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Project Name: Nolans Rare Earths





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#### 1.0 INTRODUCTION

## 1.1 Background

The Nolans Rare Earths Project (the Project) is located approximately 135 km northwest of Alice Springs, Northern Territory. The Project targets the Nolans Bore mineral deposit for rare earth elements. Activities will focus on construction, mining, processing, rehabilitation and decommissioning of an open-cut, rare earth mine, and its associated processing facility and infrastructure.

The Project has the potential to experience specific emergencies during its construction, operation and closure phases. Should the implemented risk management practices and control measures fail, a response plan is required to be in place and actions implemented in accordance with this and related management plans.

## 1.2 Purpose

The purpose of the Emergency Response Management Plan (ERMP) is to provide a response framework for specific emergencies across the Project site as well as providing information which is to be used in decision making and project management, detailed planning and methods of work, and provide for a record of performance. The plan has been developed to:

- Provide a process for identifying, assessing and managing emergencies to minimise impact to human health and surrounding environment;
- Provide internal and external reporting requirements for emergencies; and
- Review and assess historical and/or industry specific incidents to inform future management of emergencies.

This document and its subsequent revisions form an integral part of the Project's Mining Management Plan (MMP) and should be read in conjunction with the MMP and associated Environmental Management Plans (EMPs). It is a dynamic document which is to be reviewed and updated regularly (or as determined by the MMP), enabling an accurate reflection of the current operational requirements and practices whilst allowing for responsiveness to conditions, input from stakeholders, and enabling flexibility in planning and prioritisation where required.

All referenced company policies, standards, registers, operational procedures, activity specific documents, forms and templates are stored and can be accessed from within the Arafura Resources Integrated Management System (ARMS).



## 1.3 Objectives

The primary objective of this ERMP is to standardise responses to ensure emergency situations are managed appropriately by:

- Outlining potential emergency situations;
- Identifying initial responses (emergency response);
- Providing communication requirements;
- Establishing requirements for site representatives;
- Providing statutory reporting requirements; and
- Providing an investigation framework (where applicable).

Responsibilities for the implementation of this plan are outlined in action plans in Section 5.0

# 1.4 Emergency Situations

The most likely emergency situations pertaining to the Project have been established through the initial Environmental Impact Statement (EIS) process (GHD, 2016). Additional situations which may arise as the operation progresses will be included in subsequent revisions of this management plan. Situations covered by this plan include:

- Fire Building, Processing Plant, Machinery or Explosion
- Human Heath Injured Person
- Human Health Fatality
- Sacred Site / Restricted Work Area (RWA) Interference
- Hazardous Substances Spill
- Vehicle Incident/accident both on and off site
- Plant and equipment accident
- Rescue from Height



#### 2.0 EMERGENCY MANAGEMENT

## 2.1 Emergency Communications

## 2.1.1 Emergency Contacts

Emergency communication is via Ultra High Frequency (UHF) radio using a dedicated emergency channel or on-site phone system as listed in Table 2—1. Manually and automatically activated alarms are also installed across high density work areas such as the processing site, mine site and accommodation village. A list of external emergency contacts is provided in Table 2—2.

Table 2—1 On-site Emergency Channel/Phone No.

RADIO CHANNEL	Phone Ext
UHF (tbc)	Ext (tbc)

**Table 2—2 External Emergency Contacts** 

Contact	Number	Assistance
Fire / Police / Ambulance	000 / 112	Priority response to emergencies
Police 24 Hour Response	131 444	Non-emergency service
Alice Springs Hospital ER Dept	(08) 8951 7777	Arrange patient drop-off
St John Ambulance – Alice Springs	8959 6600	
NT Fire and Rescue – Alice Springs	08 8951 6688	
Ti Tree Police Station	08 8956 9733	Nearest priority response
Ti Tree Volunteer Fire Brigade	08 8956 9733	Nearest fire response
Poison Information Centre	13 11 26	



#### 2.1.2 Emergency Protocol

## 2.1.3 Emergency

- Alarm
  - Manually and automatically activated alarms are installed across the mine site, processing plant and accommodation village to facilitate the management of emergencies.
- UHF Radio/Phone Raise the alarm through dedicated Project emergency UHF Channel stating the following:
  - Your name;
  - Location of the incident;
  - Description of the incident scene; and
  - Best route to be used to approach the incident location.
- Evacuate the location and assemble to Muster Point(s) or to a safe location if appropriate for the situation.
- Phone external emergency response as required.

#### 2.1.4 Muster Points

During emergencies and emergency training exercises, Project personnel will be required to evacuate to a place of safety. Designated areas (muster points) will be established across the site based on being the least hazardous location in the event of an emergency. In the event of an evacuation, all personnel will cease work immediately if it is safe to do so and leave all equipment in a safe condition, before proceeding calmly and quickly toward the nearest muster point. The ERT will undertake a roll call to verify that all personnel are present.

#### 2.1.5 Assess Incident

Incidents are to be assessed as detailed in Section 5.0. In general, each work area is to have a dedicated Emergency Response Team Member who is appropriately trained to assess incidents and undertake required protocols in accordance with this plan. In the event of an emergency external to the immediate project area the ERT Co-ordinator to provide assistance, co-ordinate response and report.

## 2.1.6 All Clear

The Emergency Response Team (ERT) coordinator is responsible for closing out incidents and providing the 'All Clear' radio call to all site personnel and Muster Points effected. If interrupted by an emergency, works may require the Job Hazard Analysis (JHA) to be re-signed before beginning again.



## 2.1.7 Re-entry

Once the 'all-clear' signal has been given, personnel may return to their work areas. In most situations a debrief is to be held following the incident.

## 2.1.8 Debrief

Emergency Team Position	Responsibilities
Emergency Response Team Coordinator (ERT Coordinator)	Responsible for the implementation of the ERMP and Emergency Team.
	The ERT Coordinator will:
	<ul> <li>Ensure sufficiently trained resources are available onsite to deal with potential and actual emergency situations;</li> </ul>
	<ul> <li>Monitor site radio communications for emergency situations;</li> </ul>
	<ul> <li>Communicate with Emergency Response Team Members and/or Field Team Members;</li> </ul>
	<ul> <li>Implement the ERMP and capture all information relating to the situation;</li> </ul>
	Provide the 'All Clear' over UHF and to Muster Points;
	<ul> <li>Undertake and/or manage investigations into emergency situations or remedial works;</li> </ul>
	<ul> <li>Maintain up to date Emergency Response Team members rosters and associated contact details;</li> </ul>
	■ Provide training to Emergency Response Team members;
	<ul> <li>Provide summary of incidents, actions and responses to the Occupational Health and Safety (OHS) Manager;</li> </ul>
	<ul> <li>Provide toolbox talks as required to summarise emergency responses and details of any historical and/or industry specific incidents which have occurred, and management measures used;</li> </ul>
	<ul> <li>Review and approve modifications to the ERMP annually and/or after an emergency situation; and</li> </ul>
	<ul> <li>Liaise with external emergency response organisations regularly, share information and establish and maintain professional relationships.</li> </ul>
Emergency Response Team (ERT)	Will often be the first response for the majority of emergency situations.
	The ERT responsibilities include:
	Participate regularly in all ERT training exercises
	First response coordinator to capture emergency and/or



	commence response.
	Communicate with ERT Coordinator;
	<ul> <li>Provision of first aid to injured site personnel;</li> </ul>
	<ul> <li>Safety of all site personnel (including employees, subcontractors and visitors) within their areas;</li> </ul>
	<ul> <li>Undertaking a roll call at Muster Points; and</li> </ul>
	<ul> <li>Provide accurate updates on emergency incidents to all site personnel.</li> </ul>
Medical Services Provider (MSP)	Will provide immediate first aid as required and establish additional measures required (i.e. external emergency response).  The MSP will provide toolbox talks on topical issues as required.
Field Team Member	All site personnel including employees, subcontractors and visitors are responsible for:
	<ul> <li>Complying with Site Induction requirements and Emergency Response Team instructions;</li> </ul>
	<ul> <li>Ceasing activities and leaving work areas in a safe condition as required; and</li> </ul>
	<ul> <li>Reporting to local Muster Points and returning to work when the 'all clear' instruction is provided.</li> </ul>

The Emergency Response Team coordinator is to schedule and undertake a debrief meeting following the incident. The meeting shall include Emergency Response Team and site personnel directly involved with the incident and appropriate area manager or others if warranted dependant on the scale or type of emergency. The debrief meeting will be undertaken to:

- Assess response times and effectiveness;
- Undertake a step-by-step assessment of individuals actions and appropriateness; and
- Identify additional management measures and/or responses for future incidents.

The Emergency Response Team coordinator is to update the ERMP and provide a briefing to Project Management Team

## 2.2 Emergency Response Team - Structure and Responsibility

During early works and construction, trained paramedic/ER personnel will be contracted to be a part of the ERT and additional team members will be added to the team as the additional contractors begin working on site.

For the operations, the emergency response process is managed by the site Emergency Response Team (ERT) which will consist of trained staff and a Co-ordinator. All personnel within the ERT are to undergo regular training and participate in regular mock and desktop scenario exercises. The ERT includes members who are currently situated on site, a summary of the roles and responsibilities are provided in Table 2—3.



Table 2—3 Emergency Response Team Responsibilities

Emergency Team Position	Responsibilities
Emergency Response Team Coordinator (ERT Coordinator)	Responsible for the implementation of the ERMP and Emergency Team.
Coordinator (EKT Coordinator)	The ERT Coordinator will:
	<ul> <li>Ensure sufficiently trained resources are available onsite to deal with potential and actual emergency situations;</li> </ul>
	<ul> <li>Monitor site radio communications for emergency situations;</li> </ul>
	<ul> <li>Communicate with Emergency Response Team Members and/or Field Team Members;</li> </ul>
	<ul> <li>Implement the ERMP and capture all information relating to the situation;</li> </ul>
	Provide the 'All Clear' over UHF and to Muster Points;
	<ul> <li>Undertake and/or manage investigations into emergency situations or remedial works;</li> </ul>
	<ul> <li>Maintain up to date Emergency Response Team members rosters and associated contact details;</li> </ul>
	Provide training to Emergency Response Team members;
	<ul> <li>Provide summary of incidents, actions and responses to the Occupational Health and Safety (OHS) Manager;</li> </ul>
	<ul> <li>Provide toolbox talks as required to summarise emergency responses and details of any historical and/or industry specific incidents which have occurred, and management measures used;</li> </ul>
	<ul> <li>Review and approve modifications to the ERMP annually and/or after an emergency situation; and</li> </ul>
	<ul> <li>Liaise with external emergency response organisations regularly, share information and establish and maintain professional relationships.</li> </ul>
Emergency Response Team (ERT)	Will often be the first response for the majority of emergency situations.
	The ERT responsibilities include:
	Participate regularly in all ERT training exercises
	<ul> <li>First response coordinator to capture emergency and/or commence response.</li> </ul>
	Communicate with ERT Coordinator;
	Provision of first aid to injured site personnel;
	<ul> <li>Safety of all site personnel (including employees, subcontractors and visitors) within their areas;</li> </ul>
	<ul> <li>Undertaking a roll call at Muster Points; and</li> </ul>
	<ul> <li>Provide accurate updates on emergency incidents to all site personnel.</li> </ul>



Medical Services Provider (MSP)	Will provide immediate first aid as required and establish additional measures required (i.e. external emergency response). The MSP will provide toolbox talks on topical issues as required.	
Field Team Member	All site personnel including employees, subcontractors and visitors are responsible for:	
	<ul> <li>Complying with Site Induction requirements and Emergency Response Team instructions;</li> </ul>	
	<ul> <li>Ceasing activities and leaving work areas in a safe condition as required; and</li> </ul>	
	<ul> <li>Reporting to local Muster Points and returning to work when the 'all clear' instruction is provided.</li> </ul>	

#### 3.0 REMOTE JOURNEY MANAGEMENT

A check-out / check-in board is to be maintained at the OHS office to assist in logging the locations of remote site work. Remote locations are considered to be areas visited that are outside of the immediate mine site, processing site or accommodation areas. The most likely remote areas to be visited will be the bore field, environmental groundwater monitoring bores, areas for remote environmental flora/fauna surveys and local communities around Nolans.

A remote journey trip plan is to be submitted by the field team to the OHS team prior to departure. The trip plan must contain the following:

- Itinerary estimated departure and arrival time;
- Communications Procedure call-in scheduled communications;
- Nominated OHS department call-in contact;
- Nominated supervisor/on-site contact of the traveller;
- Map of Locality including locations to be visited and estimated times of arrival;
- Vehicle Information registration, type and model;
- Personnel Information names and skills (first aid training); and
- Communications Details UHF radio, satellite phone, mobile phone and/or GPS SPOT.

Once the information is received the OHS department must make sure they are briefed on all aspects of the trip plan. The communications procedure and emergency response procedure should be explained to all personnel going into the field with any queries or questions brought up at this briefing.

## 3.1 Remote Communications Procedure

A summary of the remote communications procedure is provided in Table 3—1 and outlines the processes to be completed throughout remote works and if communications are not maintained.

Table 3—1 Remote Communications Procedure

Step	De	tails			
Step 1	If a scheduled call-in has been determined to be required and is not received within six minutes, the Safety Officer must call the nominated traveller contact number.				
	Со	Contact Made			
	-	Safety Officer is to confirm the location and condition of the field team and (if still in field) the estimated time of arrival back from the field.			
	<ul> <li>If deemed necessary, the Safety Officer is to confirm a time for Field Team to ca when they return to site or confirm next call-in time and details.</li> </ul>				
	-	The Safety Officer must record the actions taken in the Safety Call in Escalation Log (see Template in Appendix A).			



	No Contact Made			
	Check the GPS SPOT location to see the location of the device.			
	Proceed to Step 2.			
Step 2	Job Safety Contact to call the Field Team's nominated contact number.			
	Contact Made			
	<ul> <li>Inform Field Team of missed call-in and establish reason. The Safety Officer must record the actions taken in the Safety Call in Escalation Log (see Template in Appendix A).</li> </ul>			
	No Contact Made			
	Check the GPS SPOT location to see the location of the device.			
	■ The Field Team's nominated contact to call the team members sequentially on the nominated phone numbers until contact is made. The Safety Officer must record the actions taken in the Safety Call in Escalation Log (see Template in Appendix A).			
	If the team cannot be contacted after three continuous attempts, then immediately inform the Safety Officer and proceed to Step 3.			
Step 3	Field Team nominated contact and Safety Officer to work together and:			
	Check the GPS SPOT location to see the location of the device.			
	<ul> <li>Contact teams within the known locations of the remote working team to establish last known contact and facilitate in the search.</li> </ul>			
	<ul> <li>Contact Accommodation Village, Mine Site and Processing Site to determine if the team has returned already.</li> </ul>			
	Establish potential location of team from Trip Plan and last call in.			
	Field Team contact will record the actions taken in the Safety Call in Escalation Log.			
	If the location and safety of the team has still not been established, then proceed to Step 4.			
Step 4	If the team cannot be located, then the Safety Officer is to inform the OHS Manager.			
	OHS Manager and General Manager to establish search and rescue team (minimum of four team members all with first aid training) and mobilise the team to the last known location.			
	The Field Team contact must record the actions taken in the Safety Call in Escalation Log.			
	The Police should be contacted and notified if the site search and rescue team is unable to locate the missing field team.			

# 3.2 Education and Training

#### 3.2.1 Site Induction

All site personnel are to be inducted during construction and operation phases. The site induction must include:

- Summary of potential emergency situations;
- Site personnel requirements; and



- Details of Muster Points.
- Communications and travel protocols

#### 3.2.2 Safety Alerts

Following any significant incident at the Project (including near misses) a safety alert is to be produced and issued by Area Supervisors with assistance from OHS team members. The Safety Alert is to include a picture of the incident (where relevant), summary of events leading up to the incident, root cause and future management measures or recommendations.

#### 3.2.3 Toolbox Talks

The Emergency Response Team (ERT) Coordinator is to provide/facilitate toolbox talks to each construction or operational area as required. The toolbox talks are to summarise emergency responses and details of any historical and/or industry specific incidents which have occurred, and management/control measures used.

#### 3.2.4 Task-specific Procedures and Job Safety Analysis

Operations personnel are to be trained in area-specific procedures and Job Safety Analysis (JSA) to ensure appropriate management/emergency response requirements for tasks are identified e.g. work at heights, confined space entry. Procedure and JSA training is to also include aspects of emergency response.

#### 3.2.5 Emergency Response Team

ERT members are to undertake regular training covering key emergency situations such as fire, vehicle incidents, height rescue, hazardous substances and advanced first aid or medical treatment associated with emergency situations that may occur at or near the Project. The ERT Coordinator is responsible for scheduling training and ensuring ERT members meet minimum competency requirements.

Desktop and mock scenario exercises must be conducted to test ERMP procedures, processes, capability and personnel roles. Desktop exercises should be carried out regularly with a significant mock exercise carried out annually.

## 3.3 Statutory Notification Procedures

Incidents which occur and are considered to form part of the ERMP are to be captured, assessed and reviewed through the ERMP and MMP processes. In addition, regulatory reporting requirements for incidents and triggers are provided in Table 3—2. All external communication of incidents must be signed and approved by the OHS Manager and/or General Manager.



Table 3—2 Regulatory Body Reporting Requirements

Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details
Northern Territory Environmental Protection Authority (NTEPA)	Incident which causes, or is threatening or may threaten to cause pollution resulting in material environmental harm or serious harm.  Qualifying triggers requiring submittal of Section 14 Incident Report to NTEPA are any of the following: is not trivial or negligible in nature; or consists of an environmental nuisance of a high impact or on a wide scale; or results, or is likely to result in \$50,000 or more in taking action to prevent or minimise environmental harm or rehabilitate the environment; or results in actual or potential loss or damage to value of \$50,000 or more of the prescribed amount (whichever is the greater).	< 24 hrs post incident ntepa@nt.gov.au pollution@nt.gov.au	The Section 14 Incident Report Form requires the following details:  Incident causing or threatening to cause pollution;  Location occurred and area impacted;  Date and time;  How the pollution has occurred, is occurring or may occur;  Attempts made to prevent, reduce, control, rectify, investigation and/or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident; and  Operator details. The form is to be signed by acting OHS Manager and/or General Manager for submission.



Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details
Department of Industry Tourism and Trade (DITT) Mines Division	All environmental incidents (environmental incident or serious environmental incident) must be reported to the Department of Industry Tourism and Trade in accordance with the current Section 29 guidance.	As soon as practicable.  mineralinfo.itt@nt.gov .au	<ul> <li>The Section 29 - Mining         Management Act - Notification         of Environmental Incident Form         requires the following details:     </li> <li>Site and operator details;</li> <li>Location occurred and area impacted (GPS coordinates);</li> <li>Date and time;</li> <li>Description of incident;</li> <li>Emergency and remedial actions taken;</li> <li>Nature of impact and severity;</li> <li>Current situation;</li> <li>Details of sampling undertaken; and</li> <li>Notification status internally and externally.</li> <li>The form is to be signed by the acting ESG Manager and/or General Manager for submission.</li> </ul>



Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details			
NT WorkSafe	<ul> <li>Incident which results in either:</li> <li>Death of a person;</li> <li>Serious injury or illness; or</li> <li>Near miss or Dangerous incident.</li> </ul>	<ul> <li>Immediate verbal communication via</li> <li>1800 019 115</li> <li>Written notification &lt; 48hrs post incident. ntworksafe@nt.g ov.au</li> </ul>	<ul> <li>The NT WorkSafe Incident Notification Form requires the following details:</li> <li>Person submitting details;</li> <li>Incident details including date, time and human injury details;</li> <li>Work activity being undertake at the time of incident;</li> <li>Witness(es) details;</li> <li>Details of injured / deceased persons;</li> <li>Summary of injury or illness; and</li> <li>Future remedial actions.</li> <li>The form is to be signed by the acting OHS Manager and/or General Manager for submission.</li> </ul>			
Heritage Branch	Exposure and/or interference with a known or unidentified natural, cultural or indigenous heritage site.	<ul> <li>As soon as practicable.</li> <li>Tel: 08 8951 9247</li> <li>heritage@nt.gov. au</li> </ul>	<ul> <li>No standard notification form is available. However, the following should be provided within the initial notification:</li> <li>Type of natural, cultural or indigenous heritage;</li> <li>Location of the site (grid reference);</li> <li>Type and method of interference (exposed and/or damaged);</li> <li>Name and organisation of discoverer; and</li> <li>Photograph of site.</li> </ul>			



Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details
Central Land Council	Entrance and/or damage of sacred site or restricted works area or discovery of a new potential site.	As soon as practicable. Tel: 08 8951 6211  Mining Section - Current Mining Officer Shaun O'Conner	No standard notification form is available. However, the following should be provided within the initial notification:  Location of the site (grid reference);  AAPA certificate pertaining to the site;  Summary of damage;  Name and organisation of discoverer;  Type and method of interference (exposed and/or damaged); and  Photograph of damage or site.
Aboriginal Areas Protection Authority (AAPA)	Entrance and/or damage of sacred site or restricted works area or discovery of a new potential site.	As soon as practicable. Tel: 08 8999 5511 enquiries.aapa@nt.go v.au	No standard notification form is available. However, the following should be provided within the initial notification:  Location of the site (grid reference);  AAPA certificate pertaining to the site;  Summary of damage;  Name and organisation of discoverer;  Type and method of interference (exposed and/or damaged); and  Photograph of damage or site.



#### 4.0 ENVIRONMENTAL INVESTIGATIONS

## 4.1 Significant Incidents

Several of the most likely emergency situations have the potential to cause environmental impacts to soil, surface water and/or groundwater. Investigations into the extent of the impact and recommendations for remediating areas are to be determined in accordance with the following environmental investigation framework.

Environmental investigations must be undertaken to a level that is commensurate to the environmental risk (i.e. not all investigations will include the sampling of groundwater) and significance or consequence level in line with Project incident reporting and risk management system.

### 4.1.1 Sampling, Analysis and Quality Plan

A Sampling, Analysis and Quality Plan (SAQP) must be developed by the Environmental Officer. However, in incidents which involve discharge and/or spills into watercourses/groundwater, initial sampling will be undertaken as a priority.

The SAQP is to contain sufficient information to undertake an investigation to assess the presence and nature of contamination and is to be designed to provide detail to a sufficient level that can be understood and audited by a third party. The contents of the SAQP are to include:

#### Introduction

- Incident Summary
- Investigation Objective
- Environmental Setting
  - Location and Extents
  - Vegetation
  - Geology
  - Surface Water
  - Groundwater

#### **Data Quality Objectives**

- Basis of Assessment
- Adopted Investigation Levels

## **Sampling, Analysis and Quality Programme**

Soil/ Groundwater/ Surface Water



## **Sample Location and Quantity**

The quantity of sampling locations will be determined with reference to industry documentation for the investigation of contaminated land as detailed below:

- National Environmental Protection council (NEPC), National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 1999 as amended in 2013;
- Australian Standard AS 4482.1–2005. Guide to the investigation and sampling of sites with potentially contaminated soil - Part 1: Non-volatile and semi-volatile compounds; and
- Australian Standard AS 4482.1–1999. Guide to the sampling and investigation of potentially contaminated soil - Part 2: Volatile substances.

The investigation of surface water and groundwater requires a baseline and/or up gradient position to assess against in addition to adopted investigation levels. Sampling locations must remain consistent throughout the investigation and include locations up and down stream/gradient.

If the impact is detected outside of the investigation locations, additional sample locations must be supplemented into the investigation.

## **Adopted Investigation Levels**

Incident investigations will adopt assessment criteria relevant to the location and/or receptor(s). The investigation levels will be developed with reference to the following:

- National Environmental Protection council (NEPC), National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 1999 as amended in 2013;
- ANZECC / ARMCANZ. Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000;
- Friebel, E and Nadebaum, P 2011, Health screening levels for petroleum hydrocarbons in soil and Groundwater. Summary for NEPC. Technical Report no. 10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia; and
- NHMRC / NRMMC, 2011, Australian Drinking Water Guidelines Paper 6, National Water Quality Management Strategy.

#### 4.1.2 Site Investigation

The site investigation must be undertaken by personnel who have sufficient experience and knowledge of contaminated land sampling and quality control / quality assurance. Sufficient information is to be collected throughout the investigation to facilitate an assessment of the impact and can include field notes, bore/soil logs, photographs and equipment calibration certificates.



## 4.1.3 Incident Assessment Report

The Incident Assessment Report (IAR) should provide a summary of the SAQP, site investigation and analysis and interpretation of environmental risk. The report must summarise recommendations to address potential ongoing environmental risk and classify wastes if soils are to be removed from the Project. The contents of the IAR should include:

#### Introduction

- Incident Summary
- Investigation Objective

## **Environmental Setting**

- Location and Extents
- Vegetation
- Geology
- Surface Water
- Groundwater

## **Data Quality Objectives**

- Basis of Assessment
- Adopted Investigation Levels

## Sampling, Analysis and Quality Programme

- Soil
- Groundwater
- Surface Water

## Field Investigation(s)

- Fieldwork Methodology
- Laboratory Analysis Program

#### **Results**

- Soil / Groundwater / Surface Water
- QA/QC

#### Discussion

#### Recommendations



#### 5.0 EMERGENCY RESPONSE ACTION PLANS

Emergency response actions have been predetermined to facilitate the management of incidents at or near the Project. Incidents may include one or more response plans and they should be used in unison as required. The responses covered include:

- Fire Building, Machinery or Explosion;
- Human Heath Injured Person;
- Human Health Fatality;
- Sacred Site / RWA Interference;
- Hazardous Substances Spill;
- Vehicle Incident/accident; and
- Falling from Height.

The emergency response actions are provided in the following sections.



## 5.1 Fire – Building, Machinery or Explosion

Raise Alarm on emergency UHF Channel stating:

- Your name;
- Location of the incident;
- Description of the incident scene;
- · Extent of the fire; and
- Best route to be used to approach the incident location.

Evacuate the location and assemble at Muster Point(s) or safe location.

If an automatic fire alarm or fire suppression system activates, follow this same step and advise such on the emergency UF channel.

#### **Area Supervisors**

Undertake headcount to determine if all personnel are safe.

Site personnel to activate fire suppression system and attempt to extinguish the fire (if appropriate) and isolate power supply and remove flammable materials if safe to do so.

## **ERT Coordinator**

Notify the ERT of the incident and mobilise firefighting equipment to the location.

#### ERT

Attend location and provide firefighting assistance.

ERT Coordinator, OHS Manager and Area Manager

- Attend incident to undertake initial assessment of incident to determine if it is safe to recommence operations.
   Provide the 'All Clear' over UHF and to associated Muster Point(s);
- Direct and assist with investigations into emergency situations or remedial works within 24 hours of the incident occurring.
- ERT Coordinator to debrief with emergency services (if attending).
- ERT Coordinator to maintain and/or replace firefighting equipment used.
- Acting OHS or General Manager to notify the appropriate NT Authorities of the incident and continue follow up of the reporting of the incident investigation with authorities.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective actions to effectively address the incident.

Extinguished

Extinguished

## 5.2 Human Health - Injured Person

# Raise Alarm on emergency UHF Channel stating:

- Your name;
- Location of the incident;
- Description of the incident scene;
- Number of persons injured;
- Nature of injuries; and
- Best route to be used to approach the incident location.

Injured person attended to by trained first aider and/or MSP in field and transported to onsite medical room for further treatment.

## Offsite treatment required

**Treatment sufficient** 

### **MSP**

Contact offsite emergency services to schedule drop off in Alice Springs.

## MSP

Manage the situation and undertake requests from emergency services including preparing for medivac to Alice Springs by site ambulence.

#### **ERT Coordinator**

Attend site to assist in rescue and/or treatment of injured person.

Injured Person transported offsite for treatment.

# **ERT Coordinator, OHS Manager and Area Manager**

- Attend incident to undertake initial assessment of incident to determine if it is safe to recommence operations. Provide the 'All Clear' over UHF and to associated Muster Point(s);
- Direct and assist with investigations into emergency situations or remedial works within 24 hours of the incident occurring.
- ERT Coordinator to debrief with emergency services (if attending).
- ERT Coordinator to maintain and/or replace firefighting equipment used.
- Notify the authorities as required.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective actions to effectively address the incident.



## 5.3 Human Health – Fatality (accident or suicide)

#### First on Scene

Contact emergency UHF Channel immediately and request 'alternate communication channel'.

#### **ERT Coordinator**

- Provide alternate channel not used across the operation and request MSP to join communications.
- ERT instructed to close off area and cease all activities.
- MSP to attend incident.
- Notify GM and OHS Manager.

#### **MSP**

• Confirm status of the incident as a fatality.

#### **OHS Manager**

- As soon as is reasonably practicable, notify NT Worksafe and ensure incident location is preserved; and
- Contact emergency services to inform of the incident on '000' and follow requests.

NT WorkSafe and Police Investigation :

Offsite Removal Approved by NT WorkSafe and Police

#### **MSP**

Arrange for removal and transportation of the body from the Project to a morgue and onward travel.

#### **ERT Coordinator, OHS Manager and Area Manager**

- Stand-down operations and provide briefing of the incident to personnel.
- Site personnel directly or indirectly involved with the fatality are not to return to work until debriefed.
- Re-commence operations where possible excluding the area of the fatality.
- Undertake investigation in unison with NT WorkSafe and Police to establish root cause.
- Review and implement NT WorkSafe recommendations prior to the commencement of operations at the area of the fatality.
- Direct and assist with investigations into emergency situations or remedial works within 24 hours of the incident occurring.
- OHS Manager to notify NT Department of Industry Tourism and Trade Mines Department and complete written notification to all relevant authorities.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective actions to effectively address the incident.



## 5.4 Sacred Site / RWA Interference

Notify the Environmental Department phone:

- Your name;
- Location of the incident;
- · Description of the incident scene;
- Extents of impact; and
- Best route to be used to approach the incident location.

#### **Area Supervisor**

Cease all works and move personnel away from area (leave equipment insitu).

#### **OHS Manager**

- Immediately notify site General Manager;
- As soon as is reasonably practicable, notify the Central Land Council and Aboriginal Areas
   Protection Authority (CLC and AAPA) and provide the following details:
  - o Name and organisation;
  - o Location of sacred site / RWA (grid reference);
  - o CLC certificate pertaining to the site;
  - o Summary of damage;
  - o Type and method of interferences (exposed and/or damaged); and
  - o Photograph of damage.

#### **OHS Manager and GM**

- Undertake incident investigation
- Work with CLC and AAPA to satisfy



## 5.5 Hazardous Substances Spill

#### Site Personnel

- Isolate and contain the spill (if safe to do so).
- · Assist anyone in danger only if it is safe to do so. Move personnel away and upwind of the spill.
- Notify the ERT Coordinator using emergency UHF Channel and provide location, extents, substance type, quantity and environmental impact (soils, surface water courses and groundwater).

#### **ERT Coordinator**

• Immediately contact Fire / Police / Ambulance authorities on 000 for hazardous substance spill off lease (e.g. Stuart Highway) and assist authorities by following the onsite spill response procedures.

#### Onsite spill response: ERT Coordinator, ERT and Environmental Officer

- Attend incident and assess the significance of the spill and flag the area.
- Replenish spill kit contents

## Spill uncontrolled

#### Onsite spill response: ERT Coordinator, ERT and Environmental Officer

- Manage insitu engineering works to capture and control the spill.
- Where spill cannot be controlled regularly monitor flow and extents

## Spill controlled

#### **Environmental Officer**

- Commence investigation in soil, surface and/or groundwater impacts from the spill. The investigation will detail the spill quantity, determine extent and significance of the impact to human health and the ecosystem (including upstream / control samples as required).
- Where relevant, excavate and appropriately dispose of contaminated sediments with validation samples taken and disposal certification provided

### **ERT Coordinator, OHS Manager and Area Manager**

- Re-commence operations where possible, excluding the area of the incident.
- Replenish spill kit consumables.
- Direct and assist with investigations into spill incident within 24 hours of the incident occurring.
- OHS Manager to notify and complete written notification to Department of Industry Tourism and Trade Mines Branch and NT Environmental Protection Authority.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective



#### 5.6 Vehicle Accident / Incident

#### Site Personnel

- Notify the ERT Coordinator using emergency UHF Channel and provide location, description of the
  incident, confirm if spill or fire at location, number of persons injured and best route to be used to
  approach.
- If safe to do so, approach the vehicle and turn the ignition off.
- Leave casualties insitu pending arrival of the MSP and/or emergency services advice.
- Attempt to suppress any fire which has occurred.
- Record volume of hazardous substances leaking and extent of impact.
- Control other vehicle movements to secure incident area.

# **ERT Coordinator, OHS Manager and Area Manager**

- Attend incident to undertake initial assessment of incident.
- Debrief personnel involved with incident.
- Assess and ensure if those involved are fit to return to work.
- Direct and assist with investigations into emergency situations within 24 hours of the incident occurring.
- OHS Manager to notify NT Worksafe and complete written notification.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective actions to effectively address the incident.

#### **ERT Coordinator**

Immediately contact Fire / Police /
Ambulance authorities on 000 for vehicle
accident off lease (e.g. Stuart Highway)
and assist authorities by following the
onsite emergency response procedures.

#### Injured parties

Implement Injured Person / Fatality ERMP

#### Spill occurs

Implement Hazardous Substances Spill ERMP

#### Fire occurs

Implement Fire ERMP



## 5.7 Rescue from Height

Raise Alarm on emergency UHF Channel stating:

- Your name;
- Location of the incident;
- Description of the incident scene; Number of persons requiring rescue;
- Nature of injuries (if any); and
- Best route to be used to approach the incident location.

#### **ERT Coordinator**

· Assess if suitable equipment nearby to undertake a safe rescue. Undertake rescue immediately if available.

#### **ERT Coordinator and MSP**

• Mobilise to location with appropriate rescue equipment/ERT mobile trailer.

Injured person attended to by trained first aider and/or MSP in field and transported to onsite medical room for further treatment.

### Injured parties

Implement Injured Person / Fatality ERMP

#### **OHS Manager**

- Notify NT WorkSafe, preserve area (if required) and complete written notification.
- Notify the Department of Industry, Tourism and Trade Mines Branch of the incident and complete written notification.

## **ERT Coordinator, OHS Manager and Area Manager**

- Stand-down operations at location and provide briefing of the incident to associated personnel.
- Site personnel directly or indirectly involved with the rescue from height are not to return to work until debriefed.
- Re-commence operations were possible excluding the area of the fall from height.
- OHS and Area Manager to ensure appropriate level of investigation, completion of reporting and level of corrective actions to effectively address the incident (in unison with NT WorkSafe as required).



#### 6.0 PERFORMANCE REVIEW

A regular review of performance of this management plan is to coincide with the review process of the Project's Mining Management Plan (MMP).

The review process is to assess performance against objectives of this plan and the stated actions within the MMP, with any relevant outcomes, supporting information, reports and/or data, discussed within the relevant section of the MMP, and supporting information/reports provided within the appendices.

Any outcomes of the performance review that will assist in continually improving this management plan, it's objectives, methods or controls, are to be included or reflected in an updated version of this document.



# 7.0 REFERENCES

# 7.1 Third Party Documents

Ref No.	Title	Document Number
C1.	Friebel, E and Nadebaum, P (2011). Health screening levels for petroleum hydrocarbons in soil and Groundwater. Summary for NEPC. Technical Report no. 10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia	
C2.	GHD (2016). <i>Nolans Project Environmental Impact Statement, May 2016</i> . A report for Arafura Resources Limited.	
C3.	GHD (2017). Nolans Project Environmental Impact Statement - Supplementary Report, October 2017. A report for Arafura Resources Limited.	
C4.	National Environmental Protection Council (1999), National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 1999 as amended in 2013. Australia	
C5.	NHMRC, NRMMC (2011) Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra	



# APPENDIX A SAFETY CALL IN ESCALATION LOG (EXAMPLE)

Safety Call in Escalation Log									
Date	Time	Teams Expected Location	Person Called	Number Called	Contact Made (Y/N)	If located, location and status of the Team	Next Action(s) Taken /Comments	Reason Call in not Received	