



If you can't measure it
You can't control it

Updated
Environmental Management Plan
VALENCIA URANIUM (PTY) LTD
Project No: 2020/049/E-1

Applicant: **Valencia Uranium (Pty) Ltd**

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**Valencia Uranium (Pty) Ltd
Project Number: 2020/049/E-1
EMP - UPDATE**

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ACRONYMS AND ABBREVIATIONS

Acronyms / Abbreviations	Definition
AIDS	Acquired Immune Deficiency Syndrome
AIEMA	Associate Member with the Institute of Environmental Management & Assessment
CEs	Consulting Engineers
CTAN	Coastal Tourism Association of Namibia
MET	Directorate of Environmental Affairs
EAP	Environmental Assessment Practitioner
EAPAN	Environmental Assessment Professionals' Association of Namibia
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
Effluent	Water that has been used for any purpose or mixed with material or waste.
EHS	Environmental Health, and Safety Guidelines
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EMPr	Environmental Management Plan Report
General waste	Waste that may be disposed of without prior treatment. May be disposed of at a municipal dumpsite.
GIIP	Good International Industry Practice
Hazardous waste	<p>An inorganic or organic element or compound that, because of its toxicological, physical, chemical or persistency properties may exercise detrimental, acute or chronic impacts on human health and the environment. This can be generated from a variety of activities and may take the form of liquid, sludge, gas or solid. Hazardous waste can also be defined to be any waste that directly or indirectly represents a threat to human health or to the environment by introducing one or more of the following risks:</p> <ul style="list-style-type: none"> ▪ Explosion or fire ▪ Infections, pathogens, parasites or their vectors ▪ Chemical instability, reactions or corrosion ▪ Acute or chronic toxicity ▪ Cancer, mutations or birth defects ▪ Toxicity or damage to the ecosystem or natural resources <p>Accumulation in biological food-chains, persistence in the environment or multiple effects.</p>
HIV	Human Immunodeficiency Virus
LFO	Light Fuel Oil
MET	Ministry of Environment and Tourism
MHSS	Ministry of Health and Social Services
MLSW	Ministry of Labour and Social Welfare
MME	Ministry of Mines and Energy
MSDS	Material safety data sheet
NEHC	National Environmental Health Consultants CC
NEWS	Namibia Environment and Wildlife Society
NOx	Nitrogen Oxide
NNNP	Namib-Naukluft National Park
Recyclable Waste	Hazardous or general waste that has the potential to be recycled.
TOR	Terms of Reference
uPVC	Un-plasticised Poly Vinyl Chloride
UST's	Underground Storage Tanks
Waste	Any matter gaseous, liquid and solid or any combination thereof designated as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity.
Waste Stream	The cycle of a specific waste from the point of origin up to disposal (cradle to grave concept).
Waste to be recycled.	Hazardous or general waste that is actually being recycled.

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STATEMENT PAGE

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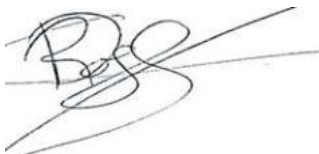
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17th November 2020
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1 INTRODUCTION

The project proponent, VALENCIA URANIUM (PTY) LTD “Namibplaas project” has appointed National Environmental Health Consultants as the independent consultant for the EMP update.

It must be noted that due to current site operations and the staff complement on site, no major impact on the receiving environment could be noted. **It must also be noted that** no operational phase has started yet and that the current site is in care and maintenance phase. This may however change significantly should activities and number of employees increase.

During 2006 and 2008 an Environmental Assessment (EA) and the development of an Environmental Management Plan (EMP) to accompany the Mining License (ML) application were undertaken by WRN as independent consultants.

A clearance certificate in this regard was issued on the 23rd of May 2008.

Exploration work associated with the Valencia Uranium Project includes diamond drilling and ground geophysical surveys. These activities are managed through the guidelines contained within the EMP for exploration activities and an Addendum (Eco.plan, 2005; 2006), and through regular independent environmental audits undertaken against this EMP and its Addendum.

National Environmental Health Consultants CC was appointed by Valentia (Pty) Ltd during August 2009 to conduct an amendment on the existing Clearance Certificate. The amendment report will therefore deal with obtaining a clearance certificate for the new proposed semi-permanent housing facility for permanent and contractor employees of Valencia (Pty) Ltd.

In December 2012 National Environmental Health Consultants was commissioned by DUNEFIELD MINING COMPANY (PTY) LTD to apply for the renewal of the existing clearance certificate.

A clearance certificate in this regard was issued on the 11th of April 2013.

In 2015 National Environmental Health Consultants was commissioned by DUNEFIELD MINING COMPANY (PTY) LTD to undertake an Environmental Impact Assessment (EIA) for the proposed VALENCIA URANIUM (PTY) LTD – Extension “Namibplaas project”.


A clearance certificate in this regard was issued on the 04th of July 2017.

Following the completion of an updated Environmental Management Plan (EMP) Report of the project is consistent with the Namibian governments’ Environmental Assessment Policy and the Environmental Management Act, (Act No. 7 of 2007). The objectives of this report as stipulated by the law are consequently as follows:

Forsys Metals Corp applied for an exploration right on the farm Namibplaas 93, situated approximately 85 km Northeast of Swakopmund (Figure 1). The project is known as the Namibplaas project and involves a proposed open pit, a northern and southern waste dump and a service corridor that will join the Namibplaas area with their existing Norasa mining license area, situated on the farm Valencia 122 to the south.

The Norasa Project Area is located on the Farm Valencia (No. G122) and the Farm Namibplaas (No. G93/1), approximately 30 km east of the Rössing Uranium Mine, 55 km southwest of Usakos and 3 km south of the Khan River.

In 2015, the company completed a feasibility study on the Norasa Project. The estimated Measured and Indicated Mineral Resources are 265 Mt at a grade of 197 ppm U3O8, which

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equates to 115 Mlbs of U3O8. The estimated Inferred Mineral Resource is 26 Mt at a grade of 200 ppm U3O8 for 11 Mlbs of U3O8. The Proven and Probable Norasa Mineral Reserve is 206 Mt at a grade of 200 ppm, which equates to 90.7 Mlbs of U3O8. The ore processing rate is planned at 11.2 million tonnes of ore annually. This will require an average waste stripping of 3.2 tonnes for every tonne of ore. The expected mine life is in excess of 15 years producing up to 5.2 million lbs of U3O8 annually. Norasa will eventually consist of 2 large open pits and a number of smaller, satellite pits. The largest pit will be on Valencia and is currently planned to be 1 660 m long, 980 m wide and over 400 m deep (Namibia Uranium Institute).

1.1 Locality

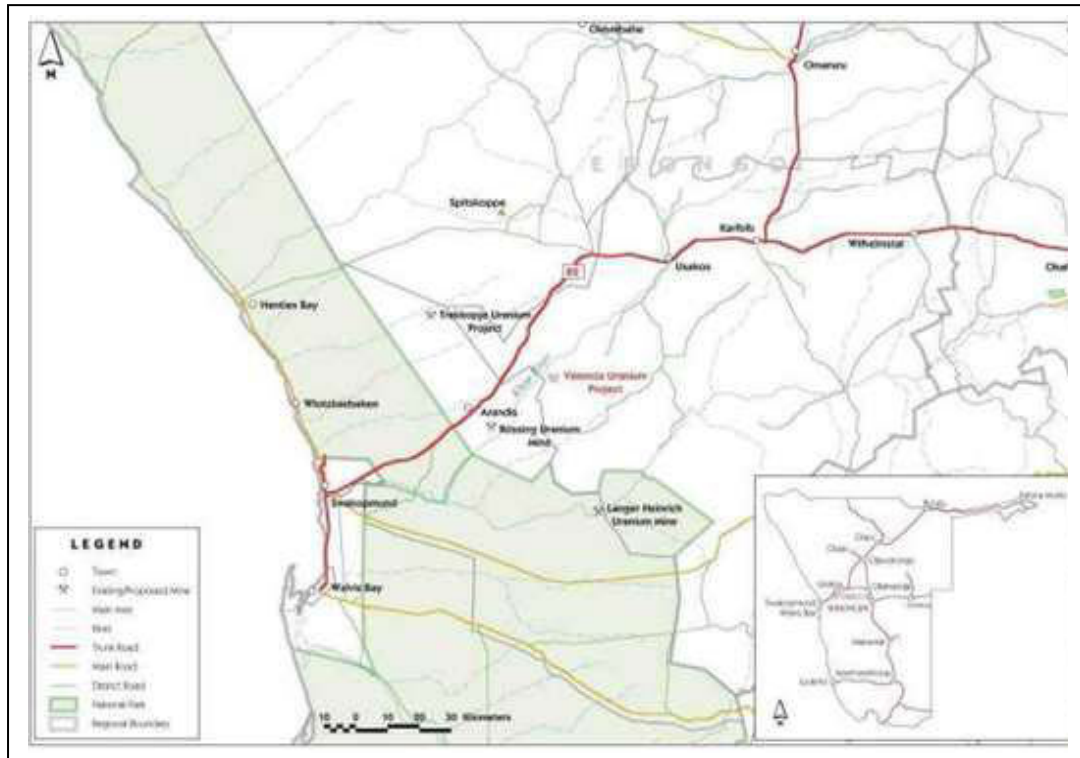


Figure 1: Locality map of the proposed Valencia Project


1.2 Project Background Information

Forsys Metals Corp is incorporated in Canada with the primary public listing on the Toronto Securities Exchange with secondary listings including the Frankfurt and Namibia Stock Exchanges.

In 2005, Forsys acquired a 90% interest in Tsumeb Exploration Company Limited (a Namibian registered company) and acquired the remaining 10% in 2007. Tsumeb Exploration was holder of Mineral Deposit Retention Licence MDRL 1496 (the Valencia Uranium Project) which was later converted to EPL 1496 in February 2007. Tsumeb Exploration changed its name to Valencia Uranium Pty Ltd in November 2007. Valencia converted the Exclusive Prospecting Licence to Mining Licence ML 149 in June 2008.

Dunefield Mining Company (Pty) Ltd is a Namibian registered company established in November 2005, with Forsys having a 70% shareholding. Exclusive Prospecting Licence, EPL 3638 for the Namibplaas Uranium Project was granted to Dunefield Mining Company (Pty) Ltd in November 2006. In March 2012, Forsys acquired the remaining 30% interest Dunefield.

Hence, by the end of 2012, Forsys held 100% of both the Valencia and Namibplaas Uranium Projects. In January 2013, Forsys announced the consolidation of these 2 Uranium projects into a single project, now known as the Norasa Uranium Project. In March 2014, Forsys

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completed a pre-feasibility study on the Norasa Uranium Project. This was upgraded to a definitive feasibility study in March 2015.

Valencia Uranium (Pty) Ltd is the primary operating company for the Norasa Projects. The majority of the exclusive prospecting license area (EPL 3638) is situated on the farm Namib Plaas 93 and is indicated in Figure 2 with a red line, comprising 1265.93 ha. The farm boundaries are indicated with black dotted lines. The proposed open pit and northern and southern waste dump footprints are indicated with yellow, pink and orange lines comprising 113, 118 and 152 ha respectively. The service corridor is indicated with a green line in Figure 2 and stretches across the boundary of the farms Namibplaas and Valencia. The service corridor is 500 m wide, stretches over a distance of approximately 4035 m and covers approximately 201 ha. The area covered by the proposed structure footprints including the service corridor are referred to as the Project Area.

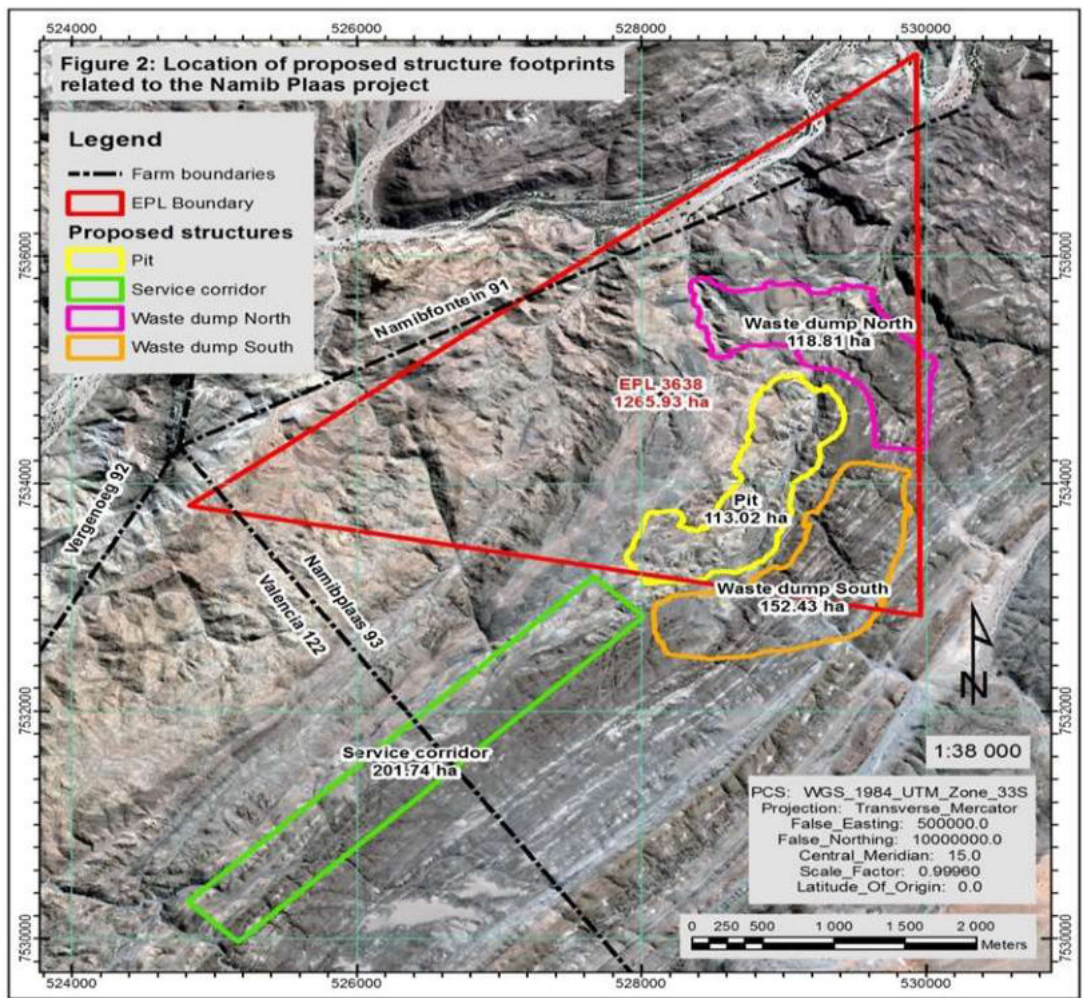


Figure 1:

1.3 Objectives of the EMP

The primary objectives of the EMP are as follows:

- To describe action plans for achieving the mitigation measures described in the Environmental Scoping Report; and
- To indicate responsibilities regarding the implementation of these action plans.

The ultimate goal of Environmental Management as described by the EMA (2007) is to:

- Promote economic development for present and future generations.
- Ensure that actions taken by the present generation are not detrimental to the health, wellbeing and economic opportunities of future generations.

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There are two important principles of Environmental Management that are internationally recognized:

- The precautionary principle, which holds that, wherever there is doubt about the impacts an activity may have on the environment, precautionary measures should be taken, even if cause and effect relationships have not been established scientifically. In addition, the burden of proof will rest with the Project proponent.
- The polluter pays principle requires that the proponent is committed to preventing pollution and will make resources available to ensure that all reasonable safeguards are in place to do so. In addition, the proponent must accept accountability and financial liability for any pollution that may occur.

Everyone has the right to an environment that is not harmful to their health or well-being and to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and the sustainable use of natural resources while promoting economic and social development.

The purpose of the Environmental Management Plan (EMP) is to act as an instrument to be used by Valencia Uranium (Pty) Ltd to ensure that environmental practices are incorporated and maintained.

1.4 Compliance to regulations

VALENCIA URANIUM (PTY) LTD “Namibplaas project” will need to comply with the following legislation:

- The Constitution of the Republic of Namibia (1990)
- Namibia’s Green Plan
- Vision 2030: Third National Development Plan of Namibia, 2006/7 – 2011/12
- Environmental Assessment Policy, 1995
- Draft Wetland Policy of 2003
- The National Environmental Health Policy
- GOVERNMENT GAZETTE OF THE REPUBLIC OF NAMIBIA, Government NOTICES, dated 06 February 2012 number 4878.
- Environmental Management Act 7 of 2007
- The Water Resources Management Act 24 of 2004
- Labour Act of 1992: Regulations for the Health and Safety of Employees at Work
- Labour Act 11 of 2007
- The Regional Councils Act (No. 22 of 1992)
- Nature Conservation Ordinance 4 of 1975 (as amended 1996)
- Atmospheric Pollution Prevention Ordinance 11 of 1976
- Petroleum Products and Energy Amendment Act of 2000
- Soil conservation Act 76, 1969
- Legislation related to effluent and waste water disposal Model Drainage Regulations, 1996
- Water Resources Management Act (Act 24 of 2004)
- Hazardous Substances Ordinance 14 of 1974, and amendments
- Nature Conservation Ordinance Amendment Act, Act 5 of 1996
- National Policy on Tourism for Namibia, 2008
- Namibia is the National Heritage Act (27 of 2004).

1.5 Phases of the Project

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The aim of EMP is to derive mitigation measures that should be made binding on all day to day activities associated with the current operations of the “Namibplaas project” and must be implemented and maintained as standard operational procedure for the project.

The purpose of the EMP is also to provide solutions to problems before they occur. If adhered to this EMP it should limit corrective measures required during the operational phase of the project.

2 RESPONSIBILITIES


The Environmental Management Programme (EMP) specifies the responsibilities of the role players.

The operators / owners of VALENCIA URANIUM (PTY) LTD “Namibplaas project”, remains ultimately responsible for ensuring that the facility is managed in accordance and requirements of the EMP throughout its operational phase.

- The Environmental Control Officer (ECO): the ECO is appointed by VALENCIA URANIUM (PTY) LTD “Namibplaas project” as an independent monitor of the implementation of the EMP i.e. independent of the developer and contractor. The ECO is responsible for providing feedback on potential environmental problems associated with the project. The ECO has the right to enter the site and do monitoring and auditing at any time, subject to compliance with health, safety and hygiene requirements applicable to the site.

The ECO will be responsible for a minimum of once every six-months site audits, followed by an environmental control report, that will detail the status of environmental compliance, and highlight mitigation. The ECO will be responsible for liaising with authorities, the Ministry of Environment and Tourism (MET) and local authorities. The ECO must indicate the necessary corrective action measures to eliminate the cause of the non-conformances. This would also include informing the management of the necessary corrective actions to be taken.

- The Environmental Liaison Officer (ELO): VALENCIA URANIUM (PTY) LTD “Namibplaas project” shall appoint a nominated representative of the “Namibplaas project” an ELO to assist with day to day monitoring of the operational activities for the project. Issues raised by the ECO will be routed to the ELO for the owner’s attention. The ELO shall be permanent on site during the operational phase to ensure daily environmental compliance with the EMP.
- The ELO should preferably be a senior and respected employee of the project; previous experience revealed that ELO’s who better relates to the workforce are most effective for information transfer and ensuring compliance with the EMP. The ELO will report directly to the ECO regarding environmental compliance. The site audits undertaken by the ECO will be undertaken alongside the ELO. The ECO will point out areas of concern; the ELO will be responsible for ensuring day to day compliance with the EMP. Should any emergencies arise the ELO will alert the ECO who will act.

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3 ENVIRONMENTAL AWARENESS PLANS

The purpose of an Environmental Awareness Plan (EAP) is to outline the methodology that will be used to inform Norasa Uranium Mine's employees of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution to or the degradation of the environment. The Awareness Plan is primarily a tool to introduce and describe the requirements of the range of environmental and social plans to the construction and operational personnel.

All Site staff and their managers will undergo environmental awareness training on arrival at the proposed Mining Site. Refresher courses will be held at suitable intervals. New contract staff and new employees on Site will be required to undergo training.

The training will incorporate the following components:

- A description of the social and environmental context within which the proposed Norasa Uranium Mine will be implemented;
- An identification of the key issues and mitigation measures;
- A description of the relevant procedures and protocols to be followed; and
- A definition of roles and responsibilities.

Contractors will be responsible for training of (and skills transfer to) local labour and will be expected to present training plans to Management. Management will be responsible for ensuring that the plans are adequate and for the monitoring of the effectiveness of the training. Training will be site and job specific and based on legal requirements, required productivity outputs and safe working behaviour and will be based on Best Practice and International Standards.


3.1 Communication Strategy

Environmental awareness will be included as part of the proposed Norasa Uranium Mine's internal communication strategy. The promotion of environmental awareness amongst all levels of staff will be achieved by the following means:

- Including contributions on the Environmental Management activities of the operation in an internal newsletter;
- Producing "Environmental Talk Topics" which will be posted on notice boards throughout the organisation on a monthly basis. These will address topics such as pollution prevention, resource conservation, waste management and spill clean-up and will be made appropriate to the working and home environments of employees;
- Posting the Environmental Policy of the organisation on notice boards throughout the organisation and discussing the implications of the Environmental Policy during appropriate meetings; and
- Including Environmental Management as a standing agenda item in all safety and production meetings. Topics for discussion during such meetings should include current Environmental Talk Topics, recent environmental incidents and environmental action plans. Discussions of applicable legislation and changes to legislation, where this affects the operation's activities may also be discussed at such meetings.

3.2 Management Sector

The building of environmental awareness and management capacity at Management level will be focussed on ensuring that Management is aware of their responsibility and accountability for the management of the environmental aspects of their activities. Communication and training interventions will focus on the applicability of legislation and legislative changes to their activities, the content of regulatory instruments such as licences, permits and exemptions, the

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importance of taking the lead in environmental management by setting a good example and Environmental Management tools and techniques, such as Environmental Impact Assessment and current Environmental Best Practice.

3.3 Administrative Sector

Environmental awareness building in the Administrative sector will be appropriate to the level of impact associated with administrative activities, such as resource consumption and waste separation, as well as the creation of general environmental awareness principles, such as those that may apply in the purchasing of products, services and consumables, as well as concluding of service agreements.

3.4 Mine Workers Sector

Environmental awareness for mine workers in the lower worker categories will be achieved by including an environmental awareness module in all engagement and induction material. The content of such a module will include the Mine's Environmental Policy, the Mine's significant impacts on the environment, the basics of mitigation measures employed, and organisational environmental rules relating to waste management, spill clean-up and resource consumption, amongst others. Where training modules for specific worker categories exist, such training modules will include a discussion of the real and potential environmental impacts of their activities and their responsibilities relating to the mitigation and avoidance of such impacts. The training modules will also elaborate on the real and potential consequences of deviation from procedures aimed at managing environmental impacts.

3.5 Evaluation of the Environmental Awareness Plan

The effectiveness of environmental management training and awareness building interventions will be gauged by:

- The performance as recorded by the audits aimed at evaluating the environmental awareness of employees directly, and
- Analysing the root causes of environmental incidents, including non-conformance to legal requirements, to determine which incidents were caused by a lack of environmental awareness and training.

4 MINE OPERATIONAL PHASE

4.1 Table 1: OPERATIONAL PHASE - Socio-economic: Job Opportunities and Economic Upliftment

Socio-economic: Job Opportunities and Economic Upliftment	
PHASE:	Operational
IMPACT:	BENEFICIAL
TASK/ENVIRONMENTAL IMPACT:	Job Opportunities and Economic Upliftment
OBJECTIVE:	Advantages for local previously disadvantaged communities in terms of employment, empowerment and socio-economic upliftment
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ The Proposed Plant will result in jobs being created. Indirectly, jobs are also created in industries that provide goods, materials and services. ➤ The Proposed Plant contributes to the increase in skills development and also local employment in the area. Both short-term and long-term employment will be created in this case.

TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	Record of local workers employed
RESPONSIBILITY:	Developer
TIME FRAME:	Current operational phase

4.2 Table 2: OPERATIONAL PHASE - Socio-economic: Contribute to upgrading of existing infrastructure

Socio-economic: Contribute to upgrading of existing infrastructure	
PHASE:	Operational
IMPACT:	BENEFICIAL
TASK/ENVIRONMENTAL IMPACT:	Contribute to upgrading of existing infrastructure
OBJECTIVE:	Improved municipal services
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ All recommendations made by the civil, traffic and electrical engineer and approved by the Municipality must be installed as per standard specifications.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	Implementation of infrastructure as per approved engineering plans
RESPONSIBILITY:	Developer, Traffic Engineer, Engineer and ECO
TIME FRAME:	Proposed operational phase and if any upgrades or construction take place on during the operational phase.

4.3 Table 3: OPERATIONAL PHASE – Bio-Physical: Exotic plant species

Bio-physical: Exotic plant species	
PHASE:	Operational
IMPACT:	BENEFICIAL
TASK/ENVIRONMENTAL IMPACT:	Removal of exotic plant species and establishment of indigenous vegetation.
OBJECTIVE:	The removal of exotic plant species and the planting of indigenous vegetation within landscaped areas will increase biodiversity
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ All classified Invader Species in terms of the Nature Conservation Ordinance Amendment Act, Act 5 of 1996 to be identified, eradicated and controlled. ➤ The Landscape Development Plan must as far as possible make use of indigenous trees and plants. The use of exotic species must be limited.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	Landscape Development Plan
RESPONSIBILITY:	Contractor, Landscape Architect, Environmental consultant, and ECO
TIME FRAME:	Proposed operational phase and may include if any upgrades or construction take place during the design, planning, and construction phases

4.4 Table 4: OPERATIONAL PHASE – Socio- economic: Visual Intrusion & Light Pollution

Socio- economic: Visual Intrusion & Light Pollution	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Visual Intrusion & Light Pollution
OBJECTIVE:	To mitigate the potential negative impact on "genius loci" and visual impact, should architecture not be in line with natural character of area, through the appropriate application of form, scale, materials and finishes
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Light pollution should be minimized. ➤ Lighting on site is to be sufficient for safety and security purposes, but shall not disturb neighbouring occupants, disturb wildlife, or interfere with road traffic. ➤ Littering, rubbish and illegal dumping on the site is NOT allowed ➤ Refuse must be contained and disposed of at the Municipal land fill site. ➤ Refuse bins must be provided. These must be sufficient in number and easily accessible. ➤ The buildings may not be visually intrusive. ➤ The buildings must be regularly painted. ➤ All lights used for non-security purposes should be energy efficient for example compact fluorescent lights (CFL). Fluorescent lamps give five times the light and last up to 10 times as long as ordinary bulbs. ➤ Outside lights will have to be downward shining (eyelid type), low wattage and should not be positioned higher than 1 m above the ground surface. ➤ Signs must conform to the standards of Local Government for Outdoor Advertising Control. ➤ Areas that have been landscaped must be maintained.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	No complaints from surrounding property owners
RESPONSIBILITY:	Developer, Architect, Landscape Architect
TIME FRAME:	Planning and current operational phases

4.5 Table 5: OPERATIONAL PHASE – Socio- economic: Traffic

Socio- economic: Traffic	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Traffic
OBJECTIVE:	Possible increased pedestrian hazard and increased road damage.
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Access to the site is from the B2 Road onto the dirt road that have to be maintained. The access arrangements must be based on the standards contained in applicable legislation. ➤ Road surfaces in the immediate vicinity of the site should be monitored. If the road is damaged the relevant authority must be notified. ➤ Advertising boards must not block the visibility to the B2 road and to and from the site. ➤ Access to and from the site must not have a negatively impact on the traffic on the B2.

	➤ All requirements by the Traffic engineer and Provincial and Local Traffic Department must be adhered to.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	No complaints from road users
RESPONSIBILITY:	Developer and Traffic Engineer
TIME FRAME:	Planning, design and current operational phases

4.6 Table 6: OPERATIONAL PHASE – Socio- economic: Noise

Socio- economic: Noise	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Noise
OBJECTIVE:	To minimize impact of noise on surrounding properties and environment
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Noise levels shall be kept within acceptable limits, and forecourt staff must abide by National Noise Laws and local by-laws regarding noise. ➤ Equipment such as mechanical equipment, extraction fans, refrigerators that are fitted with noise reduction facilities (e.g. side flaps, silencers etc.) must be used as per operating instructions and maintained properly. ➤ Noise levels should comply with the SANS Code of Practice 100103-0994 (recommended noise levels).
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	No complaints from surrounding property residents.
RESPONSIBILITY:	Developer, Contractor Management
TIME FRAME:	Proposed operational phase and if any upgrades or construction take place during the operational phase.

4.7 Table 7: OPERATIONAL PHASE – Socio- economic: Atmospheric Pollution & Odours

Socio- economic: Atmospheric Pollution & Odours	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Atmospheric Pollution & Odours
OBJECTIVE:	Minimize atmospheric pollution and odours
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Standard vents fitted to the breather pipes minimize the loss of vapours. ➤ The emissions from the proposed Plant and associated storage infrastructure would be dispersed according to the prevailing wind direction, with increased distance the concentration of the emitted particles will decrease. ➤ All general waste areas are to be maintained in a neat and orderly manner and bins must have secure lids.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	No reports of negative health incidents or complaints from surrounding property residents
RESPONSIBILITY:	Developer, Contractor, Management
TIME FRAME:	Proposed operational phase and if any upgrades or construction take place during the operational phase.

4.8 Table 8: OPERATIONAL PHASE – Socio- economic: Safety & Security.

Socio- economic: Safety & Security	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Safety & Security
OBJECTIVE:	Ensure safety and security of staff and users of the facility
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Appropriate measures should be in place for the correct storage and handling of fuel as well as the procedures for dealing with dangerous situations. ➤ Staff should be adequately trained with respect to dealing with crime. ➤ Equipment and materials must be handled by staff that have been supervised and adequately trained. ➤ Staff must be regularly updated about the safety procedures. Emergency facilities must be available and adequately supplied for use by staff and customers. ➤ Emergency contact details for the police, Security Company and fire department must be readily available.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	Record of regular training for staff
RESPONSIBILITY:	Developer, Contractor, Management
TIME FRAME:	Proposed operational phase and if any upgrades or construction take place during the operational phase.

4.9 Table 9: OPERATIONAL PHASE – Soil & Groundwater Contamination (Surface spillage of product)

Bio-Physical: Soil & Groundwater Contamination (Surface spillage of product)	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Soil & Groundwater Contamination (Surface spillage of product)
OBJECTIVE:	Prevent soil and groundwater contamination
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ All erected plant equipment must be located on a hardened surface to contain spillages. ➤ All erected plant equipment and forecourt areas should all be located on a hardened surface which drains into a common drain. This drain must feed an onsite oil and water separator such as a Zorbit Grease Trap. The accumulated grease and oil must be removed by an accredited company. ➤ Overfill and spillages during tanker refueling and dispensing should be prevented by the installation of automatic cut off devices. ➤ Tanker delivery driver must be present during delivery of product or raw materials with the emergency cut off switch. ➤ In the event of the pump dispenser or the hoses being knocked over or ripped off, the fuel supply must be cut off by shear off valves. ➤ Strict procedures for the management of the site must be developed and adhered to. ➤ Staff must be trained to prevent spillages during loading and off-loading of product.

TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	<ul style="list-style-type: none"> ➤ Tanks, lines and fittings to be installed and certified as per relevant standards ➤ Approved Spill Contingency Plan ➤ Record of regular training of staff ➤ Record of regular monitoring
RESPONSIBILITY:	Developer, Engineer, ECO.
TIME FRAME:	Current operational phase.

4.10 Table 10: OPERATIONAL PHASE – Bio-Physical: Subsurface leaks (lines, tanks)

Bio-Physical: Subsurface leaks (lines, tanks)	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Subsurface leaks (lines, tanks)
OBJECTIVE:	Prevent soil and groundwater contamination
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Staff must be trained adequately so as to identify and minimize the impacts of leaks. ➤ Fuel stock must be monitored on a daily basis. ➤ Cathodic protection will prevent corrosion in pipelines. ➤ Leak detectors with automatic cut off valves will be installed. ➤ Subsoil cut off drain should be installed in the lower boundary of the site to catch any seepage of fuel. The drain should be deep enough to bed 100 mm into the bedrock and linked to a sump that can pump out in the event of a spill. This drain must NOT be connected to the storm water system. ➤ A proper management and monitoring program be implemented to ensure that the groundwater resources are protected. This should include: - ➤ Drilling of at least one monitoring borehole downstream of the site can be utilised as a background monitoring point; and ➤ Take water samples and analyse for microbiological, macro elements and TPH/BTEXN at least twice annually. ➤ Dipstick readings of all the storage tanks must be taken daily. These records must be kept on site. ➤ The occurrence of BTEXN (i.e. Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene), Sulphur and heavy metals such as Lead (Pb) in soil and groundwater should also be investigated and results thereof included in the records. ➤ If contamination or leakage is detected a rehabilitation plan must be compiled and executed. ➤ Product and raw material stocks must be reconciled on a monthly basis. ➤ Inform authorities of any leaks or spillages.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	<ul style="list-style-type: none"> ➤ Tanks, lines and fittings to be installed and certified as per relevant standards ➤ Approved Spill Contingency Plan ➤ Record of regular training of staff ➤ Record of regular monitoring
RESPONSIBILITY:	Developer, Engineer, ECO.
TIME FRAME:	Current operational phase.

4.11 Table 11: OPERATIONAL PHASE – Bio-Physical: Risks of Fires & Explosions

Bio-Physical: Risks of Fires & Explosions	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Risks of Fires & Explosions
OBJECTIVE:	Prevent emergency incidents
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ The design and construction of the proposed Plant and associated storage infrastructure must conform to the following fire safety standards and legislation: ➤ The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974. ➤ The [(Labour Act, 1992 (Act 6 of 1992) as amended under the Labour Act 2007, (Act 11 of 2007)]. ➤ Fire Services Act (Act 99 of 1956). ➤ National Building Regulations (Act 103 of 1977)- Fire extinguishers must be easily accessible. ➤ Environmental Management Act, 2007 (Government Gazette No. 4878) were promulgated on 6 February 2012 ➤ The following signs must be installed "NO SMOKING", "NO NAKED FLAME", "NO CELLPHONES" ➤ Staff must be trained adequately so as to identify and minimize the impacts of leaks and to deal with fires. ➤ Overfill and spillages during tanker filling and dispensing should be prevented by the installation of automatic cut off devices. ➤ In the event of the pump dispenser or the hoses being knocked over or ripped off the fuel supply must be cut off by shear off valves. ➤ Tanker delivery driver must be present during delivery of product with the emergency cut off switch and a fire extinguisher. ➤ Firefighting facilities must conform to the oil industry standard and be regularly inspected. ➤ The proposed Plant and associated storage infrastructure management must develop an EMERGENCY PLAN. All staff must be adequately trained in the implementation of this plan.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	<ul style="list-style-type: none"> ➤ Approved Emergency Response Plan ➤ Record of regular training of staff ➤ Record of regular monitoring
RESPONSIBILITY:	Developer, Engineer, ECO
TIME FRAME:	Proposed operational phase and if any upgrades or construction take place during the operational phase.

4.12 Table 12: OPERATIONAL PHASE – Bio-Physical: Waste Generation & Disposal

Bio-Physical: Waste Generation & Disposal	
PHASE:	Operational
IMPACT:	ADVERSE
TASK/ENVIRONMENTAL IMPACT:	Waste Generation & Disposal
OBJECTIVE:	Prevent pollution of ground & surface water and the environment as a whole
ACTION REQUIRED:	<ul style="list-style-type: none"> ➤ Solid waste generated needs to be collected at a central point. This waste will be disposed of as normal domestic waste at the closest municipal waste disposal site. (Arandis) ➤ The Waste Management and Pollution Control Act covers all

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	<p>aspects relating to waste management and must be adhered to at all times. Any other relevant legislation must also be adhered to.</p> <ul style="list-style-type: none"> ➤ Waste management at the proposed Plant and associated storage infrastructure shall be strictly controlled and monitored. Only approved waste disposal methods shall be allowed. ➤ Management of the proposed Plant and associated storage infrastructure shall ensure that all personnel are instructed in the proper disposal of all waste. ➤ The management of the proposed Plant and associated storage infrastructure is encouraged to participate in a recycling scheme. In this instance separate receptacles for the disposal of these recyclable materials could be positioned in the waste collection area. Sorting of the waste into organics, recyclable, hazardous and domestic waste should be undertaken at this point if possible. Staff training should be undertaken every six months to capacitate staff in terms of waste minimisation, waste disposal, recycling and other waste issues. ➤ NO burning, on-site burying or dumping of waste shall occur. ➤ Hazardous waste will only be produced during emergency situations such as a spill that has been cleaned up with an absorbent material. This will be disposed of at a registered hazardous landfill site. ➤ These materials may be removed by an appropriate hazardous waste contractor. Proof of appropriate disposal must be obtained by the contractor. ➤ Waste streams generated on the site shall be sent to a waste collection point for sorting and recycling. ➤ Bins shall be clearly marked to ease management of waste and recycling.
TARGETS TO MONITOR COMPLIANCE AND REPORTING THERE ON:	Removal of waste to certified land fill sites
RESPONSIBILITY:	Developer, Waste removal contractor, Engineer, ECO
TIME FRAME:	Current operational phase

5 MINE REHABILITATION, DECOMMISSIONING AND CLOSURE PLAN

5.1 Overview

A comprehensive Conceptual Mine Rehabilitation, Decommissioning and Closure Plan were compiled for the proposed Valencia Uranium Mine. Longer term issue is the development of a mine rehabilitation programme that ensures long-term sustainability of the final land condition and the development of an effective and efficient approach to the funding of closure that enables mine rehabilitation and other environmental objectives to be achieved and also facilitates compliance with the requirements of government and the community.

Mine rehabilitation is an on-going programme designed to restore the physical, chemical, radiological and biological quality or potential of air, land and water regimes disturbed by mining to a state acceptable to the regulators and to post mining land users (WMI, 1994). The activities associated with mine closure are designed to prevent or minimise adverse long-term environmental impacts, and to create a self-sustaining natural ecosystem or alternate land use based on an agreed set of objectives. The objective of mine closure is to obtain legal

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(government) and community agreement that the condition of the closed operation meets the requirements of those entities, whereupon the company legal liability is terminated.

Conceptual Closure Plans, as described in the Specialist Report (Appendix J - Old Appendices), are normally compiled at the start of the mine's life during the feasibility, development and detailed design phase. This Conceptual Mine Rehabilitation, Decommissioning and Closure Plan Report needs to be modified and adapted as the mining project continues and more knowledge is generated about the Mine environment and the impacts of the Project. Consequently, it will result in the compilation of a much more detailed closure plan. The nature of the ore body, the tailings materials and the waste rock dumps really only become apparent during the operational phase. The Mine's Closure Plans need to be adapted to be able to achieve the same objectives that they had before at the start of operations. Therefore, an appropriate continual monitoring and assessment programme is vital to the success of any closure plan. The closure plans need to be reviewed regularly. For this Project a review period of at least every three years is recommended.

In addition to reviewing the closure plan as a result of additional technical knowledge acquired during on-going operations, regular reviewing is required because mining plans change due to changing economic conditions and because the nature and extent of the ore body is imperfectly understood during the planning phase of an operation. In addition, societal needs and expectations change regularly and the mine's closure plans need to be adapted to address these changing expectations. The closure plan should be considered to be a "living" document that is amended in light of the learning experienced during the mine life and changed Mine plans.

During the preparation and reviewing of rehabilitation plans a number of different factors need to be considered. These may all influence decisions about selecting a rehabilitation strategy, including:

- The conservation value of a proposed environmental outcome;
- The importance to the local community of the economic productivity of the proposed future land capability;
- The consistency of the proposed land use with local and regional plans; and
- The long-term ownership of the proposed land.

Irrespective of the rehabilitation outcome, the Environmental Authority must ensure that the rehabilitation will endure expected climatic variations and that the land will be sustained for a land use consistent with the surrounding area.

5.2 Policy Statement and Objectives

The following vision statement is proposed for the Norasa Project:

"We will conserve natural resources by ensuring reduced resource consumption, effective and efficient usage of the mineral deposit and safe disposal of waste. Environmental sustainability will be maintained through integrating environmental, social, cultural and economic factors into business decisions, goals and objectives, whenever practical. We will seek improvement by continually assessing the Norasa Project's Environmental, Social, Safety and Health performance against set objectives and regularly reviewed targets. Realising that the mine is exploiting a finite resource, all the mine activities will be conducted in such a manner that a closure condition can be achieved which is acceptable to society. This will be achieved by integrating the required activities into the planning and operational phases of the project where possible."

The overall closure objective is to leave the mine and plant area in a condition that minimises adverse impacts on the human and natural environment and with a legacy that makes a positive contribution to sustainable development. The project's closure objectives include:

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- Follow a process of closure that is progressive and integrated into the short- and long-term mine plans and that will assess the closure impacts proactively at regular intervals throughout project life;
- Implement progressive rehabilitation measures, beginning during the construction phase wherever possible;
- Leave a safe and stable environment for both humans and animals and make their condition sustainable;
- Return rehabilitated land-use to the pre-mining land use potential, where possible, grazing land capability (in the context of this arid area), or areas to be used by indigenous wildlife;
- Prevent any further soil and surface/groundwater contamination by managing all water on site;
- Comply with local regulatory requirements and international best practise;
- Ensure that the long-term radiation exposure of the public from the tailings, and waste rock dumps are kept "as low as reasonably achievable" (ALARA);
- Form active partnerships with local communities, where possible; and
- Maintain and monitor all rehabilitated areas following revegetation or capping and, if monitoring shows that the objectives have been met, making an application for closure.

The cost and ease of closing down uranium mines and mills seems to depend very much on the environmental control measures practised during the mine's operation. With good environmental practice, and response to monitoring data the cost to be incurred at mine closure can be greatly reduced. The overall accountability for the implementation of this plan lies with the Norasa Project team. The mine Executive Management Team is also responsible for auditing the implementation of this plan. The closure plan and progress with it should be reported on at Board level by the person designated to report on these matters. The responsibility for implementing the different aspects of this plan at Construction, Operational and Decommissioning and Closure Phases lies with the Management and Staff of Valencia Uranium.

5.3 Risk Assessment

A formal risk assessment needs to be conducted for the Project once the Mine Management Team is in place. The findings of the EIA highlight the following major environmental issues which would need to be addressed for any closure plan of the Norasa Uranium Project.

- Dust control during Operation, during Decommissioning and Post Closure to prevent the dispersion of waste rock, or tailings material;
- Pit safety to ensure safety and stability of the pit open void and to prevent inadvertent access and accidents occurring in the pit;
- Groundwater impacts: to understand and mitigate the effects on surrounding ground and surface water users;
- Erosion of the surface of various topographical features which have been added to the landscape such as the waste rock dumps, low grade stockpile and tailings dump by air and water. (Note: the low-grade stockpile may be processed depending on market conditions);
- Pit water quality and the impact this could have on the potential users of the pit after closure;
- Infrastructure, roads, pipelines, offices, housing and what the final fate of these items should be; and
- Radioactive residues and wastes remaining after closure.
- It will be necessary to conduct a formal risk assessment on environmental and closure issues as soon as possible. This then needs to be repeated with the update of the closure plan.
- Issues pertinent to the closure of the operation are:
 - The population density in the project area is extremely low;
 - Due to the arid environment and the soil conditions, the chances of successfully introducing a vegetative cover over any disturbed area to prevent erosion will be low;
 - The workforce is planned to be housed elsewhere and thus the amount of infrastructure to be constructed on site is limited;

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- The life of the operation is relatively short being 11 years but may change as the Project Team is still busy with exploration;
- The aridity and exposure to winds makes disturbed ground susceptible to dust generation; and
- The deposition of dry tailings, the lack of rainfall, the presence of an open pit and the absence of significant aquifers in the vicinity of the tailings dump reduces the likelihood of groundwater contamination migrating from this site.

5.4 Metallurgical plant

- At present it is planned that the metallurgical plant and the associated equipment should be dismantled or demolished, decontaminated and cleared for release (e.g. sale) into the public domain.
- As this is a uranium treatment operation, it is expected that metal, rubber and other material surfaces will be contaminated with radionuclides. These items will be decontaminated on site in accordance with the guidelines provided in the mine's Radiation Protection Programme.
- Motors, electrical cabling, etc. should be sold as appropriate after going through a suitable decontamination programme and contamination clearance survey.
- The concrete foundations of the plant should either be placed at the bottom of the pit or at the base of the waste rock dumps where they should be covered as directed by the recommendations of the radiation studies to be conducted at closure. All foundations should be removed to at least a meter below ground level or to a depth at which they are no longer considered to be contaminated with radioactive materials.
- Where soils have been affected by spillages such as nitrates or hydrocarbons, these soils should be stockpiled and appropriately treated to ameliorate the contamination levels prior to being placed on the tailing's facility.
- Soils and concrete contaminated with radionuclides will require to be disposed of into the tailings dam.

5.5 Tailings storage facility

- The tailings dump should be constructed during the operational phase from a mixture of coarse and finer tailings material.
- If the dust generation rate is high, then the tailings disposal methodology should be modified or other means implemented, to prevent this from occurring.
- The stability should be checked regularly by a professionally qualified person to ensure that it will be stable at all times.
- The tailings dump construction methodology should continue to be reviewed during the life of the mine. This should entail the cladding of the sides of the tailings dump with coarse rock for all areas which have a large enough face for machinery to work on. At closure, waste rock cladding should continue to be placed around the tailings facility to ensure that, at all times, there is at least a 1-meter thick layer of waste rock around the tailing's material.
- The upslope water should be diverted around the tailings facility in trenches sufficiently sized to ensure that flood water can be diverted around the site in a sustainable manner.
- Any seepage from the tailing's facility should be caught in a seepage collection pond. This pond should be cleared when the entire tailings facility is rock covered.

5.6 Waste Rock Dumps

- The waste rock dumps should be constructed during the operational phase to have an overall slope
- of less than the angle of repose. The outer slopes should be done in benches 10 m high with 5 m step-ins. These bench characteristics should be checked during the life of the mine to see if they are suitable.
- The stability of the dumps should be checked by a suitably qualified person at regular intervals during the mine's life.
- Coarse rock should cover the outer slopes to ensure that wind erosion is minimised.

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- Water diversion measures should be constructed around the waste rock dump to ensure that the surface run off can pass around the rock dumps in a sustainable manner.
- It should be ensured that large rocks are not left such that the gaps between them can be accessed by humans.

5.7 Low Grade Stockpile

- If at all possible, this low-grade stockpile should be retreated during the operational phase as a mineral resource and processed through the plant; if it is not done, it should remain as a resource stockpile and should be treated similar to the waste rock dumps that will be left behind.
- The radiation levels of this dump should be assessed to see if additional covering of rock with low levels of radioactivity are required.
- The overall slope should be less than the angle of repose and upslope service water diverted around it in a sustainable manner.
- It should be ensured that large rocks are not left such that the gaps between them can be accessed by humans.
- Coarse rock needs to cover the outer slopes to prevent wind erosion.

5.8 Mining Pit

- The sides of the mining pit should be assessed for geotechnical stability prior to closure as part of the on-going monitoring programme during the operational phase of the mine. Wherever significant areas of weakness are found these should be identified and additional areas of bunding will be provided to make it safe if a hazard to people.
- A berm should be constructed around the outer edges of the pit to ensure that all human pedestrian access, vehicles driving, or any animals cannot inadvertently access this area and fall into the pit. This should be done by providing a berm, and stockpiling any rubble on the inner slopes. The intention should be to create a berm of at least 1.5 m high. The berm should be sufficiently far from the pit to ensure that any pit instability or sliding does not affect the integrity of the berm and to ensure that cattle cannot cross it.
- Fences should be erected around the pit to prevent access by livestock and larger mammals. It is recognised that these are however not sustainable in the long-term.
- The berm should be at least 10m from the final pit slope position.
- It is not intended that there should be access to the base of the pit for use of the water by humans or large mammals because there is an expectation that the pit water may become extremely saline and possibly hazardous. Access roads should be blocked powerline and electrical infrastructure
- All onsite electrical reticulation infrastructure should be removed from site or, if the property of Valencia Uranium, should be sold and disposed of. The regional power line will be the property of NamPower and should remain onsite for future use as it will serve the other customers around the area.

5.9 Offices, administration facilities, fences and support areas

- Three years before the planned closure, formal discussions should be held with the surface owner and other potential users of infrastructure to see if any of the site infrastructures can be used in a sustainable manner and whether somebody agrees to take over the management thereof. This management should be ceded to them, and the facilities left behind, if they are deemed to be able to manage this in a sustainable manner. If this does not occur then the facilities should be demolished, the foundations broken down to at least 1 m below ground level and the facilities removed from site.
- Any concrete rubble should be placed on the waste rock dump, or in the pit, and covered with waste rock. All infrastructure such as piping, electrical cabling, etc. should be removed from site to prevent later potential excavation by people trying to recover any sort of saleable or usable scrap.

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5.10 *Water reticulation infrastructure*

- The local boreholes around the site should be left open for use by the land owner or any other future user of the infrastructure, once they have been made safe. The borehole pumps maybe left in place.
- The pipelines from the Rössing water tanks should be removed unless the future user takes control of this line and signs that he/she should maintain and manage this pipeline; if not, the pipes should be removed and any surface disturbance associated with it such as tanks, booster stations, or trenches should be dug up and rehabilitated.

5.11 *Borrow pits and quarries*

- Rehabilitation of the borrow pits entails shaping down of the side walls to produce a landform which grades into the surrounding landscape, while ensuring that, if at all practical, the borrow pit is free draining.
- The borrow pit floor and flattened side walls should be ripped to roughen them up.

5.12 *Access roads*

- Local roads around the actual site of the waste rock dumps and plant and infrastructure areas should be ripped for all areas except those needed to access the facilities for inspection after closure. Wherever there are access roads that could be useable by the surface owner, these should be left.
- Main access road - this road should be maintained before closure and negotiations started with the Namibian Roads Authority for the closure of the mine. If the Namibian Roads Authority cannot maintain this road into the future it should be demolished and removed by Valencia Uranium.
- Crossing through the Khan River - monitoring during the operational phase will determine whether the traffic impact on the Khan River is significant. If this found to be a major issue, then the volume of road users should be restricted to what it was before Mine construction, i.e. the road bed could be lifted to reduce to reduce traffic. If traffic is not a big issue then the road should be left in a good condition and handed over to the Namibian Roads Authority.

5.13 *Management Plans*

For the purposes of this plan, the final land use post-closure for Norasa Uranium at this stage is to return the land back to at least a grazing land use capability as this is the current land use. It should be noted that grazing in this area has to be of low intensity due to the low rainfall. This final land use may be amended as this Closure Plan is revised. Although closure occurs once operations cease, rehabilitation measures should take place as soon as construction commences and should continue through each phase of the Project. The rehabilitation strategies and the necessary closure management measures for each phase of the Norasa Uranium Project are discussed in this section.

A number of Management Plans have been drawn up for Norasa, from which information has been extracted. For more detail on the Conceptual Mine Rehabilitation, Decommissioning and Closure Plan please refer to the Specialist Report (Appendix J - Old Appendices).

5.14 *Monitoring*

5.14.1 *Air*

The directional and fallout dust stations should be maintained for a period of 5 years after the closure of production operations at Valencia, or until a trend is established whereby it is understood what the impact from air erosion is in the longer term. If it is known that dust in excess of the baseline levels are occurring then the source of this dust should be established and suitable mitigation measures should be instituted.

5.14.2 *Water*

Groundwater monitoring should continue for a period of at least five years after the cessation of production activities or until the impacts from the various facilities are understood. These groundwater monitoring points should be left open for future monitoring by Authorities if required, with suitable access control.

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5.14.3 Social Issues

The social impact of the mine closure should be managed for a period of three years after final closure to ensure that any plans and closure activities related to training of staff and resettling of staff have proved successful. Also, the surface owners should be consulted with for a period of three years to ensure that they know how to maintain the various facilities which could have been left behind for them. Monitoring of the social aspects should also take place during decommissioning and closure.

5.14.4 Community Development

The community development impact should be monitored for a period of 3 years after closure. This could be in the form of a trust which will manage community projects or some other co-operative mechanism to be established.

5.15 Reporting and Documentation Government/Authority Reporting:

A final Closure Plan should be submitted to Namibia Authorities for approval prior to closure. Post closure monitoring results should be incorporated into a report and submitted to Authorities for review.

5.15.1 Lender Reporting:

Any reporting to the Lenders will be stipulated in their conditions of approval.

5.15.2 Internal Reporting:

- A representative team from Valencia Uranium will be required to ensure monitoring is ongoing and to liaise with Authorities and I&APs; and
- Monitoring can be up to 5 years - however this will be determined closer to the time.

5.16 Infrastructure during Closure Phase

Table 5.16.2 describes the fate of infrastructural items at closure phase. The metallurgical plant area includes the leach and solvent extraction plant, the acid plant, the crusher and milling circuit, explosives plant and all the associated processing plant infrastructure items. The environmental objectives of the tailings storage facility and the waste rock dumps after closure is to prevent erosion, at a rate greater than the surrounding surface, reduce the radioactive emissions to acceptable levels and the dispersion of dust greater than existing levels. The low-grade stockpile aims to prevent erosion, prevent harmful radioactive emissions and the dispersion of dust if it had to remain behind at closure. During closure, the mine pit will be made as safe as possible for humans and animals at closure without filling the pit. If not required by future users of the property, all power lines, electrical infrastructure, water reticulation infrastructure, offices, administration facilities, fences and support areas will be removed. Table 5.1 shows the timing of activities at closure.


Table 5.16.1: Timing of activities at closure.

Activity\year	0	1	2	3	4	5
Demolition of metallurgical plant		X	X			
Covering tailings facility	X	X	X			
Shaping rock dumps	X	X	X			
Removal of electrical reticulation					X	
Removal of water line from Rössing (if required)					X	
Access road rehabilitation (if required)						X
Shaping and possible covering of low-grade stockpile		X				
Breakdown of offices, admin. facilities etc.				X	X	X
Making the pit safe	X	X				
Closure of waste disposal sites						X


Note: Year 0 refers to when production ceases or closure.

Table 5.16.2: Fate of infrastructural items at closure.


INFRASTRUCTURE	STRATEGIC ACTION DURING CLOSURE
Metallurgical plant	<ul style="list-style-type: none"> • At present it is planned that the metallurgical plant and the associated equipment should be dismantled or demolished, decontaminated and cleared for release (e.g. sale) into the public domain. • As this is a uranium treatment operation, it is expected that metal, rubber and other material surfaces will be contaminated with radionuclides. These items will be decontaminated on site in accordance with the guidelines provided in the mines. • Radiation Protection Programme. • Motors, electrical cabling, etc. should be sold as appropriate after going through a suitable decontamination programme and contamination clearance survey. • The concrete foundations of the plant should either be placed at the bottom of the pit or at the base of the waste rock dumps where they should be covered as directed by the recommendations of the radiation studies to be conducted at closure. All foundations should be removed to at least a meter below ground level or to a depth at which they are no longer considered to be contaminated with radioactive materials. • Where soils have been affected by spillages such as nitrates or hydrocarbons, these soils should be stockpiled and appropriately treated to ameliorate the contamination levels prior to being placed on the tailing's facility. • Soils and concrete contaminated with radionuclides will require to be disposed of into the tailings dam.
Tailings storage facility	<ul style="list-style-type: none"> • The tailings dump will be constructed during the operational phase from a mixture of coarse and finer tailings material. • If the dust generation rate is high, then the tailings disposal methodology should be modified, or other means implemented, to prevent this from occurring. • The stability should be checked regularly by a professionally qualified person to ensure that it will be stable at all times. • The tailing construction methodology should continue to be practised during the life of the mine. This should entail the cladding of the sides of the tailings dump with coarse rock for all areas which have a large enough face for machinery to work on. At closure, waste rock cladding should continue to be placed around the tailings facility to ensure that, at all times, there is at least a 1-meter thick layer of waste rock around the tailing's material. • The upslope water should be diverted around the tailings facility in trenches sufficiently sized to ensure that flood water can be diverted around the site in a sustainable manner. • Any seepage from the tailing's facility should be caught in a seepage collection pond. This pond should be cleared when the entire tailings facility is rock covered.
Waste Rock Dumps	<ul style="list-style-type: none"> • The waste rock dumps should be constructed during the operational phase to have an overall slope of less than the angle of repose. • The outer slopes should be done in benches 10 m high with 5 m step-ins. These bench characteristics should be checked during the life of the mine to see if they are suitable. • The stability of the dumps should be checked by a suitably qualified person at regular intervals during the mine life. • Coarse rock should cover the outer slopes to ensure that wind erosion is minimised. • Water diversion measures should be constructed around the waste rock dump to ensure that the surface run off can pass around the rock dumps in a sustainable manner. • It should be ensured that large rocks are not left such that the gaps between them can be accessed by humans.
Low Grade Stockpile	<ul style="list-style-type: none"> • If at all possible, this low-grade stockpile should be retreated during the operational phase as a mineral resource and processed through the plant; if it is not done, it should remain as a resource stockpile and should be treated similar to the waste rock dumps that will be left behind.

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INFRASTRUCTURE	STRATEGIC ACTION DURING CLOSURE
	<ul style="list-style-type: none"> • The radiation levels of this dump should be assessed to see if additional covering of rock with low levels of radioactivity are required. • The overall slope should be less than the angle of repose and upslope service water diverted around it in a sustainable manner. • It should be ensured that large rocks are not left such that the gaps between them can be accessed by humans. • Coarse rock needs to cover the outer slopes to prevent wind erosion.
Mining Pit	<ul style="list-style-type: none"> • The sides of the mining pit should be assessed for geotechnical stability prior to closure as part of the ongoing monitoring programme during the operational phase of the mine. Wherever significant areas of weakness are found these should be identified and additional areas of bunding will be provided to make it safe if a hazard to people. • A berm should be constructed around the outer edges of the pit to ensure that all human pedestrian access, vehicles driving, or any animals cannot inadvertently access this area and fall into the pit. This should be done by providing a berm, and stockpiling any rubble on the inner slopes. The intention should be to create a berm of at least 1,5 m high. The berm should be sufficiently far from the pit to ensure that any pit instability or sliding does not affect the integrity of the berm and to ensure that cattle cannot cross it. • Fences should be erected around the pit to prevent access by livestock and larger mammals. It is recognised that these are however not sustainable in the long-term. • The berm should be at least 10 m from the final pit slope position. • It is not intended that there should be access to the base of the pit for use of the water by humans or large mammals because there is an expectation that the pit water may become extremely saline and possibly hazardous. Access roads should be blocked
Power line and electrical infrastructure	<ul style="list-style-type: none"> • All onsite electrical reticulation infrastructure should be removed from site or, if the property of Valencia Uranium, should be sold and disposed of. The regional powerline will be the property of NamPower and should remain onsite for future use as it will serve the other customers around the area.
Offices, housing units, ablution, canteen, fences and support areas	<ul style="list-style-type: none"> • Three years before the planned closure, formal discussions should be held with the surface owner and other potential users of infrastructure to see if any of the site infrastructures can be used in a sustainable manner and whether somebody agrees to take over the management thereof. This management should be ceded to them, and the facilities left behind, if they are deemed to be able to manage this in a sustainable manner. If this does not occur then the facilities should be demolished, the foundations broken down to at least 1 m below ground level and the facilities removed from site. • Any concrete rubble should be placed on the waste rock dump, or in the pit, and covered with waste rock. All infrastructure such as piping, electrical cabling, etc. should be removed from site to prevent later potential excavation by people trying to recover any sort of saleable or usable scrap.
Water reticulation infrastructure	<ul style="list-style-type: none"> • The local boreholes around the site and in the Paleochannel should be left open for use by the land owner or any other future user of the infrastructure, once they have been made safe. The borehole pumps maybe left in place. • The pipelines from the Rössing water tanks should be removed unless the future user takes control of this line and signs that he/she should maintain and manage this pipeline; if not, the pipes should be removed and any surface disturbance associated with it such as tanks, booster stations, or trenches should be dug up and rehabilitated.
Borrow pits and quarries	<ul style="list-style-type: none"> • Rehabilitation of the borrow pits entails shaping down of the side walls to produce a landform which grades into the surrounding landscape, while ensuring that, if at all practical, the borrow pit is free draining. • The borrow pit floor and flattened side walls should be ripped to roughen them up.

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INFRASTRUCTURE	STRATEGIC ACTION DURING CLOSURE
Access roads	<ul style="list-style-type: none"> Local roads around the actual site of the waste rock dumps and plant and infrastructure areas should be ripped for all areas except those needed to access the facilities for inspection after closure. Wherever there are access roads that could be useable by the surface owner, these should be left. Main access road - this road should be maintained before closure and negotiations started with the Namibian Roads Authority for the closure of the mine. If the Namibian Roads Authority cannot maintain this road into the future it should be demolished and removed by Valencia Uranium. Crossing through the Khan River - monitoring during the operational phase will determine whether the traffic impact on the Khan River is significant. If this found to be a major issue, then the volume of road users should be restricted to what it was before mine construction, i.e. the road bed could be lifted to reduce traffic. If traffic is not a big issue then the road should be left in a good condition and handed over to the Namibian Roads Authority.

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6 ENVIRONMENTAL MONITORING PROGRAMMES AND PERFORMANCE ASSESSMENTS

Monitoring is required in order to check compliance with agreed upon standards or objectives and targets. During pre-construction, construction, decommissioning and closure monitoring would be used to check compliance with regulations while post closure monitoring is to ensure aftercare and maintenance of post closure objectives. Monitoring helps to establish trends and patterns, assist in predicting non-compliance and describe remedial measures to address non-compliance. Detailed monitoring programmes and protocols should be drawn up once more detail on the mine plans is in hand. These should be drawn up with the input of the Mine Management and relevant Governmental Departments and a copy should be given to the Environmental Manager on site.

There are a number of social and environmental aspects which require monitoring during the phases of the Project. These social and environmental aspects that act as environmental indicators and are most common have been detailed here, however a number of additional monitoring plans, such as toxicological elements, climate change, community health and cultural integration are also possible. Monitoring plans have been included for air quality, hydrogeology, noise, fauna and flora, radiation and performance assessment.

6.1 Air Quality

A baseline fallout dust monitoring programme was initiated on 28 August 2007 to assess the pre-development levels for later comparison with construction and operation conditions. The dust monitoring programme is scheduled to continue for a twelve-month duration, which will allow a more thorough assessment of the baseline conditions, taking all seasonal variations, including fluctuations in wind direction and velocity, into account. Due to the extremely arid nature of the site, it is not anticipated that rainfall will have a substantial effect on the baseline dust levels. Initial dust fallout results from the sampling period 28 August to 4 December 2007 suggest that the baseline dust in the area is well within the slight category as determined by DEAT, South Africa. Annual monitoring of the dust fallout will facilitate the assessment of any detrimental effects to the surrounding environment. In addition to the continuation of further monitoring, assessment strategies must continue throughout construction, operation and into closure as the impact from dust is potentially one of the more severe impacts and the efficacy of the proposed Management Plan will require scrutiny. Furthermore, an Air Pollution Control System (APCS) should be developed for Norasa Uranium Mine to reduce and control all main contributing sources. This APCS can be incorporated into the EMS (Environmental Management System) of the Mine.

6.2 Hydrogeology

Groundwater level and quality monitoring commenced in 2006 and needs to continue for all phases of the mine's operations. The groundwater monitoring includes the observation of:

- Water levels in the aquifers (Fractured, Khan and Paleochannel Aquifers);
- Continued monitoring of heavy metals and radionuclide elements in the aquifers, plus the observation of the general groundwater quality; and
- Moisture monitoring in the waste dumps and particularly in the tailings dump.

Established monitoring boreholes: Fourteen monitoring boreholes have been established, based on inferred groundwater flow directions, location of geological lineaments and/or structures as well as surface flow patterns and different water quality occurrences. For detailed descriptions and illustration of monitoring boreholes, refer to Figure A6 in Appendix B of the Hydrogeological Study. Monitoring holes MH1 to MH5 are for monitoring possible impacts on the Khan River Aquifer. The remainder of the proposed boreholes are all related to possible flow in geological structures. The geological structure on which MH9 was drilled is so far the most significant in terms of transmissivity. Monitoring at strategically drilled boreholes on this structure would provide information on groundwater that would enter (flowing into) and leave (flowing out of) the EPL. There is also a monitoring borehole in the Paleochannel.

Proposed additional monitoring points: Further monitoring boreholes must be constructed once the design of all the mining facilities are finalised, to ensure adequate monitoring around these facilities.

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Drilling of additional monitoring boreholes is recommended, based on the current mine plan (Appendix B). Final number and placement of these monitoring holes will be made after existing and new data are evaluated.

Monitoring of abstracted groundwater: Continuous monitoring of all groundwater abstracted from the license area, in combination with water level data, would provide a long-term water balance of the Fractured Aquifer system, the Khan River Aquifer and the Paleochannel.

Springs and seepages: The soil/water at some of the springs should be regularly sampled and analysed to provide for easy monitoring of the groundwater in areas without monitoring boreholes, e.g. between the EPL and the Khan River.

Groundwater monitoring procedures: The procedure for groundwater sampling adopted during this project comprises the installation of dedicated pumps into the majority of the monitoring holes (based on practicality). These pumps were sealed into the monitoring holes to prevent tampering with and theft of the installed devices. Installation of dedicated pumps prevents the risk of cross contamination between the different monitoring holes and also eliminates the generation of decontaminated water from washing of equipment shared between monitoring holes. The air driven bladder pump, a low flow sampling technique, was chosen as the most appropriate to ensure high quality groundwater samples, since this does not agitate the water and turbulence problems are reduced. Analysis of field parameters, measured during purging, ensures that non-stagnant water is sampled.

6.3 Noise

The development of a mine in a remote area will increase ambient sound levels from the operation of machinery, vehicles and blasting. The absence of many receptors close to the proposed Norasa Mine minimises the significance of the impact, but for the people and areas who may be affected the impact is significant.

The baseline monitoring needs to continue during the operations to determine the impact from the plant, earthmoving machinery and blasting. The monitoring needs to ensure that it takes place during the differing weather conditions occurring at Site.

Once the sound power level specifications for construction and the operational plant are available, it will be possible to process the noise model, if required. It may also be pertinent during a Strategic Environmental Assessment (SEA) for the region to consider the baseline sound levels and noise impact of additional heavy vehicles travelling on the B2 National road.

6.4 Fauna and Flora

A vegetation monitoring programme will be developed and implemented by a suitably qualified organisation. Discussions in this regard have been initiated with the Environmental Evaluation Associates of Namibia (EEAN), on behalf of a consortium comprising Desert Research Foundation of Namibia (DRFN), Gobabeb Training and Research Centre (GGB), Namibian Botanical Research Institute (NBRI) and Biodata Consulting Services.

6.5 Radiation

The management and monitoring aspects regarding radiation will be focussed on the Radiation Protection Programme Management Plan (RPPMP) and the Radiation Protection Programme (RPP). The following aspects of the RPP are of particular importance and require special attention during the development period of the RPP and the management review process in 2008 and 2009. These aspects are described in more detail in the Radiation Specialist Study Report (Alara Consultants CC, 2008):

- The ALARA review programme;
- The Design of the Mining Operations and the Processing Plant;
- The Assessment of Radon Source Terms and the Dispersion of Radon from the Norasa Site;
- The Assessment of Particulate Source Terms and the Dispersion of Particulates from the Norasa Site;

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- The Selection of Gaseous and Particulate Dispersion Models;
- The Siting and Design of the Tailings Facility, Ore and Waste Rock Stockpiles;
- The Radioactive Waste Management Programme;
- Decontamination and Washing Facilities;
- Physical security;
- Transport of Radioactive Materials;
- The Appointment of Staff to Implement the Radiation Protection Function; and
- Document control.

Public exposures to radiation will occur during the operational phase and for a long period after closure of the mine. The draft RPPMP provides a framework within which to assess these potential radiological impacts through the source term characterisation and the various prospective safety assessments from construction through to mine closure and beyond. The results of these assessments will then be used to determine the specific design, engineered and administrative controls that comprise the various components of the RPP. This process will take account of specific public concerns with regard to the radiological impacts and in addition will ensure that doses are kept ALARA during the lifetime of the operation and after closure.

6.6 Performance Assessment

The EIA and EMP will be used as a basis to compile an Environmental Management System (EMS) that will comply with the ISO 14001 requirements. The EMS requires planning, implementation, monitoring and the corrective action to close the cycle. Legal compliance and EMS audits will be conducted by professional consultants throughout the life of the mine to monitor the Mine's progress with meeting its commitments as contained in the EIA and EMP and to advise on any additional mitigation or intervention measures that are needed. A report will be submitted to Mine Management once a year covering all aspects investigated during the audit. The Management Review will provide suggestions and recommendations that outline the progress status of the rehabilitation programme, impacts of current operations and any improvements which could be made.

The audits will take into consideration the management principles and strategies stated in the EMP, and assess whether this strategy is providing the required results. Any flaws found in the management process will be included in the review along with the recommended mitigation measures. A report will be compiled in accordance with the relevant legislation and regulations (Envirolex, 2007) twice a year to Mine Management, who may then decide the appropriate actions to be taken. The required financial provision will be updated annually.

7. CONCLUSIONS

Valencia Uranium contracted NEHC CC to undertake a comprehensive EIA process to evaluate the impacts from its proposed operation and to compile a management plan to address these. These environmental assessments and management plans have been completed and the potential impacts have been identified, characterised and rated. Mitigation measures have been proposed for all significant impacts and compiled into the EMP for each phase of the Project.

Valencia Uranium requires the EIA/EMP to meet the requirements of:

1. The Namibian Environmental Assessment Policy;
2. The Mining License application;
3. Canadian Companies operating outside Canada and
4. Ultimately the Namibian EMA 7 of 2007.

Accordingly, comprehensive biophysical and socio-economic baselines were compiled for the proposed Project and surrounding areas and a complete Public Participation Programme was conducted. Although the detailed Project design was not complete at the time of compiling this report, and it may change as it is conducted, the information contained in this Report provides a basis for examining potential impacts of the Project on the receiving environment. If the Project planning has to change substantially from that evaluated, then the EIA/EMP needs to be updated.

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From the assessment conducted, the principal areas of impact are as follows.

Construction Phase:

- Positive socio-economic impacts;
- Dust generation (a potentially negative biophysical and health impact);
- Clearing of land affecting vegetation and soil;
- Exposure to radiation; and
- Water use and contamination (a potentially negative biophysical, health impact and reduction of a resource).

Operational Phase:

- Positive socio-economic impacts;
- Dust generation (a potentially negative biophysical and health impact);
- Water use and contamination (a potentially negative biophysical and health impact);
- Substantial economic development (a potentially positive impact);
- Increased traffic on public roads (a potentially negative biophysical and safety impact);
- Increased noise levels due to heavy machinery and blasting (a potentially negative biophysical and health impact); and
- Exposure to radiation (a potential negative biophysical and health impact for employees).

Decommissioning and Closure:

- Dust generation (a potentially negative biophysical and health impact);
- Potential for the long-term erosion of the tailings dump and low-grade stockpile;
- Mine closure (a potentially negative impact in socio-economic environment); and
- Exposure to radiation (a potential negative biophysical and health impact for employees and surrounding communities).

The proposed Norasa Uranium Mine holds the promise of economic development that will be a positive impact on a National scale. The product to be produced may help reduce greenhouse gas emissions on an International scale as it will be used as a fuel substitute for fossil fuels. This will be in accordance with the Non-Proliferation Treaty to which Namibia is a signatory. Substantial environmental degradation may occur on a local scale. These impacts can be effectively mitigated but the area will be left with a different topographical shape at the rock dumps, tailings dump and with a deep pit. Management plans have been proposed to reduce the negative impacts and enhance the positive impacts of the proposed operation. The proposed management plans have been compiled but need to be refined and updated as the operations progress to ensure their relevance and effectiveness. As is usual on well-run mines, these plans will continue to evolve throughout the life of the Project.

The ultimate goal of the EMP is to meet social, economic and biophysical objectives to such an extent that the overall product of the activity will not result in a net negative impact. The economic benefit of the proposed Norasa Uranium Mine should outweigh the negative environmental impacts addressed during this assessment.

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
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ADDENDUM C: EMERGENCY RESPONSE

The operation of the proposed Plant and associated infrastructure requires installation of equipment that will house and contain hazardous substances. At the same time, the transport of dangerous goods will form an integral part of the operation of such a development.

Accidents such as fire, explosion, spills or release of hazardous materials endanger life, property and the environment.

Emergency Planning:

- Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimized. This will also ensure that potential liabilities and damage to life and the environment are avoided.
- Adequate emergency facilities must be provided for the treatment of any emergency on the site,
- The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle.
- Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times.
- All employees must receive documented initial training and annual refresher training on the facility's Fire
- Emergency Plan and Evacuation Plan.

Management of Fire Risks

- "No Smoking" and "No Open Flame" signs to be prominently displayed.
- The Risk Controller is responsible for ensuring that fire risks are surveyed, documented and assessed. Adequate numbers of the correct equipment have been installed.
- Equipment must comply with the Automatic Sprinkler inspection Bureau (ASIB), insurance and local Fire
- Department requirements and recommendations. The Risk Controller must monitor and ensure that the standards are complied with.
- Departmental Managers are responsible for ensuring that the requirements of this standard are adhered to within their respective area of responsibility. They must ensure that equipment is operational, kept clean, not damaged and is refilled immediately after use.
- The maintenance, repair or replacement of any item of fire equipment is the responsibility of the Emergency coordinator, in liaison with departmental managers. Risk Controller to assist

Incident Reporting

- The contractor shall take corrective action to mitigate an incident appropriate to the nature and scale of the incident, immediately after the occurrence of the incident.
- Residual environmental damage that remains after having taken corrective action shall be rehabilitated,
- Change operating procedures where necessary to prevent recurrence of similar accident,
- Record all incidents on an Environmental Incident Report, within 24 hours of the incident occurring. Additional documents, including photos shall be appended to the incident report to provide a comprehensive record of the incident and the corrective and preventative action taken. Failure to do so shall result in a penalty.
- All incidents will be investigated in collaboration with the ECO. The focus of these investigations shall not be to apportion blame to specific employees, but to ascertain the root cause of the incident and to prevent a recurrence of similar incidents.

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ADDENDUM D: SPILL CONTINGENCY

It is important that the responsible party shall adhere to National emergency response procedures. All officials of the responsible organ are required to adopt these standards that include spill and leak detection and management.

The Material Safety Data Sheets for the material and emergency response will be stored on site. The MSDS indicate the relevant actions to be taken should certain incidents (spills/exposure) occur with raw materials/products.

Customer Spill and Leak Procedure

The avoidance of spills and leaks is especially important from a safety and legal point of view. Spills or leaks can be dangerous as they can cause a fire or explosion and may involve high cleaning costs when natural resources are contaminated. Installations are designed and built to limit the possibility of product spills and leaks. Within your premises you are responsible for environmental control and must ensure that pollution near tank systems is avoided at all times. If the Stock Monitoring and Control Procedures are used properly, it will be possible to detect a leak at an early stage. Damage to the environment and cleaning costs will then be minimized.

Spill and Leak Prevention

- All personnel who have anything to do with fuel or oil use and tank systems should know their individual responsibilities for controlling and/or reducing pollution. Employees should be well informed and apply the appropriate techniques.
- All employees involved in spillages and leaks must be informed about the spill/leak emergency response plan and must know how to act in the event of a spillage or leak.
- Equipment installed or used to avoid pollution should be operated efficiently and well maintained,
- Spill clean-up equipment, like absorbing fibres (Drizit), squeegees, sandbags, etc. should be located in a clean, dry and easily accessible storage facility.
- Spill fighting material should be kept near places where spills and leaks are most likely to occur, i.e. near pumps. Customers should have materials like absorbing fibres (Drizit) and sandbags in place. **The proposed procedure:**
- Place two 2 000-liter waste bins at each area.
- One bin to be used for storage of unused fibres (e.g. unused Drizit) and one bin to be used for receiving the used fibres (e.g. used Drizit).
- Apply the fibres (Drizit) as per the instructions as soon as the spill occurs. Used fibres (Drizit) should be disposed of in an environmentally friendly way by either burning or dispatching to a class 1 waste dump, using companies such as Waste-tech.
- Ensure that Emergency Spill/Leak Response Plans and the necessary associated equipment are
- appropriate for your operation and are the subject of regular exercises, where possible in conjunction with the industry and/or local authorities.
- Provide regular training for key response employees in dealing with emergencies.

Spill Response

It is not possible to give detailed recommendations on how to clean up specific kinds of spillages as the method and materials used will depend on the type of product handled, the amount involved, the wind, weather, equipment available, etc. However, all spills, minor or major, should be cleaned up as soon as they occur. Whatever the spill, there are five basic steps in dealing with spillages:

- Limit the spillage;
- Contain the spillage;
- Remove the spilled product;
- Final clean up and soil rehabilitation; and
- Complete spillage report.

Containment of the oil near the point of spillage localizes the problem, minimizes pollution and makes it easier to remove the pollution. Cleaning of the spill depends on whether there is a major spill and

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whether there is a spill on paving or on soil. A major spill is any spill where more than 200 litres of product is involved.

Minor Spills

Minor spills (less than 200 litres) should be treated as follows:

Soak up the spill with unused fibres (e.g. unused Drizit) from the waste bin. If the spill has soaked into the ground, the soil should be ploughed to allow aeration. Water can then be used to bring the oil spill to the surface and mopped up immediately with absorbent fibres (Drizit). Collect the used fibres (used Drizit) in the bin for used fibres.

Major Spills

Spills less than 200 litres but threatening to streams, rivers, water supply, etc. and incidents of lesser magnitude that have or might attract public, press or authoritative attention have to be considered as major spills. Major spills of oil or fuel on paving or non-permeable surfaces should be treated as follows:

- Wherever possible, try to limit the spillage by turning off all activities that caused the spill, i.e. closing a valve that has been accidentally opened, plugging the hole where the product is leaking or stop pumping through a ruptured pipeline, hose or overflowing tank.
- Contain spill immediately with absorbing fibres (e.g. Drizit), sandbags, sand or soil.
- Prevent any of the spilled oil substances from entering your drain, storm water systems, septic tanks or from contaminating any natural water systems by forming a barrier from soil, sand, sandbags or absorbing materials. If any of the spill should enter the storm water system, the flow must be intercepted before it can contaminate other environments.
- If natural water systems are contaminated, use straw bales, absorbent booms and sandbag dams for containment and absorption.
- Mop up as much of the spillage as possible by using absorbing materials,
- Contact your field manager and ask for support.

Major spillage of oil or fuel on soil or permeable surface should be treated as follows:

- Wherever possible, limit the spillage by turning off all activities that causes the spill. Close all applicable valves, plug the hole where the product is leaking or stop pumping through a ruptured pipeline, hose or overflowing tank.
- Contain the spill and prevent spread of the substance by using sandbags, sand or soil, absorbent booms or planking to divert flow.
- Prevent any of the oil substances from entering your drains, storm water systems or septic tanks, or from contaminating any natural water systems by forming a barrier from soil, sand, sandbags or absorbing materials.
- Prevent any of the oil substances from contaminating groundwater. It may be necessary to remove contaminated soil for disposal or rehabilitation.
- Remove or mop up as much of the spill as possible by using spill fighting materials. Water the soil to bring oil to the surface and "mop up" with absorbent material such as Drizit.
- Plough soil for aeration and apply fertilizer/suitable neutralizing chemicals if viable (not detergents).
- Contact your field manager and ask for support.
- All contaminated spill prevention material (such as fibres, Drizit, soils, sandbags etc) have to be disposed of in an environmentally acceptable way, e.g. by using Waste-tech.

Spill Reporting

The MET, external auditor, fuel suppliers and local protection services should be notified whenever:

- A spill in excess of 200 litres occurs. For oil spill incidents of lesser magnitude with impact on water sources, rivers, streams, etc., or that are likely to attract public or press attention, the supplier should be notified.
- For every major spill (over 200 litres of product) that occurs, the Incident Report Form must be completed. Investigate spill cause and implement recommendations for preventing re-occurrence.
- If watercourses and ground water are contaminated, then the MET and MAWF must be notified.

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Customer Inspection

Site operating staff should check regularly if the tank system, pipe-work and equipment are in good condition. For example, a dirty pump or weathered hose or tube might need maintenance. A spillage resulting from malfunctioning equipment might be prevented. Inform fuel supplier when tank systems, pipe-work or equipment need maintenance.

Leak Reporting Procedure

- Notify the supplier immediately of any suspected leaks in a tank system or malfunctioning of equipment.
- Any loss or suspected loss must be confirmed in writing.
- For every suspected leak in aboveground or underground tanks the Incident Report Form has to be completed.
- Investigate leak cause (in co-operation with supplier) and implement recommendations for preventing reoccurrence.

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Appendix A
Clearance Certificates

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REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Directorate of Environmental Affairs
Private Bag 13306, Windhoek
Tel. + 264 61 249015; Fax. + 264 61 240339

Our Ref. N 24/2/7

Enquiries: Saima Angula
saima@dea.met.gov.na

03rd December 2007

Dunefield Mining Company (Pty) Ltd
P.O. Box 40155
Ausspanplatz - Windhoek
Namibia

ENVIRONMENTAL CONTRACT FOR EXCLUSIVE PROSPECTING LICENCE 3638


Please study the **Environmental Conditions**, should you be satisfied with them, kindly initial each page and sign the last page.

Once you have done this, please return the original to me so that it can be counter-signed. Should you not agree with any of the environmental conditions, you are invited to propose modifications for us to consider.

Thank you,


 Dr. K. Shangula
 Permanent Secretary


Environmental Contract for EPL 3638

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ENVIRONMENTAL CONDITIONS FOR EXCLUSIVE PROSPECTING LICENCE 3638**1. Pollution and waste**

1.1 No toxic or hazardous chemicals may be brought into the prospecting area or deposited thereon (this excludes the use of petrol & diesel as fuel).

1.2 All domestic refuse and industrial waste will be deposited in a designated municipal refuse dump at regular intervals, but at least once every three months. No refuse may be dumped or buried within the prospecting or surrounding area, except if the landowner has an own specific designated refuse site for this purpose. Dumping of refuse on this site shall be negotiated with the landowner. It is permissible to store refuse temporarily in containers until such time as they are ready for removal. During such temporary storage, all paper and plastic refuse should be incinerated to avoid wind-blown litter. All attempts should be made to keep the area clean.

1.3 Pit latrines (toilets) will be provided for, and used by, all staff. Non-specific shallow pits may be used for toilets where small groups of people (< five) are staying in an area for less than one week with approval of the landowner.

2. Vehicles and Earthmoving equipment

2.1 Vehicular movement shall be restricted to existing fence-lines, roads and tracks wherever possible. Where it is unavoidable that vehicles and machinery need to create new roads or tracks, these new access routes shall be carefully planned so as not to cause unnecessary environmental damage. In any event, no new road may be established without the prior approval of the landowner.

2.2 Any trenches where prospecting or mining has been completed, shall be systematically backfilled with overburden and topsoil, and the area rehabilitated to as near as possible a natural state.

2.3 Notwithstanding clause 2.1, during the reconnaissance and planning phase of exploration, off-road vehicle access is permitted to areas where tracks are sparse. Specifically this access is to define places to which tracks may at a later stage be constructed. Such access is subject to prior approval by the landowner.

3. Water

3.1 Water shall be used sparingly and all reasonable attempts will be made to avoid water wastage.

3.2 Water shall be used only for human consumption, washing and essential prospecting-related activities.

4. Protection of Fauna and Flora

4.1 No hunting wood or plant collecting shall be allowed within the prospecting or surrounding area. The collecting of dead wood for domestic use may only take place with the concurrence of the landowner.


4.2 Every effort shall be made avoid starting veld fires. Should a fire occur as a direct or indirect result of the companies' activities, the company/ claim holder shall make every reasonable effort to extinguish such fire.

4.3 The company/ claim holder shall provide written instructions to its entire staff and sub-contractors to this effect.

5. Interaction with neighbouring communities and / or tourists

5.1 The company/ claim holder shall maintain good relations with any surrounding communities, and shall not deny any person transit rights through the prospecting area. This condition is mainly relevant for prospecting activities on state lands.

Environmental Contract for EPI 3638

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6. Rehabilitation

- 6.1 The company/ claim holder shall ensure that sufficient funds are available to affect appropriate rehabilitation of environmental damage.
- 6.2 The company/ claim holder shall ensure that rehabilitation of exploration trenches / holes / pits will take place within 8 weeks of the completion of exploration at any site.
- 6.3 Under no circumstances, shall trenches / holes / pits be left in a state where their existence endangers human or animal life.

7. Monitoring and reporting

- 7.1 The company/ claim holder shall submit every six months an Environmental Report to the Ministry of Environment and Tourism according to the prescribed format.
- 7.2 Staff from the Ministry of Environment and Tourism and / or the Ministry of Mines and Energy may at any time inspect prospecting areas.

8. General


The conditions stated in this notification are in addition to and do not detract from any obligations which the prospecting company may have under the Minerals (Prospecting and Mining) Act, 1992 The Nature Conservation Ordinance (Ordinance 4 of 1975), or the attached Pro-Forma Environmental Contract including the Environmental Questionnaire for Prospecting in Namibia, being Appendix A.



 Dr. K. Shangula
 Permanent Secretary
 Ministry of Environment and Tourism


 14 DEC 2007 2007/12/14
 Office of the
 PERMANENT SECRETARY
 REPUBLIC OF
 NAMIBIA Date

We agree to abide by the Pro-Forma Environmental Contract and the Environmental Conditions.



 for Dunefield Mining Company (Pty) Ltd
 Dr. Roger CRANE, PhD
 Chief Geologist

13th 2007
 Date

Environmental Contract for EPL 3638

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REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: +264 61 2842701
 Fax: +264 61 240339
 Enquiry: Ms. Saima Angula

Capital Centre, 6th Floor
 Private Bag 13306
 Windhoek

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Managing Director
 Valencia Uranium Mine (Pty) Ltd
 P.O. Box 40155
 Ausspannplatz
 Namibia

Dear Sir or Madam

SUBJECT: ENVIRONMENTAL CLEARANCE FOR MINING ACTIVITIES AT FARM VALENCIA NO. 122, ERONGO REGION, NAMIBIA

The commitments made earlier are sufficient as it have made an adequate provision of the environmental management during your activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.

In view of the fact that your project is located in an environmentally sensitive area, this Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project. From this perspective, I issue this clearance with the following condition: Consultations with all key stakeholders should be maintained and written consent obtained from them.

On the basis of the above, this letter serves as an environmental clearance for the project to proceed. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable of any wrong doing, for insufficient information, nor any adverse effects that may arise from this project activity. Instead, full accountability rests with the proponent and his/ her consultants.

This environmental clearance is valid for a period of 3 (three) years, unless withdrawn by this office.

Yours sincerely,


 Teofilus Nghitila
 ENVIRONMENTAL COMMISSIONER



All official correspondence must be addressed to the Permanent Secretary

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REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

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 Dr Kenneth Kaunda Street
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 Windhoek
 Namibia

E-mail: rikka.shikongo@met.gov.na

Enquiries: Ms. Rikka Shikongo

04 July 2017

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Managing Director
 Valencia Uranium Mine (Pty) Ltd
 P. O. Box 8416
 Swakopmund

Dear Sir/Madam

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR MINING ACTIVITIES AT FARM VALENCIA NO. G122 AND FARM NAMIBPLAAS 93, ERONGO REGION

Environmental Management Plan submitted is sufficient as it made provisions of the environmental management concerning the activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored from time to time.

This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project.

On the basis of the above, this letter serves as an environmental clearance certificate for the project to proceed. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from this project's activities. Instead, full accountability rests with Valencia Uranium Mine (Pty) Ltd and his/her consultant.

This environmental clearance certificate is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

Yours sincerely,


 Teofilus Nghitila
 ENVIRONMENTAL COMMISSIONER



“Stop the poaching of our rhinos”

All official correspondence must be addressed to the Permanent Secretary

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