITREP
- Status Board Form 1 - Incident Details
- Status Board Form 2 - Initial Assessment
- Status Board Form 3 – Notifications and Contacts
- Status Board Form 4 - Initial Actions
- Status Board Form 5 - Resources at Risk / Protection Priorities / Strategies
- Status Board Form 6 - Incident Action Plan
- Status Board Form 7 – Tactics
- Status Board Form 8 – Resources
- Status Board Guidance
- Sampling Guideline Form

APPENDIX B: EXPANDED IMT RESOURCING ROLES & RESPONSIBILITIES

GENERAL

The IMT structure is designed to be scalable to meet the particular requirements of any credible spill scenario during the Judith-2 drilling campaign program. The expanded (peak) IMT structure to manage the 'worst case' scenario due to a LOWC. The IMT will use an ICS structure and a planning process to execute field activities consistent with the requirements of this OPEP, including for source control. To provide Emperor Energy with assurance of adequate personnel availability for the peak IMT structure, the associated maximum IMT resourcing requirements will be evaluated in consultation with AMOSC.

The evaluation scope included the following:

- Provision of human resources to the State Control Agency's (e.g. Victoria DTP) IMT that can act as a link to Emperor Energy's incident operations, provide logistics / equipment / human resources support to the state, and technical expertise / information.
- Scalability that would allow the IMT the capacity and capability to mount operations that meets the range of incident scenarios described in the OPEP, and more broadly the EP. In particular, this means sustaining arrangements for a period of many weeks to meet the IMT tasking demands should a LOWC occur. 'Peak' and 'sustained' manning levels need to be identified, as well as recommendations for competency building for persons undertaking those roles.
- Gaps between need and availability are to be highlighted and solutions proposed.
- For the oil spill response activities described in the OPEP, these are able to be undertaken by AMOSC, at the direction of the IMT. Similarly, the source control / well intervention will activities undertaken by Emperor Energy contracted Source Control Contractor, Operational & Scientific Monitoring services supported by the OSM Services Provider, response services by AMOSC, at the direction of the IMT.

JUDITH-2 IMT REQUIREMENTS

To implement a successful oil spill response, upon notification of an incident, Emperor Energy will stand up its IMT which is then required to progress through a number of stages:

- Establish the severity of an oil spill incident, including an assessment of the possible environmental consequences and options to reduce these consequences;
- Draft an incident action plan that details the spill response strategies to be put in place in the field;
- Provide oversight and execute the plan;
- Review the ongoing implementation of the plan for success against incident objectives and Emperor Energy's environmental commitments (contained within its permissioning documents); and
- Continue or cease field incident response operations, depending on level of success against objectives.

These stages are detailed above in Section 2 of this OPEP. Section 4.1 also outlines the pre-determined spill response strategies identified by the preliminary strategic NEBA which will be put in place in the event of a spill. These pre-determined strategies are based on:

1. Careful consideration of the likely fate and weathering of the expected oils that may be spilt; and
2. The field operations that can be safely and proportionately put in place to minimise/prevent environmental damage.

By determining:

- The maximum field capacity that could be implemented to execute chosen oil spill strategies for the worse case discharge;
- The incident management team tasks required to determine, support and execute those strategies; and
- The duration of the response,

the IMT 'need' can be determined. Against this need, working within Emperor Energy chosen IMS, resources pools can be assigned from Emperor Energy, AGR, AMOSC, Source Control Contractor, OSM Services Provider and other parties.

OPEP PRE-DETERMINED FIELD CAPACITY

Given the hydrocarbon properties of the worst-case scenario (condensate), and the outcomes from the oil spill modelling, the primary field operations are expected to be:

- Source Control;
- MES;
- Shoreline Protection and Deflection
- Shoreline Clean-up;
- Waste Management; and
- Execution of the Judith-2 OSM-BIP.

The only likely secondary strategy that may be considered is an oiled wildlife response if monitoring indicates that wildlife may be or have been impacted during a response, which would be in support of the relevant State Government Department.

Other strategies were considered through the Judith-2 OPEP / EP development process, however, have been disregarded through the Emperor Energy strategic NEBA and ALARP assessment process.

Table 8-1: Peak field resourcing requirement

STRATEGY / TACTICS	PEAK FIELD CAPACITY DESCRIPTION	PROVIDER	TIME TO INITIATE	PEAK RESOURCING
Primary Response Strategies				
Source Control				
• Emergency BOP Intervention (semi-sub MODU)	• Relief Well Group • Well Kill Group • SIMOPS Group	Contracted Source Control Provider	immediate	Week 3

STRATEGY / TACTICS	PEAK FIELD CAPACITY DESCRIPTION	PROVIDER	TIME TO INITIATE	PEAK RESOURCING
• Debris Clearance (semi-sub MODU) • Capping Stack (semi-sub MODU) • Relief Well • Subsea Dispersant (semi-sub MODU)	• Decontamination and Demobilisation • Group • Engineering Support Group • Well Containment Group • Site Survey Group • BOP Intervention Group • Debris Removal Group • Capping Unit • Subsea Dispersant Group.			
MES				
• Vessel surveillance • Aerial surveillance • Overflights of the spill • Trajectory modelling • Tracker Buoy data • Satellite Data	• 2 x daily overflights of the oil spill. • 1 x aerial observers, with reporting and data production requirements (supported by AMOSC remote resources).	• Aerial observers & remote resource support – AMOSC staff & CG. • Rotary Wing Aircraft and vessels – Emperor Energy. • Fixed Wing aircraft via AMOSC contracts.	Immediate	Day 2
Shoreline Response				
Protection and Deflection: • Nearshore Booming • Nearshore removal Shoreline Clean-up: • Pre-impact debris removal • Flushing • Surf Washing • Shoreline Removal	• 1 x Shoreline Program Coordinator (AMOSC) • 2 x Shoreline Protection & Deflection Teams (4 x personnel) • 2 x Shoreline Clean-up Teams (4 x personnel)	• Trained responders and resource services – AMOSC staff & CG, in consultation with the relevant State Control Agency.	Immediate	Week 1
Operational and Scientific Monitoring (OSM)				
Refer to Emperor Energy Judith-2 Exploration Well OSM-BIP				

STRATEGY / TACTICS	PEAK FIELD CAPACITY DESCRIPTION	PROVIDER	TIME TO INITIATE	PEAK RESOURCING
Secondary Response Strategies				
Oiled Wildlife Response (OWR)				
• Reconnaissance • Hazing/Deterrence • Translocation • Wildlife capture • Triage • Cleaning • Rehabilitation • Release	• 1 x reconnaissance team (2 X personnel). • 1 x collection team (4 x personnel). • 1 x FOB. Coordinator (supported by an AMOSC remote resource)	• Oiled wildlife strike team – AMOSC. • Oiled wildlife response equipment – AMOSC. • Aircraft and / or vessel – Emperor Energy. • Overseen/directed by the relevant State Control Agency Department.	Scenario specific	Dependent on impact

STAGING OF FIELD AND IMT OPERATIONS

The IMT will work to immediately execute the primary strategies above should a spill occur:

- MES planning for field activities (aerial observation) are to take place immediately, supported by deterministic OSTM (hydrocarbon fate and weathering modelling), the launching of a satellite tracking buoys, satellite imagery, and shoreline clean-up assessment (if required).
- Source Control planning and field activities are to commence immediately, directed by the actions detailed in the Judith-2 Source Control Emergency Response Plan (SCERP).
- OSM planning and field activities are to commence immediately, directed by the actions detailed in the Judith-2 OSM-BIP.

The preparedness stochastic oil spill modelling and overlaid zone of potential impact suggests that only very small quantities of entrained oil will impact state waters, and that the likelihood of this occurring is very low.

Should state waters impacts (or threats to state waters) occur, the IMT will consider and execute the following, working under the relevant State Government Department:

- Shoreline protection and deflection activities;
- Shoreline clean-up activities; and
- OWR field activities, comprising the provision of staff two x field teams and an FOB commander.

For field oil spill response assets, the operational response will require selected use of Tier 2 resources, all of which are available within Australia, and are able to be coordinated / provided for using AMOSC for equipment, people and technical services. Tier 3 providers (Emperor Energy's Source Control Contractor) will be relied upon for source control activities.

IMT SIZE AND TASKING REQUIREMENTS TO MEET JUDITH-2 WCD SCENARIO

Based on the needs detailed above, the IMT will be required to:

- Activate and mobilise IMT resources to meet the scale of the response,
- Determine, resource & direct:
  - Source Control;
  - MES;
  - Shoreline Protection and Deflection;
  - Shoreline Clean-up;
  - Waste Management;
  - Oiled Wildlife Response (if required); and
  - OSM activities.
- All of the above are undertaken by contracted external organisations which require activation;
- Coordinate and support the relevant State Control Agency (i.e. Victoria DTP) and provide the staff to meet the State IMT Industry Guidance Note (IGN) requirements if the spill enters State waters.

The IMT will implement this using the IAP development and planning process as outlined under Section 4.2 of the OPEP. The IMT will establish the framework outlined in Section 3.5 of the OPEP. The IMT and the field operations will run for the duration of the response, so has a requirement to sustain these operations for up to 11 weeks (relief well source control completion timeframe). The core constant functional sections of the IMT during the response will be those outlined below in Table 8-2: 0 .

Table 8-2: 0 Core IMT Functions

FUNCTION	SUB-FUNCTION	OUTPUTS	OUTCOMES
Incident Control	Incident Command (IC) and Deputy IC	Safe and efficient response structure and organisation.	A response is put in place that meets the requirements of Judith-2 OPEP (EPO's & EPS). People and process in place that meets the above.
	Safety Officer	Development and implement a plan that assesses and manages the safety risk of the response.	Safety risks assessed and mitigation plans/processes in place.
Public Information (sits between IMT and CMT)		Develop messaging and manage external information flows to stakeholders and members of the public.	Relevant and timely public information distributed across all relevant platforms.
Liaison Officer		External/Government/stakeholder affairs are managed.	Key stakeholders (government, regulatory and community) are informed of the incident and have their

			concerns acknowledged and addressed by the response organisation.
Planning	Planning Section Chief	Drive the planning process that develops the IAP. Tracking resources. Overseeing the Enviro, Situation Units, Forecasting and OSM functions.	Response analysis and planning that fits best the scenario (oil type, weather, fates, locations, sensitivities), to mitigate the consequences most effectively.
	Environmental Unit	Strategies are chosen consistent with good global practice, accounting for the benefit and dis-benefits of each strategy. Assessment of environmental risk.	Daily NEBA analysis. Analysis of the resources at risk. Deployment of MES strategies and technical advice into the IMT. Deployment of OSM Services Provider
	Situation Unit	Common operating picture developed – situational assessment (intelligence)	Common Operating Picture established via GIS system and promulgated to stakeholders.
	Trajectory Forecasting	Using modelling data, determine the likely trajectory of spilt oil.	Deterministic modelling of spilt hydrocarbons in the ocean.
	OSM Implementation Lead	Data that tracks the environmental impacts of spilt oil is collected, analysed, and notated. Operational monitoring programmes are used to monitor and vary the IAP.	Deployment of OSM Services Provider.
Operations	Operations Section Chief	Develop tactics to execute strategies in the field; run the operations in the field. Provide technical input to the production of the next operational period IAP. Draft the daily operational orders for each field team (ICS204, 204s and 204e or equivalences.) Provide tech input to the safety plans.	Run the current operations in the field – the execution of the IAP for that operational period.
	Shoreline Response Team Lead	Develop tactics to execute shoreline response strategies. Collaborate with relevant State Control Agencies to establish shoreline tactics (including protection priorities) to be	Develop and run the Shoreline Response Plan under the direction and in collaboration with the

		input to the production of the next operational period IAP. Ensure collaboration with the Environment Unit to identify protection priorities.	relevant State Control Agency.
Logistics	Logistics Section Chief	Acquire resources, operational locations and materials that match the operational need, as sought by AMOSC and RPS APASA, and WWC if needed.	'For-purpose' resources are acquired and deployed as needed, consistent with the IAP.
	Supply Unit (aviation & marine)	Platforms for response operations are contracted to Emperor Energy consistent with IAP requirements.	Aviation and marine platforms are sourced and provided.
	Facilities & Ground support (Operationally based)	Coordinate the delivery of field based logistical support that supports the operational responders.	Field logistics are coordinated.
Finance & Administration		Tracks all costs and provides financial oversight consistent with the control agency requirements.	Financial and administrative management process in place for the response.

MANNER OF THE IMT

Delivery of the above tasks, and the 'deep dive' into operational outputs will be undertaken using a remote, virtual IMT. It will be led by AGR staff and consultants including environmental consultants, supported by remote teams from AMOSC based in Geelong / Fremantle, and WWC based in Singapore, Houston, Malaysia & Perth. Outputs and direction from this group will be provided to the FOB (Victoria).

Specific tasking will be devolved to subject matter expert third parties, and then as close to operational tasking as possible. In practical terms, this means that the IMT will:

- Determine and set high level response objectives;
- Build picture of situational awareness;
- Determine the environmental spill risk consequences and response priorities;
- Activate contractual arrangements with AMOSC, WWC and RPS;
- Provide direction setting and resources (by request) to those organisations; and
- Monitor the achievement of objectives.

Diagrammatically, these relationships are shown in Figure 8-1: Judith-2 IMT Structure:

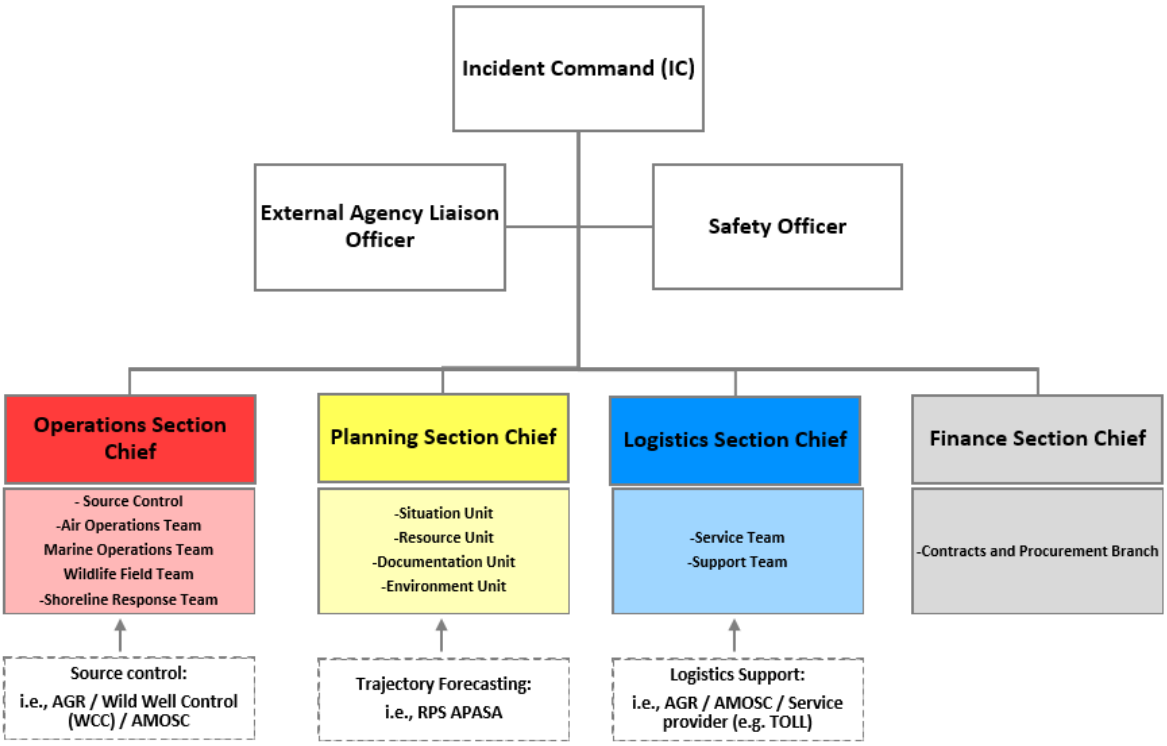

Figure 8-1: Judith-2 IMT Structure. Dashed boxes indicate separate organisation providing critical services to Emperor Energy.

For control, planning and operations:

The IMT will prepare an initial incident briefing sheet that comprises:

- Incident maps;
- Summary of Incident & Current Actions;
- Current Response Organisation;
- Resources Summary; and
- Site safety & controls.

They will also be completing the high-level components of the IAP that includes Incident Briefing and Response Objectives. This will be undertaken by the IMT IC, Planning, Operations, and Logistics Officers who are employees / contractors of AGR, contracted by Emperor Energy to undertake the drilling campaign. Intelligence (Environmental) support will be provided from either an Environmental Contractor or AMOSC. High level planning and operational functions will be undertaken by this group, with discipline specific planning and operations undertaken by AMOSC for specific field spill response activities, RPS APASA for trajectory forecasting, OSM Services Provider for OSM support, and WWC for source control and well intervention.

For Logistics functions:

WWC will undertake their own logistics planning and execution for any emergency response. AMOSC and RPS APASA will rely on the provision of heavy logistics (aircraft, vessels, operating FOBs) to be provided for by the IMT. De-confliction or cross-purpose coordination of assets sharing is to be undertaken by the IMT. Communications and IT functions, facilities management, sustenance and messing will be provided for by

Emperor Energy /AGR's Business as Usual (BAU) requirements. The IMT Facilities & Ground Support lead (based in the field) will provide field support & coordination.

For media and public information:

Emperor Energy will task this to a dedicated specialist third party, who will work with Emperor Energy's CMT, the IC, and the relevant State Control Agency's (i.e. Victoria DTP) public information section to provide up to date public statements. This third party will also provide support to field (local government) LO/PIO needs, with field personnel assigned to the FOB as needed.

For the initial State LO function:

This will be provided initially though the placement of Emperor Energy contractors into relevant State Control Agency's (i.e. Victoria DTP) (from AGR or AMOSC), escalating to serve the needs of the State Control Agency as needed. For ongoing responses, remote support to the State Control Agency IMT may also be provided from the AMOSC Core Group. Remote support to Federal Government LO agency needs will be served remotely through direct communication with the IMT IC. Should the response escalate, a senior AMOSC resource can be used to service the need of the OPICC in conjunction with the IMT IC.

For oil spill response operations:

AMOSC will be issued (under contract) a request to stand up its IMT and response operations commensurate with the objectives at the time. The IMT will communicate to AMOSC its objectives via the IAP Response Objectives. These may include aerial observation and oiled wildlife response and other response strategies as required. To undertake these operations, AMOSC will use its systems to undertake planning and execution of operations that will be outlined in the taskings and operational daily orders, the air operations plan for aerial observation), the Site Safety plan specific to the operations. If required, AMOSC will develop and execute the marine operations plan. OWR plans will be undertaken with the relevant State Departments.

AMOSC will also undertake the NEBA, and environmental analysis, in conjunction with the IMT Planning & Environment/Intelligence Officer.

For Source control operations:

Emperor Energy will stand up WWC, who will source and provide all elements under the Source Control Operations Function.

For implementation of the OSM-BIP:

Emperor Energy will stand up the OSM Services Provider, who will execute the field based OSM activities. The outputs and control of this will be through the IMT Planning/Environment Function.

PEAK MANNING LEVELS – EMPEROR ENERGY

Based on the specific workloads required to run the Emperor Energy peak field operations by the remote IMT, the number of personnel required is significantly less than a 'normal', oil or liquid petroleum spill, due to the scope of the predicted operations. Only daytime operations will be in place; Source Control activities will run around the clock based on the criticality of the task at the time and be run by WWC remotely - the need for this can be met remotely by the IMT or using 'on-call' arrangements, rather than a fully staffed, 24/7 IMT.

There are four distinct work groups providing services remotely, under the umbrella of the IMT:

- The IMT (core);

- The AMOSC IMT and operational functions;
- The WWC IMT and operational functions; and
- The RPS IMT and operational functions.

'Peak Resourcing' occurs in two stages – the first being the initial stage when situational awareness is required, external initial briefing to government agencies, risk analysis, and then initial IAP development and objective setting occurs. This would occur in the first two – five days of operations, during the re-active phase of the response, and before requirements settle into a steady state. After this phase, planning function units could be combined and the AMOSC IMT could pick up these tasks.

In the occurrence of State Water impact, deployment of resources to the State Control Agency's (i.e. Victoria DTP) IMT may be required and will be guided by the trajectory and forecasting of oil spill, as determined in the initial stages. Surging for this stage will be based on feedback from the State Control Agency's IMT at the time of the spill, and Emperor Energy is ready to meet this need.

When analysing the numbers of staff required for each of the functional roles in the IMT, and the pools of resources available for those roles, it is clear that Emperor Energy has access to sufficient resources to fill these roles. This includes in the very unlikely outcome that the full complement of LO's is called upon to assist in the State Control Agency IMT (e.g. Victoria DTP). Sufficient resources have been identified to fill the roles required of the IMT for the first 'swing' of fourteen days, including all State Control Agency IMT (e.g. Victoria DTP) positions.

After 14 days, a second swing shift of IMT responders will offer relief. These will be drawn from

- AGR personnel;
- AGR's Consultancy Services database;
- AMOSC Core Group;
- Third-party Environmental SMEs ; and
- RPS APASA.

The IMT Peak Resourcing Requirements is summarised in Table 8 below.

Table 8-3:0 Judith-2 Peak IMT capacity and capability

IMT Functional Role	Day shifts need	Night shifts need	Total need	Pool size (location)	Source	Sufficient
Judith-2 IMT						
Incident Commander	1	1	2	6 (6 AGR Perth)	AGR Staff / Consultants	Yes
Safety Officer	1	0	1	4 (4 Perth)	AGR Consultancy Services Pool	
Public Information Officer	1	0	1	1	3rd party service provider	
State Control Agency and NOSPEMA LO (initial)	2	0	2	3	AMOSC CG.	
Operation Officer Source Control	1	1	2	2 (AGR Perth)	AGR Consultancy Services	
Planning Officer	1	1	2	5 (4 AGR Perth, ! AGR Melbourne)	AGR Staff / Consultants	
Environmental Unit	1	0	1	2 (Perth based)	Environment Consultant provider	
Trajectory Forecasting	1	0	1	1 (3rd party)	RPS APASA	
Situation Unit	1	0	1	2 (Perth based)	3rd party service provider	
OSM Implementation Lead	1	0	1	1 (OSM Services Provider)	OSM Services Provider	
Logistics Officer	1	0	1	3 (3 AGR Perth)	AGR Staff / Consultants	
Source Control Logistics Lead	1	0	1	1 (WWC)	WWC	
Supply Unit (aviation & marine)	1	0	1	2 (1 AGR Perth, 1 Field based AMOSC CG)	AGR Consultancy Services Pool / AMOSC	

Facilities & Ground Support	1	0	1	1 (AGR)	AGR Staff / Consultants	
F&A Officer	1	0	1	2 (2 AGR Perth)	AGR Staff / Consultants	
Administrative support (to sections above)	2	0	2	4 (4 Admin support from AGR Perth)	AGR Staff / Consultants	
Emperor Energy Totals (start state – 2 x LO)	**19**	**4**	**23**	**43**	-	Yes
State Control Agency (i.e. Victoria DTP)	3	0	3	From pool surplus and then AMOSC as required.		
Emperor Energy Total	**22**	**4**	**26**	**43**	-	Yes
AMOSC IMT						
AMOSC Lead	1	0	1	3 (2 virtual)		Yes
Planning & Environment Function	1	0	1	1 (35 – AMOSC CG Mgt)		
Operations Function	1	0	1	1 (5 – AMOSC Staff)		
Shoreline Response Team Lead	1	0	1	1 (5 – AMOSC Staff)		
Shoreline Response Team	8	0	8	8 (>40 – AMOSC CG Ops)		
Response Technical Specialist	1	0	1	1 (5 – AMOSC Staff)		
WWC Source Control IMT – as per Judith- 2 SCERP						

JUDITH-2 IMT COMPOSITION

As primary contractor to Emperor Energy, AGR Australia forms the bulk of the IMT as follows:

AGR Australia:

- Incident Command (IC) - 3 x AMOSC equivalent IMO3 trained personnel;
- Planning Section – 3 x AMOSC equivalent IMO2 trained personnel;
- Logistics Section – 3 x AMOSC equivalent IMO2 trained personnel;
- Operations - 3 x AMOSC equivalent IMO2 trained personnel;
- Finance Admin - 2 x AMOSC equivalent IMO2 trained personnel.

Surge Finance and Administration support requirements will be met through AGR's Perth based staff (non-IMO trained). AGR Consultancy Services

AGR has an Australian Consultancy Services division that sources personnel for the Australian and Asia Pacific Oil and Gas (O&G) Industry. Consultancy Services maintains a personnel database of experience of O&G professionals including multiple options from the disciplines:

- Drilling Managers;
- Drilling Superintendents;
- Senior Drilling Engineers;
- Logistics Coordinators;
- HSE Personnel.

AMOSC have advised that surge / backup pools of human resources IMO II /IMO 3 equivalent just-in-time training can be delivered with the above pool as required prior to undertaking IMT functions within the peak IMT requirements timeframe (14 days). This may be delivered remotely, with competence validation (in person) prior to entering the IMT. The number of additional surge personnel through this mode is a minimum of 6 x Incident Command (IC)(AMOSC equivalent IMO3) and 12 x Section Chief Roles (AMOSC equivalent IMO2) or a total of 18 personnel.

State Control Agency IMT Support

The requirements by the relevant State Agency for the petroleum titleholders to provide IMT personnel the State Control Agency's IMT will be met initially with a Liaison Officer (LO) from AGR's Perth team with further requirements from the AMOSC Core Group as determined by whether the spill reaches into State Waters.

IMT COMPETENCY REQUIREMENTS

Table 8-4: Expanded IMT Role Competency Requirements

IMT ROLE	TRAINING / INDUCTIONS			
	Judith-2 OPEP induction	Oil Spill Response Command and Control (IMO Level III / PMAOIR 418 / ICS 300 Equivalent / OPRED OPEP3)	Oil Spill Response Management (IMO Level II / PMAOIR 320/322 / ICS 200 Equivalent / OPREP OPEP2)	Emergency Response Exercise Training / Workshop
Incident Command	✓	✓		✓
Deputy Incident Command	✓	✓		✓
Safety Officer	✓			
Federal Liaison Officer	✓		✓	✓
State Liaison Officer	✓		✓	✓
Planning Section Chief	✓		✓	✓
Documentation	✓			✓
Situation unit Lead	✓		✓	✓
Trajectory Forecasting	✓			✓
Response Technical Specialist	✓		✓	✓
Operations Section Chief	✓		✓	✓
Air Operations Branch Manager	✓		✓	✓
Marine Operations Branch Manager	✓		✓	✓
Oiled Wildlife Response Commander	✓		✓	✓
Shoreline Response Team Lead	✓		✓	✓
Source Branch Director	✓		✓	✓
Source Control Deputy Director	✓		✓	✓

IMT ROLE	TRAINING / INDUCTIONS			
	Judith-2 OPEP induction	Oil Spill Response Command and Control (IMO Level III / PMAOIR 418 / ICS 300 Equivalent / OPRED OPEP3)	Oil Spill Response Management (IMO Level II / PMAOIR 320/322 / ICS 200 Equivalent / OPREP OPEP2)	Emergency Response Exercise Training / Workshop
SCER Advisor	✓		✓	✓
Logistics Section Chief	✓		✓	✓
Source Control Logistics Lead	✓			✓
Supply Unit Lead	✓			✓
Facilities and Ground Support (Victoria)	✓			✓
Communications Unit (IT) Manager	✓			
Finance Section Chief	✓		✓	✓
Procurement Unit (Marine and Aviation Contracting)	✓			
Compensation Unit Administration & Records	✓			

EMPEROR ENERGY CMT COMPOSITION AND COMPETENCY REQUIREMENTS

The Emperor Energy CMT is composed of members of the Senior Emperor Energy Management Team and supporting resources, with additional support roles filled by representatives from contracted service providers. The Senior Management of Emperor Energy consists of seasoned industry professionals with a combination of complementary technical and commercial experience.

Roles and Responsibilities

Emperor Energy resources have been identified for CMT roles with responsibilities defined below.

CMT Roles

Crisis Management Team Leader

The CMT Leader role will be filled by either of the two Executive Directors of the company who are the senior-most managers and Directors in the business. The Executive Directors are best placed to define the potential impact to the business by an MAE and ensure the response is appropriate and timely. The

Executive Directors have the delegated authority from the Board of Directors to make decisions (including financial commitments) required in response to emergency events.

The CMT Leader is responsible for:

- Directing the company's response to a crisis;
- Establishing and communicating strategic goals with other members of the CMT;
- Ensuring response actions are aligned to statutory, regulatory and legal requirements;
- Ensuring Company Executive and Board are briefed on the crisis response and related issues; and
- Ensuring the company maintains sufficient resources to manage incident response over extended periods.

Finance Manager

The Finance Manager will support the CMT Leader in managing the finances of the business in an emergency situation and ensure timely commitment of funds and engagement of services and support via the Financial Management System. The Finance Manager will provide access to the commercial and legal arrangements in place to implement emergency response. This will include implementation of insurance loss adjustment engagement via the incumbent insurance broker.

The Finance Manager is responsible for:

- Activation of the financial resources and support functions required to support response plans; o Tracking of expenditure during emergency responses and reporting status to the CMT;
- Ensuring requests for expenditure are actioned in a timely manner and tracked; and
- Completing post-incident expenditure analysis and reporting.
- Assuming the role of Primary Scribe to establish immediate record of events. This responsibility can be handed over to a support role once the CMT is established;
- Engaging legal and commercial support functions as required by the CMT;
- Reviewing outgoing correspondence from a commercial/legal perspective; and
- Advising the CMT Leader on commercial/legal considerations of draft response plans.

Stakeholder and Media Manager

The Stakeholder and Media Manager will support the CMT Leader in formulating and defining and managing the stakeholder engagement plan and supporting communications, including responses required to the Regulatory Authorities. The Stakeholder and Media Manager is responsible for:

- Review the Stakeholder Register and defining / prioritising the Stakeholders most likely to be contacted in relation to the incident event;
- Preparing draft stakeholder engagement briefing releases for review by the CMT;
- Engage additional resources to support communications throughout the incident; and
- Monitor external agencies and correspondence for information on the incident which may need to be considered in external communications.

IMT Liaison

The IMT Liaison person will be the primary interface between the CMT and the IMT. The responsibility of the IMT Liaison is:

- Ensuring the timely availability of technical and operational information and documentation pertaining to the asset and the equipment involved in the incident;
- Maintaining communications and situation awareness;
- Assisting the CMT to generate and review response plans prepared by the IMT or CMT and considering options, costs and risks;
- Engage technical support as required to assist with these responsibilities;
- Assist CMT Leader with interpretation of SITREPs for the CMT; and
- Work with CMT to generate and review response plans considering options, costs and risks.

Insurance Broker

Emperor Energy has confirmed that the incumbent Insurance Broker will attend the CMT in support of any incident where Insurance cover may need to be accessed. The Broker will support the CMT in:

- Engagement of Loss Adjustor;
- Preparation of Loss Report; and
- Engagement with Underwriter(s) to facilitate timely access to insurance cover.

CMT Administration Officer

The CMT Admin Officer is responsible for maintaining the readiness of the CMT Room, ensuring IT systems are functional and relevant documentation is available including CMT contact registers. For extended response situations the CMT Administration Officer will ensure that appropriate sustenance is provided for the CMT.

CMT IT Support

CMT IT support is provided by a third-party contractor who will assist the CMT Administration Officer in initial set-up of the CMT room, perform scheduled checks on the CMT room IT functionality, and provide 24/7 IT support to the CMT through the management of incidents.

CMT Training and Verification of Competency

Independent training, certification and readiness assessment is provided for the CMT. Records are maintained for this training and included in the Competency and Training Register for the Senior Management.

A joint emergency response and crisis management exercise will be conducted by the relevant IMT and the CMT, at least 30 days prior to commencement of the activity.

Such simulations are planned by independent agencies and generally included in commitment registers in support of the activity regulatory approvals. Such simulations usually represent the worst-case outcome incident envisaged to have potential to occur during the execution of the activity.

OIL SPILL RESPONSE READINESS CHECKLIST

Table 8-5: Oil Spill Response Readiness Checklist

OIL SPILL RESPONSE ARRANGEMENT	READINESS	SCHEDULE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
Source Control				
Relief Well Drilling - Access to MODU	MODU Register review	One month prior to spud.	Suitable rigs that can be deployed in the event of a Source Control incident requiring a relief well.	Document the identified suitable rig by: • Name • Rig Type • Location • Contract Status • NOPSEMA-accepted MODU Safety Case • Technical specification to meet requirements of relief well.
Source Control Equipment & Services Capping stack. BOP intervention. Debris clearance equipment. Associated well control personnel and technical services.	Contract / Plan Review	Up to 30 days prior to well spud.	WWC availability of well control specialist to fill the roles of Source Control Branch Director and ER Specialist within 72 hours of notification. Source Control Equipment Availability.	Confirmation (email) from WWC with names of personnel and status of equipment as detailed in SCERP.
Capping Stack Installation	Vessel Register Review	One month prior to spud.	Suitable ISV that can be deployed in the event of a Source Control incident requiring a capping stack deployment.	Document the identified suitable ISV by: • Name • Rig Type • Location • Contract Status • NOPSEMA-accepted MODU Safety Case

OIL SPILL RESPONSE ARRANGEMENT	READINESS	SCHEDULE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
				Technical specification to meet requirements of capping stack deployment.
Subsea Dispersant Application	Contract / Plan Review	Prior to activity commencement.	Access to equipment.	AMOSC Member Contract in place. AMOSC Readiness Report prior to activity commencement.
			Access to trained personnel.	AMOSC Member Contract in place. AMOSC Readiness Report prior to activity commencement.
Vessel MDO Spill Response	Contract / Plan Review	Prior to mobilisation or vessel arrival in field.	Approved SOPEP in place.	Copy of SOPEP for each vessel on file.
Vessel Emergency communication link between shore base, rig, and support vessels	Notification / Comms Check	Prior to activity commencement.	Notifications / comms can be established between vessels and shore base or rig in the event of an emergency.	Documented comms check showing date, time and elapsed response time.
MES				
Vessel Surveillance	Contract / Plan Review	Prior to activity commencement.	Access to vessels for surveillance.	Copy of Master Services Agreement (MSA) with vessel providers to gain access to vessels.
Aerial Surveillance	Contract / Plan Review	Prior to activity commencement.	Access to aircrafts for surveillance.	Copy of Master Services Agreement (MSA) with helicopter provider for duration of Judith-2 Drilling Program.
			Access to trained aerial observers.	AMOSC Member Contract in place. AMOSC Readiness Report prior to activity commencement.
Tracking Buoys availability	Contract / Plan Review	Prior to activity commencement.	1 x tracking buoy on each support vessel and on rig.	Vessel Master / On-board AGR HSE Coordinator confirmation that buoy is on board.
Tracking Buoys functionality	Comms / Tracking software Test	Prior to activity	Signal confirmation from tracking software.	Tracking buoys pass functional test as per Operation Work Instruction.

OIL SPILL RESPONSE ARRANGEMENT	READINESS	SCHEDULE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
		commencement and weekly thereafter.		
Trajectory Modelling	Contract / Plan Review	Prior to activity commencement.	Access to oil spill trajectory modelling services.	Contract with RPS APASA in place via AMOSC Member Contract or independently with RPS APASA.
Satellite Imagery	Contract / Plan Review	Prior to activity commencement.	Access to satellite imagery services	AMOSC Member Contract in place. AMOSC Readiness Report prior to activity commencement Review to confirm access to satellite imagery services.
CMT / IMT				
CMT / IMT Readiness	Desktop Exercise	Prior to activity commencement.	CMT / IMT meets the performance standards in OPEP and to ensure situational awareness for IMT.	Documented OPEP Response Exercise Report.
Shoreline Response				
Shoreline Response Equipment & Services Shoreline Protection and Deflection. Shoreline Clean-up.	Contract / Plan Review	Prior to activity commencement.	Access to nearshore/shoreline response equipment. Access to trained personnel.	AMOSC Member Contract in place. AMOSC Readiness Report prior to activity commencement.
Oiled Wildlife Response				
OWR equipment	Contract / Plan Review	Prior to activity commencement.	Access to OWR equipment for duration of drilling program.	AMOSC Member Contract.
OWR personnel	Contract / Plan Review	Prior to activity commencement.	Access to OWR personnel for duration of drilling program.	
Waste Management				
Waste	Contract / Plan Review	Prior to activity commencement.	Access to waste management service	Waste Management Contract in place.

OIL SPILL RESPONSE ARRANGEMENT	READINESS	SCHEDULE	PERFORMANCE STANDARD	MEASUREMENT CRITERIA
management			provider for duration of drilling program.	
Operational and Scientific Monitoring				
Refer to Judith-2 Exploration Well OSM-BIP				