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17. ENVIRONMENTAL HAZARD AND RISK MANAGEMENT

This chapter outlines the environmental hazard and risk management systems for the Project in the context of Papua New Guinea and international standards and guidelines, and ExxonMobil PNG Antelope Limited (EMPNGA) standards, philosophies and specifications that will be implemented by the Project. Risk is managed by identifying potential hazardous events, assessing the consequences and probabilities of the event occurring, and identifying, evaluating and implementing prevention and management measures. Prevention of personal injury and loss of life, and physical damage to property and environment shall be the primary consideration in the design and construction of the Papua LNG Project. Design and protective measures shall be considered and provided for all phases of operation. This chapter focuses on major hazards, defined here as scenarios or potential incidents resulting from the Project that may cause adverse, offsite impacts in terms of acute or chronic human health issues, injuries or fatalities, or major impacts on the natural environment.

17.1 LEGISLATIVE FRAMEWORK AND GUIDELINES

17.1.1 Papua New Guinea Legislation

Papua New Guinea legislation does not contain any specific requirement that an environmental hazard identification or risk assessment be undertaken for this type of project. However, as outlined in Chapter 4 Legal Administrative and Planning Framework, the Papua New Guinea *Environment Act 2000* and the Papua New Guinea *Oil and Gas Act 1998* apply to this Project. This requires understanding all potential aspects of a project's activities with the potential to result in impacts, and means of risk assessing and mitigating these environmental hazards.

17.1.1.1 *Environment Act 2000*

This Act provides for the protection of the environment, in particular water resources, air and soil in Papua New Guinea. Section 7(1) of the Environment Act imposes a general environmental duty on persons not to carry out an activity that causes or is likely to cause environmental harm unless that person takes all reasonable and practicable measures to prevent or minimise that harm.

17.1.1.2 *Oil and Gas Act 1998*

The Oil and Gas Act, Section 115, states that the licensee shall be responsible for, and repair any damage resulting from his operations or from the flow of petroleum, petroleum products, water or waste to any improvements, any land capable of being used for any agricultural purpose or the water supply to such improvements or land.

17.1.2 World Bank

17.1.2.1 International Finance Corporation Environmental, Health and Safety Guidelines and Performance Standards

The International Finance Corporation (IFC) World Bank Group has published environmental, health and safety (EHS) guidelines, which are technical reference documents with general and industry-specific references of good international industry practice. These guidelines provide an international standard for EHS practices. They will be considered in preparing the Project environmental management plan (see Chapter 18 Environment and Social Management, Monitoring and Reporting) in relation to the detailed design.

17.1.2.2 World Bank Environmental Assessment Sourcebook

Additionally, the World Bank has published an environmental assessment sourcebook (World Bank 1997) which requires that environmental hazard identification, including potential receptors and consequence analysis, is undertaken for its projects. The outcomes of this analysis are generally reported in the EIS (in chapters 11 to 13) and for this Project, are summarised in Section 17.4 Environmental Hazards. Additionally, the sourcebook states that, in some instances, a risk assessment of these hazards should be undertaken. ExxonMobil undertakes a comprehensive internal risk assessment for all relevant components of its projects. The process and framework by which ExxonMobil undertakes these risk assessments are outlined below in Section 17.2.

17.2 EXXONMOBIL RISK MANAGEMENT

This Project will operate in accordance with all safety, security, health, environmental and product safety policies. These policies are implemented through ExxonMobil's management framework, the Operations Integrity Management System (OIMS), discussed further in Chapter 18 Environmental and Social Management, Monitoring and Reporting. All elements of the OIMS are applicable to the Project.

Element 2 of OIMS, Risk Assessment and Management, specifically relates to managing hazards and risks. Central to this element is the principle that comprehensive risk assessments can reduce safety, health, environmental and security risks and mitigate the consequences of incidents by providing essential information for decision making.

A key expectation is that risk is managed by identifying hazards to personnel, facilities, the public and the environment, assessing consequences and probabilities, and evaluating and implementing prevention and management measures. Periodic and systematic reviews and updates of risk assessments must also be undertaken by appropriately qualified personnel, with monitoring to ensure risk management decisions are implemented.

Elements 3, 6 and 10 of the OIMS are also of particular importance, as summarised below:

- **Element 3 – Facilities Design and Construction.** Inherent safety and security of a project can be enhanced and risks to health and the environment reduced by using sound standards, procedures and management systems for facility design, construction, and start-up activities.
- **Element 6 – Operations and Maintenance.** Operation of facilities within established parameters and according to regulations is essential. Doing so requires effective procedures, structured inspection and maintenance programs, reliable operations integrity critical equipment, and qualified personnel who consistently execute these procedures and practices.
- **Element 10 – Community Awareness and Emergency Preparedness.** Emergency planning and preparedness are essential to ensure that, in the event of an incident, all necessary actions are taken to protect the public, the environment and company personnel and assets.

17.2.1 Project Philosophies

EMPNGA has implemented a design basis that sets out the general requirements to design, construct and operate the Project, including preventing personnel injury or loss of life and protecting the environment. The project lifecycle, starting from concept selection to operation, requires a number of formal hazard assessments carried out progressively during the execution of a project. The potential for identified and credible hazardous scenarios to occur are reduced during design and through implementing management measures, and adhering to relevant guidelines, standards, and project specifications.

This Project will be designed, constructed, maintained, and operated according to international codes and standards from various sources, including the American Petroleum Institute, American Society of Mechanical

Engineers, American Society for Testing and Materials, National Fire Protection Association, International Electrotechnical Commission and the Papua New Guinea Department of Works. These design codes and standards relate to the engineering design, testing and measurement aspects of this Project.

Aspects of project design that are relevant to the prevention and reduction of significant environmental hazards include:

- Layout of the proposed Project expansion to the LNG Plant
- LNG Plant process control and alarms
- Design for accidental occurrences or unintended releases
- Fire prevention and protection systems
- Active and passive fire protection
- Fire and gas detection systems
- Open and closed drainage systems
- Emergency shutdown and depressurisation
- Pressure relief
- Spill prevention and containment.

Chapter 2 Project Description details aspects of the conceptual project design that aims to prevent a hazardous event from occurring, reduce the probability of it occurring and the consequences of the event if it did occur. Further detailed controls will be developed as the project design progresses.

17.3 RISK MANAGEMENT PLAN

A Project-specific Risk Assessment and Management Plan (RAMP) has been developed for this Project. The RAMP is a comprehensive document that sets out the risk management methodology for the Project in the framework of EMPNGA's risk management work process. The RAMP will provide guidance for risk assessments or studies to be conducted throughout the life of the project. The plan will contain objectives and detail how the objectives will be met.

The risk management objectives for this Project are:

- Risks related to construction and operations are identified by a structured approach to risk identification
- Risk assessments are planned and conducted in advance of appropriate milestones or activities
- Appropriate personnel are included in risk assessments to correctly identify and assess risks
- Results of risk assessments and the associated risk reduction measures are evaluated by appropriate levels of management and are documented, executed, and monitored to completion, to reduce risks
- Risks and associated management and mitigation measures are documented for hand-over to operations personnel, who will take over operations of completed facilities.

The RAMP will also serve as guidance for contractors working with the Project to develop and implement their own risk identification and management processes that meet the Project standards.

17.4 ENVIRONMENTAL HAZARDS

Environmental hazards are typically low probability, high consequence events that could threaten the environment and, in some cases, people's health and wellbeing. Potential environmental hazards for this Project will be similar to those identified for the PNG LNG Project, given the similar scope and shared location of the two projects. Hazards relating to the PNG LNG Project are now well understood and were considered

during the design phase of this Project. The resulting design requirements are documented in the Early Project Design Basis and Environmental Design Basis.

The main environmental hazards likely to relate to the Project include:

- Accidental releases (spills or leaks) of hydrocarbons or other hazardous substances or liquids. Such events could, for example, contaminate soils, surface and groundwater, and marine habitats and resources if not contained, with consequent adverse impacts on terrestrial and aquatic biodiversity and downstream water users.
- Fire caused by ignition (for example, from a lightning strike or electrical equipment) of a gas or condensate release or a diesel leakage. Ignition of a liquid hydrocarbon spill or leak could expand beyond the site as wildfire, threatening local people and nearby flora and fauna.

These hazards are most likely to arise through failure or damage to equipment associated with unplanned events, including natural causes (for example, earthquakes or cyclones) and third-party interference. These hazards are discussed below and are managed through the Project's detailed risk management processes, as described in Section 17.2.

17.4.1 Accidental release of hazardous substances

Hazardous and dangerous substances associated with Project activities include LNG, naphtha, condensate, diesel fuel, solvents (for repair of corrosion coatings on the pipe), oxyacetylene gas (for welding), paints, oxygen-reducing agents, hydraulic fluids, and x-ray sources (for radiography of pipeline welds).

Specific to the Project marine operations, a vessel collision or subsea pipeline rupture whereby natural gas from the feed pipeline, condensate and naphtha, fuel or other hazardous substances, could be released into the environment may affect environmental values a large distance (several kilometres) from the initial spillage site, potentially resulting in long-term impacts. Accidental release, particularly that due to a pipeline rupture or a large-scale spillage of a substantial quantity of fuel or other hazardous substances, would represent a worst-case event scenario.

While unlikely, a spill of this magnitude could spread a substantial distance from the initial spill site and have long-term impacts on habitats and biota, particularly if the spill were to occur in coastal areas and affect various ecosystems, including coral, seagrass, and mangrove communities and fisheries resources.

Naphtha and condensate are highly volatile and when released at the surface, significant amounts would evaporate relatively quickly (days to weeks). The remainder of the product would dissolve in seawater, emulsify, adhere to suspended particulates, biodegrade, weather, and disperse with water currents.

The impact from such events would be dependent on the volume and type of substance or substances, and characteristics of the receiving environment. Mobile fauna such as birds, pelagic fish and marine mammals will either pass through an affected area temporarily or be able to avoid or move away from the site, while immobile or highly site-attached taxa will be unable to avoid exposure. The effects of such events will affect organisms differently, however large spill incidents of various potentially hazardous substances would be toxic to many organisms, potentially causing lethal and sub-lethal effects.

Physiological effects include clogging of gills with suspended solids, direct ingestion of contaminants, adsorption of contaminants to the surfaces of organisms, and bioaccumulation in the tissues of organisms. Hydrocarbon spills may limit gas exchange across the air-sea surface, reduce phytoplankton abundance and primary productivity rates, alter microbial abundance, diversity and function and result in mortality for many zooplankton species.

Naphtha and condensate are absorbed into marine organisms through ingestion, respiration, and direct contact, with acute toxicity reported in some marine species exposed to condensate concentrations as low as 0.03 mg/L (Steiner 2018).

Management measures to address identified impacts include preventing and managing unintended releases. A summary of the types of environmental hazards and risk management controls for this Project is provided in Table 17.1. The summary is based on hazards and controls identified for the PNG LNG Project.

17.4.2 Natural disasters

17.4.2.1 Earthquakes

As detailed in Section 7.1.5 of Chapter 7 Receiving Environment: Onshore, the seismicity of the Project area is classified as Zone 4, which is the least seismically active classification under the Papua New Guinea building standards (PNGBS 1982). There is no record of earthquakes in the vicinity of the LNG Plant, with most seismicity activity located along the northern coast of Papua New Guinea. Hazards, such as earthquakes, are well understood from the PNG LNG Project and were considered during the design phase of this Project. In the event of an earthquake, the Project's detailed risk management processes, as described in Section 17.2, 17.3, Section 17.4.3, and Section 17.5 will be followed.

On February 26, 2018, a 7.5 magnitude earthquake occurred with an epicentre near Hides Gas Conditioning Plant (HGCP). The design and construction of HGCP withstood the earthquake with no loss of containment or pipeline rupture. The initial rapid response by the well-trained workforce, along with controlled emergency shutdown systems, resulted in safely shutting down and minimised damage to equipment. The Earthquake Recovery Team was established to help the EMPNG team complete damage evaluations and restore production.

The PNG LNG response processes executed during this event have been incorporated in the Project hazard and risk management procedures, which are available throughout the life of the Project.

The aftermath of the 2018 earthquake demonstrated effective design and management to withstand natural disasters with a positive outcome. As quoted from the 2019 PNG LNG Project Report of the Independent Environmental and Social Consultant Report (RINA, 2019):

“The biggest event of 2018 was the occurrence of a magnitude 7.5 earthquake with an epicenter close to the Hides Gas Conditioning Plant (HGCP) on February 26. PNG LNG needs to be recognised for its response to this large earthquake, both internally and externally. The designers and constructors of HGCP need recognition – the earthquake had to have exceeded the seismic design criteria. There was no loss of containment, and the pipeline did not rupture. The plant operators showed remarkable discipline undertaking a manual shutdown. EMPNG’s community response was exceptional. Production resumed April 7, 2018 with full production (better than before) on April 26, 2018. By the end of 2018 the annual plant production exceeded the design capacity of 6.9 MTA, even with the two-month shutdown due to the earthquake.”

Table 17.1 Potential environmental hazards for Project components and risk management controls

Project component	Environmental hazard	Risk management controls
LNG Plant	Liquid diesel release.	<u>Design</u> • Bund or curbing to be installed around storage areas to contain spills. <u>Construction and operation</u> • Install fencing and security to prevent third-party tampering • Develop spill response plan with procedures for different spill sizes and types • Train personnel in spill response.
	• Fire during construction. • Fire or explosion of gaseous hydrocarbons during operation. • Fire involving hydrocarbon liquids during operation.	<u>Design</u> • Select foundation system and treatments appropriately • Orient the site to increase likelihood of vapour dissipation by wind • Space equipment to limit escalation and equipment damages • Build control room and camp sufficient distance from hydrocarbon area • Design a passive fire protection system • Design lightning protection for buildings and tower tops • Install a pressure relief via mechanical flare system and safety instrumented system (i.e., high integrity pressure protection system) • Install automated control and shutdown system • Install active firewater/deluge protection. <u>Construction and operation</u> • Implement a security plan with intrusion detection and closed-circuit television • Construct security fences approximately 100 m from facilities • Clear vegetation around LNG Plant along fence line.
	Fuel spill from plant and machinery.	<u>Design</u> • Bund liquid areas to contain small spills and direct to open drain sump • Install shutdown valves between vessels limit the amount of any leak. <u>Construction and operation</u> • Implement ExxonMobil's safe driving requirements, tanker loading and unloading requirements Develop spill response plans and train personnel in their implementation.

Project component	Environmental hazard	Risk management controls
	Contaminated runoff from the LNG Plant due to flood events or dam break.	<u>Design</u> Site the facility with consideration to 1-in-500-year flood event level.
Export pipelines	- Pipeline rupture leading to liquid release, explosion or fire along the export pipelines. - Fuel spill during construction.	<u>Operation</u> - Perform visual inspections including wall thickness, deformity, and leak checks - Perform visual aerial inspections to check for likely third-party interference - Maintain and inspect export pipeline right-of-ways - Adhere to ExxonMobil's safe driving requirements, tanker loading and unloading requirements for onshore activities - Contractor spill prevention and response plan to be in place and personnel trained in implementation of procedures, with appropriate licenses and certifications held as required.
Transport routes	Fuel spill from bulk transport of fuel on road routes to LNG Plant.	<u>Construction and operation</u> - Adhere to ExxonMobil's safe driving requirements and loading and unloading requirements for bulk fuel transport vehicles - As part of procurement, verify that contractor equipment and operational processes meet relevant expectations and standards, and that contractors have appropriate hazard management and emergency response plans. Associated controls to include: - Periodic review, assessment and validation of contractor hazard and risk management standards, processes, information, and equipment - Verification of maintenance and inspection records for bulk fuel transport vehicles - Contractor spill prevention and response plan to be in place and personnel trained in implementation of procedures, with appropriate licenses and certifications held as required.
CALM buoy	- Fuel spill from a vessel collision or leak. - Ability to withstand tidal surges in the event of a tsunami or other severe weather event.	<u>Design</u> - The CALM buoy is an off the shelf piece of equipment that is designed and fabricated by the vendor then delivered to the site complete and ready for installation - The CALM buoy will be equipped with extinguishers, lifebuoys, mooring aids and identification in line with the International Association of Lighthouse Authorities requirements, including but not limited to: - Navigation light - Automatic identification system – Class A - Fog horn - Identification board

Project component	Environmental hazard	Risk management controls
		○ Passive radar reflector ○ Navigation lighting of floating hoses (winker lights). • Floating hoses will be equipped with marine breakaway couplings to allow for a controlled parting of the hoses in case of emergency while minimising the damage to the system and limiting the release of oil into the environment • The subsea pipeline will be lined with a concrete weight coating for stability and protection and will be buried at the shore approach for additional stability and protection from external influences (e.g., dropped objects and surf interference) • Tug boats with fire-fighting capability will be available in the area • Onshore (at the tie-in point to the jetty), isolation valves will be installed to allow isolating the single-point mooring system for maintenance activities or system damage • Emergency shutdown valves will be installed that can isolate the single-point mooring system from the onshore installations in case of emergency • Additional safety requirements from local port authorities will be followed where applicable • The single-point mooring system will be equipped with the following safety facilities: ○ Gas detection and monitoring system (hydrocarbons and hydrogen sulphide) ○ Portable fire extinguishers ○ Portable piloting unit (E-SEA CAT or equivalent) for use during the approach and while a vessel is moored to the buoy. <u>Installation</u> The CALM Buoy will be shipped to site and moored in place. It will be connected to the export pipelines via the PLEM and pipeline risers. <u>Construction and operation</u> • Adhere to the relevant requirements of the Marine Pollution (Preparedness and Response) Act 2013 and relevant spill prevention and response management plan.

17.4.2.2 Cyclones

Large cyclonic storms do not directly impact the Gulf of Papua due to the equatorial proximity (Martin et al. 2008) and the Gulf of Papua is an area of low to moderate cyclone risk (see Section 8.2.2 of Chapter 8 Receiving Environment: Marine). As with earthquakes, the risks from cyclones and other natural disasters are well understood from the PNG LNG Project and were considered during the design phase of this Project. In the event of any natural disasters, ExxonMobil will continue to follow established response processes as appropriate.

17.4.3 Safety and security systems

The general safety and security systems to be implemented on this Project are described in Chapter 2 Project Description and further detailed in this section. As noted in Section 17.2, a formal project-specific hazard identification and risk assessment process for this Project will take place during Front End Engineering Design and detailed design. This process will also review the environmental hazards for this Project and the risk management controls required to manage the hazards.

The Project LNG trains, CALM buoy, and pipelines will be integrated with the PNG LNG systems and the existing LNG Plant to facilitate the safe and reliable operation of the full system. The systems maximise the use of automation to the extent economically justified and minimise local manual control and the need for operator intervention. Site security and the safety of project personnel are managed through project design, planning, training and monitoring.

Specific safety and security aspects are described below for the site layout, site security, fire detection and firefighting, gas detection, plant emergency shutdown systems and alarms, and pipeline leak detection. The Project will leverage the existing LNG Plant processes and systems mentioned above to develop these Project aspects and promote efficient integration at the site. The following sections describe current LNG Plant operating security and safety systems which the project will assess and potentially utilise.

17.4.3.1 Site layout

Project design philosophies, standards and codes for the layout of the LNG Plant expansion are intended to provide for inherently safe loss prevention separations and setbacks, optimal use of space for normal operation and maintenance, separation of plant and support administration areas, emergency response actions and evacuation.

Existing perimeter fencing provides a buffer between any vegetation and the perimeter security fence, and an additional buffer zone will be established between the perimeter fence and the lease boundary. Local landowners will not be permitted to construct dwellings or gardens in the buffer zone. Vegetation will be cleared around the security fence line to limit an uncontrolled fire moving offsite. Various hydrocarbon safety zones will be established to maintain the required distances between, for example, the hydrocarbon process areas and the sleeping and general office areas.

Flare heights and locations will be based on limits for heat radiation levels to personnel and equipment and for flammable vapor concentrations at ground and equipment level.

17.4.3.2 Site security

Site security is managed by EMPNG at the existing LNG Plant site. A contractor security company provides 24-hour entry and exit controls to the LNG Plant and patrol all facilities at night. The LNG Plant provides radio and telephone monitoring 24 hours per day. The Project will assess the use of existing security contracts and processes for construction, as well as integrating the same features into operations.

17.4.3.3 Fire-detection and fire-suppression systems

The design of the Project will incorporate the appropriate fire-detection and fire-suppression systems dictated by the outcomes of hazard evaluation. The strategic objective for the facilities is to reduce the potential for accidents to occur in the first instance by an inherently safe design and mode of operation, principally through: layout, separation, segregation, detection, isolation and blowdown, and prevention of ignition.

Hazard evaluations will identify the need for management measures, including fire and gas detection systems and active and passive fire protection systems, such as flame, smoke and heat detectors and fusible plug loops.

Fire suppression systems will be installed for the turbine enclosures. Electrical enclosures will be provided with fire suppression systems. Fire detectors and fire-detection equipment will be installed in local equipment rooms.

An existing firefighting training facility is available for training of additional personnel as required. Pending the outcome of the hazard evaluation, the Project will determine how the existing processes and systems can be utilised or tied into.

17.4.3.4 Gas detection

The integrated LNG Plant will have appropriate gas detection systems as dictated by the outcomes of hazard assessments. Gas detection systems may include point, line-of-sight and ultrasonic detectors and will be monitored continuously.

17.4.3.5 Emergency shutdown systems

Emergency shutdown systems will protect personnel, the environment and equipment by initiating the safe shutdown of plant and/or process units. The LNG Plant process and emergency shutdown systems activate either automatically or manually.

Automatic systems include centrally controlled, computer-based systems as well as local controllers. Manual systems include call points activated by operators and emergency shutdown pushbuttons.

All proposed pipelines will be protected from overpressure by multiple automated safety protection systems at each inlet to a pipeline.

The LNG Plant has fire and gas detection systems. The executive actions for a confirmed fire or confirmed gas leak are as follows:

- A confirmed fire at the LNG Plant will cause a facility shutdown
- A confirmed gas leak at the LNG Plant will cause a facility shutdown.

Confirmed fire or gas detection means that at least two detectors in an associated area detect either a fire or gas leak. The Project will integrate into these control systems as it will be part of the integrated LNG Plant.

17.4.3.6 Alarm management systems

The alarm management system considers a facility in one of three operating modes: normal, abnormal and shutdown/start-up (including out-of-service mode and out-for-maintenance).

During the abnormal mode, alarms and alerts are used as notifications; during normal mode, messages and indications are provided. For potentially hazardous process excursions, there will be at least one level of pre-alarm prior to shutdown of the system or initiation of the response system.

Table 17.2 summarises the key security measures for proposed Project components.

Table 17.2 Key security measures for Project components

Project component	Manned security	Guardhouse	Visitor processing	Security command centre	Electronic access control	Security fence	Turnstiles	Vehicle barriers	Internal security barriers	Security lighting	Key control program	Electronic surveillance	Electronic intrusion detection
Integrated LNG Plant	X	X	-	-	X	X	X	X	X	X	X	X	X
Operations camp	X	X	-	-	X	X	X	X	X	X	X	X	X
Waste management area	X	X	-	-	-	X	-	-	X	-	X	-	-
Industrial area	X	X	X	X	X	X	X	X	X	X	X	X	X
Remote telecommunication sites	-	-	-	-	-	X	-	-	X	-	X	-	X
Pipeline valve stations	-	-	-	-	-	X	-	-	X	-	X	-	X
Project roads (access controlled)	X	X	-	-	-	-	-	-	-	-	-	-	-

17.4.3.7 Pipeline safety shutdown valves

Safety shutdown valves on the pipelines will be activated by:

- Low pressure in the event of pipeline failure or mainline valve failure
- High pressure in the event of a downstream shut-in or blockage
- Operator intervention based on abnormal pressures or flow rates.

17.5 EMERGENCY MANAGEMENT PLANNING

Emergency management planning will be undertaken in accordance with the ExxonMobil OIMS. Emergency preparedness and response plans will be prepared during the construction and operation of this Project.

The plans will include response actions that address significant incident scenarios identified during hazard and risk assessments. They will provide details on the areas of responsibility and the procedures, equipment and facilities in place to safely manage emergency incidents.

Personnel will be trained to manage operational activities with the highest regard for safe procedures and to react appropriately in emergencies. Simulations and drills will be carried out periodically, including requirements for external communications with third parties.

There are existing emergency preparedness and response plans developed for the existing LNG Plant by EMPNG. The existing Emergency Response Procedure (ERP) will be updated to confirm it remains appropriate to the Project and proposed activities. The existing ERP includes:

- A spill response plan for condensate and naphtha, oil and other hazardous substances.

- Requirements of staff for training during the induction process to facilitate awareness of their responsibilities, ensure that they are able to identify risks or sources of potential chemical and fuel spills, and can apply appropriate environmental and personnel safety and health control measures during a response event.
- Identification of risks or sources of potential chemical and fuel spills and outline of application processes for appropriate control or clean-up equipment.

During construction, the lead contractor will be required to develop emergency response Contractor Implementation Plans that recognise and integrate with Project's ERP.