ANNEXURE O:
DRAFT SOCIAL AND ENVIRONMENTAL MANAGEMENT PLAN

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SOCIAL AND ENVIRONMENTAL MANAGEMENT PLAN: Rössing Uranium Mine Expansion Project ~

Prepared in conjunction with the Social and Environmental Impact Assessment Phase 2b for the Proposed Rössing Uranium mine expansion project

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ACRONYMS AND ABBREVIATIONS

Aurecon	Aurecon South Africa (Pty) Ltd
GHG	Greenhouse gas
H&E	Health and Environment
ha	Hectare
HAZOP	Hazard and Operability Study
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
HSE	Health, Safety and Environment
I&APs	Interested and Affected Parties
ISO	International Standards Organisation
km	Kilometre
km/h	Kilometre per hour
km^2	Square kilometre
m	Metre
m^2	Square metre
mamsl	Metres Above Mean Seal Level
MET	Ministry of Environment and Tourism
MET:DEA	Ministry of Environment and Tourism: Department of Environmental Affairs
mm	Millimetre
MME	Ministry of Mines and Energy
MOU	Memorandum of Understanding
OHS&E	Occupational Health, Safety and Environment
OHSEC	Occupational Health, Safety, Environment and Community
PPE	Personal Protective Equipment
Rössing Uranium	Rio Tinto Rössing Uranium Limited
SEIA	Social and Environmental Impact Assessment
SEMP	Social and Environmental Management Plan

BACKGROUND AND INTRODUCTION

BACKGROUND

HISTORY AND CONTEXTUALISATION

Rio Tinto Rössing Uranium Limited (Rössing Uranium) has operated an open pit uranium mine in the Erongo Region of Namibia since 1976. As a result of the upward trend in uranium prices on the international market, and projected further increases in future, Rössing Uranium is able to consider the possible expansion of its operations. The increased demand for uranium is primarily driven by rapidly growing international energy demands and associated increased future reliance on nuclear energy. Rössing Uranium is thus considering extending its life of mine plan. Consequently, the associated social and environmental issues are being assessed in a multiphase Social and Environmental Impact Assessment (SEIA), focusing on specific expansion project components. The current SEIA Phase 2b for the expansion project addresses the following infrastructure components:

- Expanded SJ open pit;
- Expanded waste rock dumps;
- New ore crushing plant; Expanded tailings facility;
- New heap leach facility; and
- New ripios disposal area.

INTRODUCTION

The purpose of this SEMP is to ensure that key Occupational Health, Safety, Environment and Community (OHSEC) aspects and mitigation measures are identified and implemented during the life cycle of the proposed mine expansion activities and components. These management aspects and mitigation measures have been derived from desktop studies as part of the SEIA, plus detailed specialist studies supported by industry best practice, case studies, known site-specific biophysical characteristics, constraints and limitations, and issues and concerns raised by the relevant authorities and stakeholders.

The SEMP is intended to serve as a management guideline to ensure responsible OHSEC management of activities on a day-to-day basis for the entire project life cycle. The SEMP is also aimed at addressing concerns raised by environmental interest groups, the general public, and authorities with regard to responsible management, the control of these activities and ensuring that all interests are considered and catered for. The SEMP is submitted together with the SEIA to allow authorities to take an informed decision when considering the application and also to review and, if required, have input in the manner in which the expanded mine and associated activities are managed into the future.

The SEIA Phase 2b of the mine expansion project considers the components or facilities which correspond with the spatial layout in Figure 1 below.

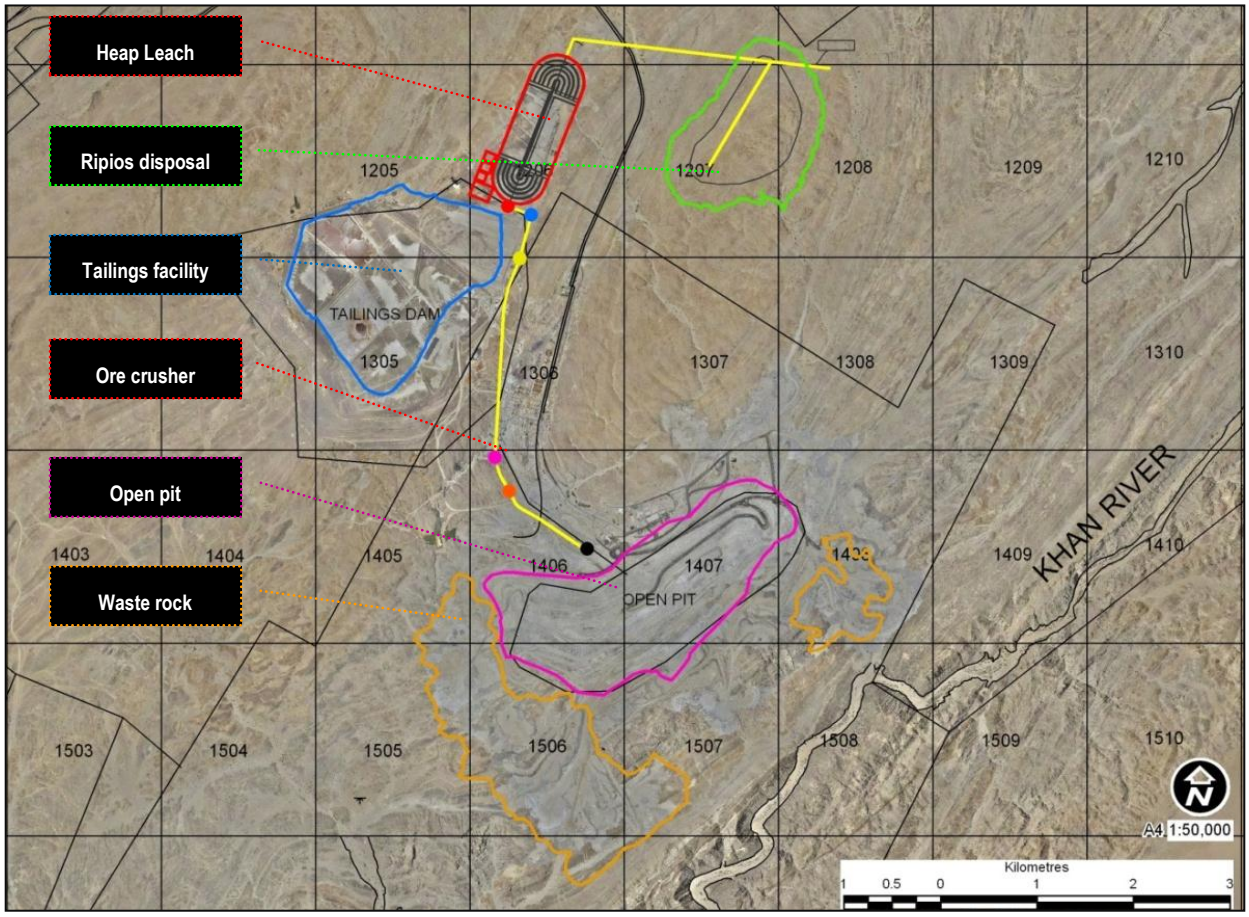

Figure 1: Overall layout of the mine expansion components being assessed

The inherent ecological sensitivity, due to the water scarcity and the slow-paced succession[1] which characterises the desert ecosystem, is a major consideration for mining activities in the area. The SEIA aims to identify, assess and mitigate potential social and environmental impacts associated with all phases of the proposed mine expansion project. Best practice, existing Rössing Uranium Health, Safety, and Environment (HSE) policies and procedures and specific mitigation measures identified during the SEIA phase have been carried forward and summarised in the SEMP. The objective of the SEMP is to serve as a working document to assist Rössing Uranium in managing their day-to-day activities, as they relate to the expansion components, in an environmentally responsible manner. The SEIA addresses the following general social and environmental aspects associated with the mine expansion:

- Air quality;
- Archaeology;
- Biodiversity;
- General solid waste;
- Ground vibration and air blast;
- Groundwater contamination;
- Hazardous solid waste;
- Noise;
- Occupational health and safety;
- Radiological public dose;
- Socio-Economic;
- Traffic; and
- Visual.

[1] Succession: relates to the rate at which habitats, as dictated by vegetative structure and type, are able to regenerate after disturbance and move from pioneer vegetation types, through intermediary to climax vegetation type.

The SEMP addresses four distinct temporal phases, namely design, construction, operational and closure phases, each with specific mitigation measures identified relating to the key social and environment aspects of each phase and are presented under separate sections and aims to improve the functionality as a working document.

This SEMP has adopted the structure used previously for the SEMP incorporated in the Rössing Uranium Mine Expansion SEIA Phase 1 and the Exploration Drilling SEMPs Phase 1 and Phase 2[2], since these were found to be acceptable to both Rössing Uranium and the MET:DEA, and facilitated cross-referencing to and integration with the existing Rössing Uranium Health, Safety and Environment (HSE) management system. The document is divided into the following main sections, as described below:

Section: Planning and Statutory Requirements provides a summary of the planning context in which the project has been undertaken and a summary of the relevant pieces of legislation informing the legal process requirements.

Section: Organisational Framework and Management System deals with the delegation of duties to ensure accountability and the effective implementation and monitoring of this SEMP is carried out. Matters relating to the integration of the mine expansion into the existing HSE management system are also described. The objective is to measure, record and demonstrate on-going compliance with relevant legislation and Rössing Uranium company policies and procedures regarding OHSEC management through implementation of the specified OHSEC mitigation measures.

Section: Design Phase focuses on the management of social and environmental impacts associated with the detailed design and planning phase for the various expansion components and expanded activities. This section describes the OHSEC mitigation measures that require consideration and implementation in the design phase, and relates to the operational phase of the components in that provision has to be made in the design to accomplish certain operational requirements.

Section: Construction Phase focuses on the management of social and environmental impacts associated with the construction or preparation phase of the various expansion project activities. This section describes the use and implementation of the OHSEC mitigation measures and details construction phase administrative and contractual arrangements. These mitigation measures deal with general OHSEC issues typical of construction projects as well as those specific to the respective components included in the SEIA Phase 2. The mitigation measures are presented in a table format and are written in a form and language that is consistent with tender and contract documentation typical of engineering contracts, thus allowing for integration into the tender documents and technical specifications. This integration into the tender and technical specifications is of crucial importance, since compliance with the conditions of the authorising authority as well as the various non-statutory mitigation measures and OHSEC best practice becomes contractually binding on the successful contractors. By entering into contract with Rössing Uranium, the Contractor is obligated to comply with the various requirements, as well as making provision for the necessary budgetary provisions in achieving such compliance in the tendered amount.

Section: Operational Phase deals with OHSEC management aspects associated with the operation of each of the SEIA Phase 2 components. This section aims to establish an effective compliance monitoring structure to be integrated into Rössing Uranium's HSE management system, which is consistent with the ISO:14001 and ISO:18001 management systems. The objective is to measure, record and demonstrate on-going compliance with relevant legislation and Rössing Uranium company policies regarding OHSEC management through implementation of the specified OHSEC mitigation measures, best practice and actions required to ensure that on-going operations of the various project components are carried out in a

[2] Exploration SEMPs were compiled for mineral exploration activities occurring to the south of the Khan River, where the Rössing Uranium Mine Licence Area overlaps with the Namib Naukluft Park.

controlled and responsible manner and that potential negative social and environmental impacts identified in the SEIA are minimised.

Section: Closure Phase provides potential OHSEC considerations that should be revisited at the decommissioning phase for each of the various components. This section is not prescriptive due to there being no absolute certainty regarding the future timing of the decommissioning phase and the fact that a Closure Management Plan (Rio Tinto, 2005) is in place. The latter will require updating to address Rössing Uranium's expansion project.

PLANNING AND STATUTORY REQUIREMENTS

PLANNING CONTEXT

As a significant contributor to the Namibian economy, Rössing Uranium's role in local and regional economic development requires that they demonstrate adherence to sound environmental practices. The decision to pursue possible expansion of their operations thus needed to be underpinned by informed strategic planning. To this end, the hierarchy of policy, planning and procedural documentation seen in Figure 2 reflects the point of departure for the proposed expansion project and the role of the SEMP is also represented within this broader strategic context.

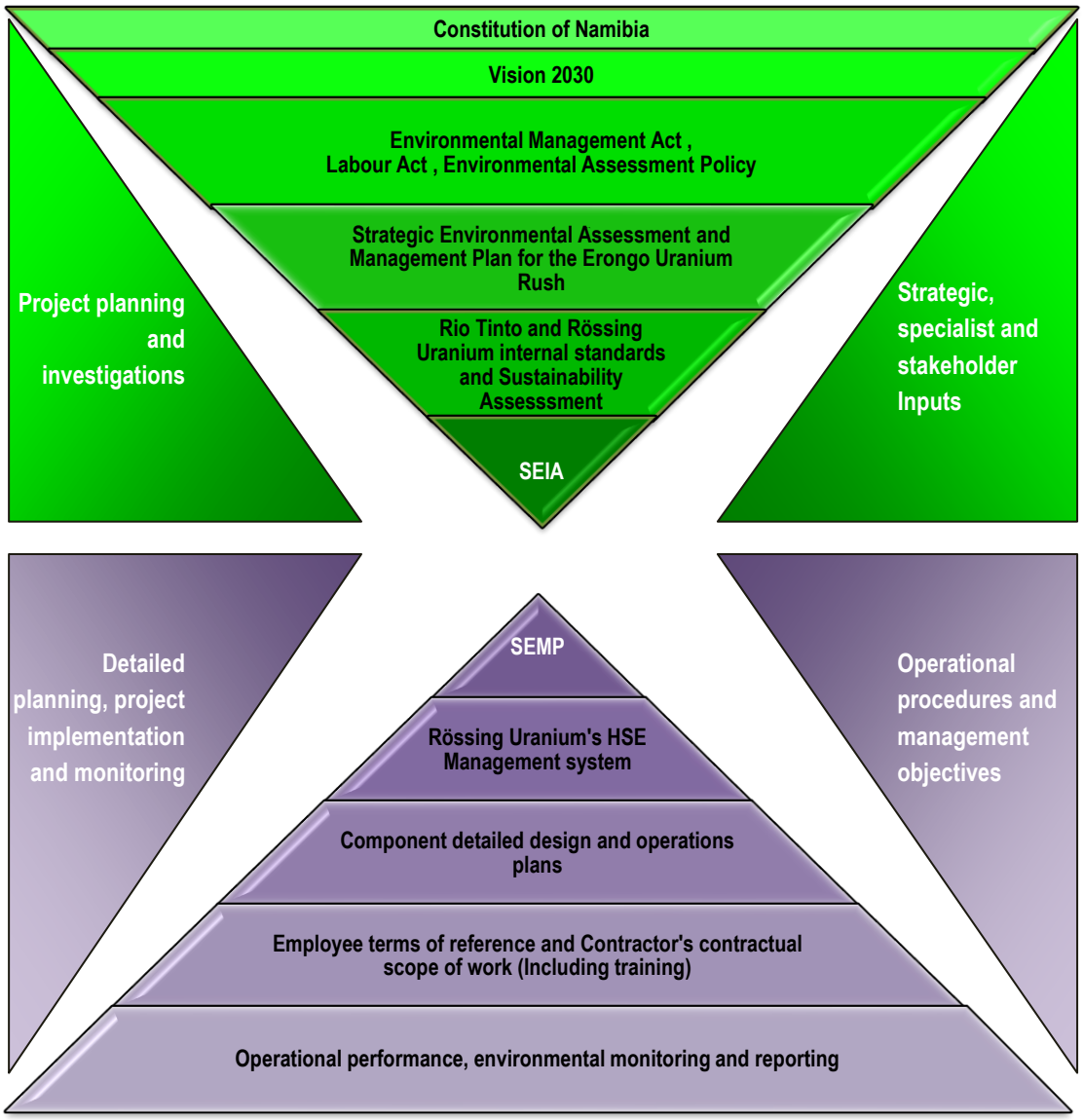

Figure 2: Role of the SEMP in the broader hierarchal strategic context[3]

STATUTORY REQUIREMENTS

In order to protect the social and biophysical environment and ensure that Rössing Uranium's proposed expansion project is undertaken in an responsible manner, there are two significant pieces of

[3] The diagram flows from top to bottom in the shape of an hour glass, showing the various stages of planning, starting with the broadest level planning informants and culminates in the SEIA. This SEMP is the point of departure for the implementation of the said planning process. The triangles to the side indicate the general roles and responsibilities associated with these project phases.

environmental legislation that focus this assessment, *viz*. the Environmental Management Act and the Minerals Act. These are reflected below, followed by reference to other legislation, standards, and conventions that may prove to be relevant.

ENVIRONMENTAL MANAGEMENT ACT

In giving effect to articles 91(c) and 95(l) of the Constitution of Namibia, general principles for sound management of the environment and natural resources in an integrated manner have been formulated. This has resulted in an Environmental Assessment and Management Act being approved by the Namibian Parliament in October 2007. It was gazetted on 27 December 2007 as the Environmental Management Act (No. 7 of 2007), Government Gazette No. 3966[4]. Part 1 of the Environmental Management Act describes the various rights and obligations that pertain to citizens and the Government alike, including an environment that does not pose threats to human health, proper protection of the environment, broadened *locus standi*[5] on the part of individuals and communities, and reasonable access to information regarding the state of the environment.

Part 2 of the Act sets out 13 principles of environmental management, as follows:

- Renewable resources shall be utilised on a sustainable basis for the benefit of current and future generations of Namibians.
- Community involvement in natural resource management and sharing in the benefits arising there from shall be promoted and facilitated.
- Public participation in decision-making affecting the environment shall be promoted.
- Fair and equitable access to natural resources shall be promoted.
- Equitable access to sufficient water of acceptable quality and adequate sanitation shall be promoted and the water needs of ecological systems shall be fulfilled to ensure the sustainability of such systems.
- The precautionary principle and the principle of preventative action shall be applied.
- There shall be prior environmental assessment of projects and proposals which may significantly affect the environment or use of natural resources.
- Sustainable development shall be promoted in land-use planning.
- Namibia's movable and immovable cultural and natural heritage, including its biodiversity, shall be protected and respected for the benefit of current and future generations.
- Generators of waste and polluting substances shall adopt the best practicable environmental option to reduce such generation at source.
- The polluter pays principle shall be applied.
- Reduction, reuse, and recycling of waste shall be promoted.
- There shall be no importation of waste into Namibia.

There is a clear commitment to pursuing these principles of environmental management on the part of Rössing Uranium as the proponent of the expansion project. Further, cognisance has also been taken of the draft Regulations for Strategic Environmental Assessment and Environmental Impact Assessment (2008) as well as the draft Procedures and Guidelines for Environmental Impact Assessment and Environmental Management Plans (2008).

MINING LEGISLATION

A provision of the Minerals Act, specifically Section 48 (2) (b) (i) of the Act, is that *"environmental impact studies"* may be called for by the Minister of Mines and Energy when mineral licences - or their renewal or transfer - are applied for.

[4] Regulations that will provide the enabling legislation for this Act are presently being formulated.

[5] Definition: Latin for 'place to stand', in law, the right to bring an action.

Rössing Uranium is presently operating under a mining licence issued by MME and this will remain unaffected for the current mining operation until it expires in 2019. However, as the responsible sector ministry, MME will in future be requested to consider extending the current mining licence, as well as to consider awarding the necessary mining license for Rössing Uranium's expanded mining activities, once MET:DEA has issued environmental clearances.

OTHER LEGISLATION AND CONVENTIONS

In addition to the Environmental Assessment Policy, the Environmental Management Act, the Minerals Act and Rössing Uranium's internal standards described above, the following additional pieces of existing or pending legislation and conventions may have some bearing on the proposed expansion project:

The socio-economic environment

- Atomic Energy and Radiation Protection Act (2005)
- Communal Land Act (2002)
- Decentralisation Policy (1998)
- Hazardous Substances Ordinance (1956)
- International Atomic Energy Agency Non-proliferation Treaty (1970)
- Labour Act (1992)
- Marriage Equality Act (2002)
- National Code on HIV/AIDS and Employment (1996)
- National Employment Policy (1997)
- National Heritage Act (2004)
- Pending Minerals Safety Bill
- Primary Health Care Policy (1990)
- Public Health Act (1919)
- Regional Councils Act (1992) as amended
- Road Traffic and Transport Act (1999)
- Traditional Authorities Act (1995)
- War Graves and National Monuments Amendment Act (1986)

The biophysical environment

- Air Quality Act (2004)
- Atmospheric Pollution Prevention Act (1965)
- Atmospheric Pollution Prevention Ordinance (1976)
- Convention on Biological Diversity (2000)
- Convention to Combat Desertification (1997)
- Forestry Act (2001)
- Minerals Policy of Namibia (2003)
- Namibian Water Corporation Act (1997)
- Nature Conservation Ordinance (1975) and Nature Conservation Amendment Act (1996)
- Pollution and Waste Management Bill (draft)
- Ramsar Convention (1975)
- Soil Conservation Act (1969)
- United Nations Framework Convention on Climate Change (1992)
- Water Act (1956) and yet to be enabled Water Act (2004)
- Water Resources Management Act (2004)

DESIGN PHASE

The OHSEC Mitigation Table presented hereunder is aimed at facilitating effective OHSEC mitigation implementation during the design phase. To assist with the cross-referencing between OHSEC mitigation prescribed and existing Rössing Uranium HSE management system procedures, a full list of Rössing Uranium HSE management system procedures (as provided by Rössing Uranium) that may be applicable, has been included as Appendix B, although relevant references are provided in the Rössing Uranium HSE Reference column of the OHSEC Mitigation Table. This list and column references are not necessarily exhaustive and could require updating by Rössing Uranium.

Table 1: Design Phase OHSEC Mitigation Measures

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
1	Overarching issues.	Updating and maintaining the Rössing Uranium HSE.	Ensuring that all mitigation measures are incorporated into Rössing Uranium's management system ahead of commencement of construction to avoid any oversights.	Rössing Uranium HSE team to review Design, construction, operational and decommissioning phase SEMPs and update the system and particularly HSE related procedures where possible.	Design phase	All mitigation measures reflected in Rössing Uranium HSE procedures before the onset of expansion activities.	Project recommendation	Revised HSE procedures	HSE Department
2		Biodiversity management and impact mitigation.	Biodiversity conservation and habitat rehabilitation.	Where possible, infrastructure associated with the mining should be sited on lower-priority habitat.	Design phase	Overlay of structures and biotope mapping revealing modifications.	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Modified infrastructure layout	Design team and HSE Department
3				Site roads must by clearly demarcated and stringently enforced. All work areas need to be clearly demarcated and sign-posted. Any movements outside these marked areas will require special permission involving Rössing Uranium's environmental staff.	Design phase	Without unwarranted exceptions	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA65/MSP/001 Monitoring and measurement; JA05/COP/003 Environmental Management System Code of Practice	Physical verification	HSE Department
4				Transplanting trials would be a very valuable exercise for species of high conservation value, enabling Rössing Uranium to demonstrate its commitment to biodiversity conservation. Once the site lay-outs for the extension area are available, affected specimens should be marked and a suitable site selected for a transplant trial. Involvement of the National Botanical Research Institute would be essential to obtain permits and relevant expertise.	Design phase	Have occurred	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA65/MSP/001 Monitoring and measurement; JA05/COP/003 Environmental Management System Code of Practice	Physical verification	HSE Department

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
5				Repeated indicator species sampling will be necessary, particularly in those mapping units that were only accessed along their margins, such as the Khan River mountains and south-east gneiss hills.	Design phase	Sampling program established and documented.	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Relevant documentation	HSE Department
6				Long-term collecting of faunal distribution data, relating to invertebrates, in particular biotopes will shed more light on the habitat requirements of those species that exist in the Rössing area which should be fed into the Rössing Mine closure planning. Particular emphasis to be placed on the Dome area associated with the new Ripios disposal operations. Monitoring of areas should commence before any disturbances to collect further baseline information.	Design phase	Sampling program established and documented.	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Relevant documentation	HSE Department
7				Rehabilitation practices such as preserving and re-spreading topsoil, seeding and replanting with indigenous species will need to be tested and site-specific protocols developed for particular habitats.	Design phase	Documented findings	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Physical verification and monitoring data / documents	HSE Department
8				With regard to biological soil crusts, it will be useful to retain surface soil layers in areas to be newly disturbed. Experiments could reveal whether this assists restoration rehabilitation of disturbed areas, and could provide practical guidelines on how to most effectively maintain biological soil crusts.	Design phase	Testing undertaken and conclusions drawn.	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Physical verification and monitoring data / documents	HSE Department
9				It would be useful to monitor physical quantities of dust and its deposition in areas surrounding the mining areas, and associated features such as biological soil crusts, moisture below stones and rocks, and processes associated with them.	Design phase	On-going dust monitoring programme and data sets.	Project recommendation; E2 – Environment Standard Air Quality Control; JA65/MSP/001 Monitoring and measurement; JA05/COP/003 Environmental Management System Code of Practice; JE/50/PIN/001 Monitoring ambient dust levels using high volume samplers	Monitoring data	HSE Department
10				Undertake and search and rescue / relocate operation in the area ahead of the commencement of construction activities. As much topsoil material from the footprint should be recovered as possible and placed in long term stockpiles for later use in rehabilitation of the area.	Design phase	Rescue all conservation worthy species from areas of disturbance.	Project recommendation; E9 – Environment Standard Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Physical verification	HSE Department

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
11				Circulate biodiversity information with other mining companies, in order to address the cumulative impacts of uranium mining on impacted species with larger ranges, and link Rössing Uranium's biodiversity database and information on biodiversity risks to the Central Namib Strategic Environmental Assessment. Use data from future biodiversity surveys to inform monitoring programme and adaptive management for the expansion project at Rössing Uranium, in order to avoid and minimise impacts on critical habitats and species. Encourage continued taxonomy and analysis of existing invertebrate material and museum collections from previous biodiversity surveys at Rössing Uranium, in order to further update and refine the list of species on conservation concern.	Contract term/*ad hoc*	Recommended	Project requirement	Relevant correspondence with other mines	HSE Department
12		Waste and pollution management.	Prevent environmental pollution and health risks associated with human wastes.	All new facilities equipped with ablution facilities must be connected to the Mine sewerage treatment works or provision for conservancy tanks and haul by truck must be factored into the design. An adequate number of ablution facilities must be provided at or near every place of work to discourage staff abluting in the open.	Design phase	Optimal design	Occupational Health and Safety Act; JE50/OWM/003 Water Recycling and Re-Use; JE50/SOP/003 Sewage Plant Operation;	Final design	Design team
13				Design teams must ensure that the existing sewerage treatment facility has capacity to process the additional waste from the new facilities and the associated increase in staff numbers.	Design phase	Relevant water standards	Occupational Health and Safety Act; JE50/OWM/003 Water Recycling and Re-Use; JE50/SOP/003 Sewage Plant Operation;	Sewerage effluent test results; Optimal plant operation	Design team, HSE Department
14				Effluent from the plant must be tested on a regular basis to ensure effluent complies with the relevant water standards before being released into the receiving environment or complies with the relevant standards where it is to be reused. Reuse is preferable.	Design phase	Relevant water standards	Occupational Health and Safety Act; JE50/OWM/003 Water Recycling and Re-Use; JE50/SOP/003 Sewage Plant Operation;	Sewerage effluent test results	Design team, HSE Department
15			Prevent environmental pollution and health risks associated with general or domestic type wastes.	All waste material to be identified and every component design must cater for the safe and efficient recovery, storage, handling and removal of the typical waste items expected to arise at any given facility. Temporary waste storage facilities should be weather, wind, and scavenger proof to the size of at least small rodents or birds.	Design phase	Provision for handling and removal of all other waste materials	Project recommendation; E7 - Environment Standard Non-Mineral Waste Management;	Final design	Design team
16				Waste removal from all facilities of the mine should be planned to occur at intervals that do not allow for the onset of biological decay of organic materials, which may harbour disease causing pathogens or otherwise serve as an olfactory attractant to biological decomposers or scavengers.	All phases	No accumulation of waste at temporary waste storage areas.	Project recommendation; E7 - Environment Standard Non-Mineral Waste Management;	Physical verification.	HSE Department
17				Inert, non-deleterious waste items, such as building rubble waste be separated from the waste going to landfill to save airspace. This material can be reused as fill, landfill cover or other uses around the mine site. A stockpile should be planned where such materials can be staged until a suitable use arises or disposed of at the tailings facility.	Design phase	General waste does not contain bulk rubble volumes.	Project recommendation; E7 - Environment Standard Non-Mineral Waste Management;	Physical verification.	HSE Department; design team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
18				Temporary waste collection areas at each of the mine facilities should make provision for the sorting of wastes into their various types, all recyclable materials should be stripped from the waste stream and sold or volunteered for recycling purposes, to reduce the volume of waste going to landfill.	Design phase	All general waste is sorted at source	Project recommendation; E7 - Environment Standard Non-Mineral Waste Management;	Physical verification.	HSE Department; design team
19			Responsible social and environmental management of the expanded mine domestic landfill site.	Future extensions of the site haul roads may be required to obtain efficient and safe access to successive lifts. Roads must be planned and designed in a manner that meets the intended purpose but is conservative in terms of additional environmental disturbance.	Design phase	Efficient road network	C3 Vehicles and Driving; JA05/COP/003 Environmental Management System Code of Practice	Physical verification.	HSE Department, Design team and landfill operator.
20				Roads should be at least 5 m wide and made of stone or crushed aggregate to provide safe, all weather access to the facility.	Design phase	Without unwarranted exceptions	JA05/COP/003 Environmental Management System Code of Practice	Physical verification.	HSE Department, Design team and landfill operator.
21				Provision for the undertaking of regular maintenance to minimise damage to refuse vehicles and to prevent incorrect dumping practices being adopted due to accessibility issues.	Design phase	Adequate resources and time available to undertake maintenance work.	Project recommendation.	Physical verification.	HSE Department, Design team and landfill operator.
22				If required, all drainage structures (manholes, inlet/outlet structures, channels etc.) should be designed and set out in a manner that reduces the risk of ingress of solid waste items leading to system clogging. Where appropriate, the system should employ screens and settling ponds to remove any coarse solid fraction from liquid effluents.	Design phase	Adequate drainage structures	Project recommendation.	Physical verification.	HSE Department, Design team and landfill operator.
23				Existing vegetation should be retained as far as possible to help control soil erosion, to regulate catchment outflow, to provide visual screening and to buffer noise emissions from disposal operations.	Design phase	Disruption limited to the zone of physical disturbance only.	E9 - Environment Standard~ Land-Use Stewardship; Biodiversity Monitoring Programme; JA05/COP/003 Environmental Management System Code of Practice	Physical verification.	HSE Department, Design team and landfill operator.
24				Groundwater monitoring points should be established in the valley north and north-east of the landfill. These points should be marked and numbered and displayed on a site drawing for future reference.	Design phase	Without unwarranted exceptions	Project recommendation. JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Physical verification.	HSE Department, Design team and landfill operator.
25				Landfill sites shall be protected against stormwater ingress as far as practical through the use of cut-off drains to redirect water around or away from the site.	Design phase	To be done	Project recommendation. JA05/COP/003~ Environmental Management System Code of Practice	Detailed design	HSE Department, Design team and landfill operator.
26				Closed circulating leachate control systems must be upgraded to contend with the expanded disposal scenario associated with mine expansion project.	Design phase	To be done	Project recommendation.	Detailed design	HSE Department, Design team and landfill operator.
27			Responsible social and environmental management of the mine's planned hazardous waste landfill	Prevent habitat destruction by confining the construction area to the smallest possible space and establishment of a well-defined, all weather access road.	Design phase	Efficient road network	Project recommendation. JA05/COP/003~ Environmental Management System Code of Practice;	Physical verification.	HSE Department, Design team and landfill operator.

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
28			site.	Erect a security fence with a lockable gate around the operating area of the site to prevent unauthorised access, if not established within the existing security area. The fence design should aim to utilise the fence as a screen barrier, reducing the risk of windblown materials escaping from the confinement. Fence posts or uprights should be designed to deal with the resulting loads.	Design phase	Without unwarranted exceptions	Project recommendation.	Physical verification.	HSE Department, Design team and landfill operator.
29				Temporary waste collection areas at each of the mine facilities should make provision for the sorting of the various waste types to aim to minimise the volume of waste destined for the hazardous landfill site, extending landfill life and minimising residual environmental risk.	Design phase	Without unwarranted exceptions	Project recommendation.	Physical verification and detailed design.	HSE, Design team
30				Management actions and facility design should consider mitigations to reduce visual impact of the landfill area, such as windblown litter by reducing and collecting any materials carried from the proposed waste disposal site.	Design phase	Minimal visual intrusion	Project recommendation.	Physical verification and detailed design.	HSE, Design team
31				Management actions should be implemented to mitigate odours generated by waste materials. Operational planning and landfill layout should make provision for daily compaction and covering of waste deposits, so to manage and control vectors of disease and odour.	Design phase	Odour not detected beyond landfill site boundary	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits	Physical verification and detailed design.	HSE, Design team
32				Risk assessment should be conducted to identify and plan or design for any potential occupational health and safety risks associated with the landfill site and waste collection and transference in general.	Design phase	Prior to commencement	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers;	Physical verification of documentation	HSE, Design team
33				All environmental monitoring requirements associated with the expanded landfill or new sites should be planned and in place before operation of the expanded sites commence so that baseline information can be collected for later comparison.	Design phase	Prior to commencement	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; E2 -Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers;	Physical verification and documented environmental monitoring program.	HSE, Design team
34				The hazardous landfill must comply with all relevant statutory requirements and internal best practice relating to design and operation of such facility.	Design phase	Meet statutory and internal standards	Various Rössing Uranium standards and policies, Various Namibian laws relating to the operation of landfill sites.	Physical verification and review of Relevant documentation.	HSE Department

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
35			Reducing social and environmental risks associated with radiological exposure.	Main entry/exit points to the mine must be equipped to identify and contain any highly radioactive materials and vehicles leaving the site to prevent mobilisation of pollutants.	Design phase	Scanning of materials and traffic occurs.	Project recommendation. JK65/PRD/007~ Transport of Contaminated Items	Physical verification and review of Relevant documentation.	HSE Department
36				Introduction of an on-going monitoring and surveillance program to measure doses and assess radiological health risks.	Design phase	Documented monitoring program	Project recommendation. JK65/PRD/010~ Monitoring and identification of contaminated Items JK65/PRD/019~ The Monitoring of Personal Radiation Dose JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard JK65/PRD/021~ Monthly Pregnant Test	Physical verification and review of Relevant documentation.	HSE Department
37				A mine wide dust suppression system must be upgraded to address any additional dust sources associated with the expansion activities giving priority to those with elevated radiological content.	Design phase	Planning and design to make provision for dust suppression.	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers;	Physical verification and review of Relevant documentation.	HSE Department; design team
38			Controlling and monitoring potential groundwater pollution associated with the various mining activities.	The feasibility of using reactive barriers in the tributaries to the Khan should be investigated and implemented where applicable. These reactive barriers should reduce the solute concentrations transported in the groundwater before it enters the Khan as base flow.	Design phase	No pollution incidents, contaminated storm water system visibly maintained	Project recommendation; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Physical verification and review of Relevant documentation.	HSE Department; design team
39		Waste and pollution management.	Effective storm water control at expanded SJ open pit.	The design of the pit, benches and associated haul roads must allow for on-going storm water controls where such be diverted around the pit via cut-off trench to prevent excessive ingress and contamination of any "clean" rain or ground water.	Design phase	No uncontrolled storm water runoff. All major natural and artificial waterways are diverted away from open pit, or dammed. Keep clean water clean.	Project recommendation; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Final design	Design team
40		Noise and Vibration management.	To assess the changes in overall noise levels generated by mine expansion, allowing for the on-going identification and mitigation of excessive noise and vibration emissions and/ or sensitive receptors.	Undertake noise monitoring programme in accordance with specialist's detailed monitoring programme and monitoring requirements. The specific noise monitoring points have been defined and co-ordinates provided.	Design phase		SANS Code of Practice: SANS 10103:2008 & Noise Control Regulations (Section 25 of the Environmental Conservation Act 73 of 1989.		
41				Commence with noise monitoring as soon as possible, and preconstruction phase, to ensure that adequate baseline information is captured.	Design phase	Commence with monitoring at least one month prior to commencement	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement	Data	HSE department

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42				The design of all heavy exposed plant should consider acoustic dampening or mitigation measures. Conveyor systems, ore processing equipment and so on should be designed to minimise the production of excessive noise and be planned with nearby receptors, including other work areas of the mine, in mind. Where acoustic dampening at source is not possible or insufficient, acoustic dampening of receptor areas should be considered.	Design phase	All noise within acceptable tolerances at various component site boundaries.	Project recommendation; E6 -Environment Standard - Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	Noise monitoring data, physical verification of acoustic dampening.	Design team; HSE department
43				Where possible, material berm should be placed so as to protect site boundaries from noise of individual operations. If a stockpile is constructed, it should be at a position and of such a height as to effectively act as a barrier to site noise at any sensitive area, if the line of sight calculations show this to be practicable. In particular, the erection of suitable earth berms around the permanent machinery can significantly reduce the noise by up to 15 dB.	Design phase	Stockpile location and position serves to dampen noise to nearest receptors.	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; EMSMPS002 Rev 1 – Mine wide JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	Physical verification, mine layout plan.	Design team; HSE department
44				A buffer zone of approximately 1.5 km from the boundary would ensure compliance with the 35 dBA rural guideline outside the mine's north-eastern boundary. Alternatively, consideration should be given to the restriction of the night-time operations at that location or the construction of an earth berm. The alignment of the conveyor belt to the Ripios disposal area should be kept as far as possible from the north-eastern boundary. It should be noted that this buffer zone can be established on either the inside or outside of the site boundary.	Design phase	1.5 km no or limited activity zone maintained.	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; EMSMPS002 Rev 1 – Mine wide JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	Physical verification, mine layout plan.	Design team; HSE department
45		Visual impacts associated with mine expansion.	Reduce the night-time visual impact of the mine to nearby receptors.	Consideration should be afforded to the impact of lighting and the greater zone of visual influence at night. All lighting should be designed as low-level purpose designed lighting. Spillage or floodlighting of areas shall be avoided as far as possible.	Design phase	All lighting designed with visual impact in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
46				Security and perimeter lighting must also be shielded and excessively tall light poles are to be avoided.	Design phase	All lighting designed with visual impact in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
47				Except for aircraft warning lights, no naked light sources are to be directly visible from a distance. Aircraft warning lights are to be installed according to the relevant authority requirements.	Design phase	All lighting designed with visual impact in mind.	Project recommendation. C7 Aviation Safety	Facility detailed design and physical verification	Design team; HSE department
48				Up lighting of tall structures or topographical features must not be considered when planning lighting and avoided as far possible.	Design phase	All lighting designed with visual impact in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
49				Lighting reduction design and technologies should be assessed during detailed design.	Design phase	All lighting designed with visual impact in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department

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50			Reduce daytime visual impacts of the mine to nearby receptors.	All plant and equipment that is potentially visible from surrounding areas should be painted in a colour that assists with their visual dissipation from such distances. This will be dictated largely by the backdrop natural or dominant artificial landscape colours of that particular area. Generally, natural desert colours, as close as possible to a medium grey-brown, should be utilised for all structures, unless safety requirements dictate otherwise.	Design phase	All plant or activities are planned or designed with potential visual impacts in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
51				Road and component design and layout should not consider routes or positions on high points or slope faces that may be visible from distances, or mitigate these wherever possible through repositioning or screening measures.	Design phase	All plant or activities are planned or designed with potential visual impacts in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
52				Within the limits of engineering feasibility structures should be as low as possible to the ground.	Design phase	All plant or activities are planned or designed with potential visual impacts in mind.	Project recommendation.	Facility detailed design and physical verification	Design team; HSE department
53		Socio economic.	Ensure the sustainability of Arandis.	Phase out mine property ownership and rental by the mine of property in Arandis. Limit the number of houses made available in Arandis	Design phase	Reduce property ownership in Arandis year on year.	Project recommendation.	Relevant records	HSE team and general mine management. Rössing Foundation
54				Continuation of the Corporate Social Investment in Arandis (limited to existing support programs) until infrastructure for service delivery is in a satisfactory condition.	Design phase	Program continuation and expansion	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
55				Continued assistance for capacity building in the Town Council of Arandis.	Design phase	on-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
56				Continued support of service providers in town and support of initiatives to diversify the economy and decrease dependence on the mineral sector.	Design phase	On-going, formalised liaisons and collaborations with Service providers.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
57				Ensure development initiatives in Arandis have sustainability before closure.	Design phase	on-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
58				Develop monitoring programmes with Key Performance Indicators to monitor progress towards sustainability.	Design phase	On-going, formalised liaisons and collaborations with Town council and documented monitoring program	Project recommendation. JA65/MSP/001~ Monitoring and Measurement	Relevant records	HSE team and general mine management; Rössing Foundation

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59				Inform Arandis community in advance when downscaling and/or closure becomes eminent.	Design phase	on-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
60				Promote post-closure retention of skills in Arandis by aligning training and skills development with local economic development.	Design phase	On-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
61			Planning housing and accommodation requirements to limit destabilisation of property markets in nearby towns.	Advise local authorities of the housing requirements for the mine expansion project.	Design phase	On-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
62				Consult with other mining companies regarding the avoidance of the increase in property prices.	Design phase	On-going, formalised liaisons and collaborations with other mines.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
63				Design housing projects to maximise use after mining closure	Design phase	On-going, formalised liaisons and collaborations with Town council.	Project recommendation.	Relevant records, designs	HSE team and general mine management; Rössing Foundation
64				Design of housing projects should avoid the establishment of mining enclaves within communities.	Design phase	Mining employees are dispersed throughout resident communities.	Project recommendation.	Relevant records, physical verification	HSE team and general mine management; Rössing Foundation
65				Avoid the involvement of estate agents and property developers in order to keep house prices low.	Design phase	No estate agents / property developed involved.	Project recommendation.	Verification of property acquisition documentation.	HSE team and general mine management; Rössing Foundation
66				Make the housing policy public to manage expectations and manage development in anticipation of the mine expansion.	Design phase	On-going, formalised liaisons and collaborations with Swakopmund Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation
67			Alleviate the impact of the lack of accommodation for the mine's increasing workforce.	Consultation with local authorities in Walvis Bay, Swakopmund, and Arandis to ascertain what accommodation is available for rental.	Design phase	On-going, formalised liaisons and collaborations with Arandis, Walvis Bay and Swakopmund Town councils.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
68				Consider providing housing in the Progressive Development Area in Swakopmund.	Design phase	On-going, formalised liaisons and collaborations with Swakopmund Town council.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation

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69				Consider the possible use of temporary accommodation as a last resort, or interim measure.	Design phase	No temporary housing	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
70			Support the growth of local and regional economies.	Develop mechanisms to improve local procurement e.g., assessing maximum local business opportunities for each contract.	Design phase	Increase local procurement.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
71				Assist local service providers lacking in capacity to acquire the necessary capacity.	Design phase	Increase local procurement.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
72				Investigate opportunities and support mechanisms to facilitate the participation of women in the local economy.	Design phase	Increase local procurement from women owned enterprises.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
73				Supply start-up funding to SMEs to provide goods and services to the mine. Such initiatives should be channelled through the Rössing Foundation.	Design phase	Increase local procurement.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
74				Adopt procurement strategies that promote small, Namibian companies and encourage diversification and development of these companies away from dependence on Rössing Uranium.	Design phase	Increase local procurement.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
75				Advise service providers in advance of downscaling or closure.	Closure phase	Without unwarranted exceptions	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.
76			Manage impacts of inward migration of work seekers to Erongo Region as a result of perceived job opportunities offered by the mine.	Inward migration cannot be avoided, but can possibly be managed by: Preventing backyard shack dwelling, informal housing and the health and social problems by promoting home ownership and ensuring that the workforce lives in formal housing.	Design phase	Reduce residential densities as compared with historical values. Establish a monitoring program.	Project recommendation.	Relevant monitoring records	HSE team and general mine management; Rössing Foundation.
77				Support Arandis Town Council in the effort to upgrade the state health services in Arandis to cope with the influx of job hunters.	Design phase	On-going, formalised liaisons and collaborations with Arandis Town council. Upgraded health services.	Project recommendation.	Relevant records and physical verification.	HSE team and general mine management; Rössing Foundation.
78				Extend workforce health programmes to the entire mine's communities of interest.	Design phase	Without unwarranted exceptions.	Project recommendation.	Relevant records	HSE team and general mine management; Rössing Foundation.

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79				Develop programmes addressing social ills (e.g., alcohol abuse and violence against woman and children) and extend to all Rössing Uranium's communities of interest through the Peer Educator Programme.	Design phase	Without unwarranted exceptions.	Project recommendation.	Relevant records and program documentation.	HSE team and general mine management; Rössing Foundation.
80			Alleviate the impact of additional learners in schools in Swakopmund and Walvis Bay to accommodate the schooling requirements of the mine's workforce.	Participate in negotiations with the Ministry of Education for the building of additional schools in areas where its workforce will reside.	Design phase	Support the upgrading of schools in affected communities.	Project recommendation.	Relevant records.	HSE team and general mine management; Rössing Foundation.
81				Consider the building of extra classrooms at schools where the shortage is most critical.	Design phase	Upgrade schools in affected communities.	Project recommendation.	Relevant records.	HSE team and general mine management; Rössing Foundation.
82				Negotiate with the Ministry of Education to secure placement for the children of Rössing Uranium's employees at schools.	Design phase	No exceptions	Project recommendation.	Relevant monitoring records.	HSE team and general mine management; Rössing Foundation.
83				Consider building a new school, in partnership with other mines.	Design phase	Discussion held on formal basis	Project recommendation.	Meeting minutes and or physical actions.	HSE team and general mine management; Rössing Foundation.
84			Ensure safety of mine personnel and other road users due to transport of larger workforce to mine.	Introduce a code of conduct to be adopted by service providers which will address issues such as speed, vehicle maintenance, loading, driver proficiency, alcohol abuse, and passenger safety.	Design phase	Documented code of conduct. Very few or no accidents arising from negligent driving.	C3 - Vehicles and Driving; Project recommendation; Occupational Health and Safety Act	Documented code of conduct	HSE team and general mine management; Rössing Foundation.
85				Undertake a survey to establish more accurately the number of vehicles that use the road network to go to the mine regularly in order to establish if further traffic management plans are required.	Design phase	Undertake survey annually	C3 - Vehicles and Driving; Project recommendation; Occupational Health and Safety Act	Survey results	HSE team and general mine management; Rössing Foundation.
86				Lobby for the upgrading of the C34 with other uranium companies.	Design phase	Formalised action plan and records of liaison	Project recommendation	Records of liaisons with Government.	HSE team and general mine management; Rössing Foundation.
87			Contribute towards the sustainable supply of water.	Focus lobbying to speed up the construction of the NamWater desalination plant.	Design phase	Desalination plant construction is accelerated.	Project recommendation	Records of liaisons with Government.	HSE team and general mine management; Rössing Foundation.
88				Undertake intensified consultation with Erongo Desalination Company to gain priority access to their excess desalinated water if this becomes available.	Design phase	Formalised action plan and records of liaison	Project recommendation	Formalised expression of interest and other records of liaisons with Areva Resources.	HSE team and general mine management; Rössing Foundation.

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89				Prepare a response to the public's possible reaction to Rössing Uranium's additional water requirements.	Design phase	Response researched and prepared before commencement	Project recommendation	Documented response	HSE team and general mine management; Rössing Foundation.
90			Reduce the volume of fugitive dust emanating from the mine	Identify and rehabilitate existing roads or services areas that will no longer be utilised as part of the expanded mine project.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation;	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer
91				Update fallout dust monitoring programme to cater mine expansion components. Ensure that samplers are acquired and installed prior to the commencement of any activities (including construction) associated with the expansion project to ensure that a baseline can be recorded.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation; JA65/MSP/001~ Monitoring and Measurement JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination JK65/PRD/019~ The Monitoring of Personal Radiation Dose JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard JK65/PRD/005~ Removal of Equipment & Material From Site JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/010~ Monitoring and identification of contaminated Items Occupational Health and Safety Act.	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer
92	Expansion of the SJ Open Pit.	Particulate emissions.	Control dust emissions from gravel roads and continue dust fallout monitoring.	Reduce road surface area to only the minimum required. Install only the minimum number of roads of the minimum length and width.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation;	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer
93				Identify and rehabilitate existing roads or service areas that will no longer be utilised as part of the expanded mine project.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation;	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer

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94				Update fallout dust monitoring programme to cater mine expansion components. Ensure that samplers are acquired and installed prior to the commencement of any activities (including construction) associated with the expansion project to ensure that a baseline can be recorded.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer
95		Health and safety of mine workers.	Safe transportation of ore on mine roads.	Road design to include the road user risk reduction system measures, as per the Rössing Uranium standard practice.	Design phase	Rössing Uranium standards	C3 - Vehicles and Driving; Project recommendation; Occupational Health and Safety Act	Final design	Design team
96			Ensure on-going mine worker safety.	Existing Rössing Uranium health and safety measures and process are to be applied to all expansion activities. All designs shall take cognisance of the relevant statutory and in-house requirements associated with health and safety aspects. All facilities shall consider the health and safety risks associated with such facility and cater for whatever mitigation measures are deemed appropriate, by it emergency and or automated stops, lockout systems and barricades, fire protection systems, and so forth.	Design phase	All facilities designed with occupational health and safety requirements in place.	Occupational Health and Safety Act; B2 - OH Standards - Hearing conservation; JH50/COP/017~ Barricading and Demarcation; JH50/COP/031~ Personal Protective Equipment E6 - Environment Standard~ Noise and Vibration Control	Final design	Design team, HSE Department
97		Noise and Vibration.	Ensuring that mining blasting impacts are thoroughly monitored.	Plan the blast noise and vibration monitoring programmes. Source the required monitoring equipment and establish monitoring stations. Set up a ground vibration monitoring programme with at least three monitors around the mine, i.e. the Arandis airport, Arandis town and across the Khan river.	Design phase	Occupational health and safety standards and Rössing Uranium standards	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	Completed monitoring programme	Design team
98		Public health and safety.	Minimise risks associated with radiological exposure.	Dust suppression and control systems in the pit, surrounding roads and during blasting operations must be continually improved through intelligent design and planning. Dust suppression must be expanded to meet the proposed pit expansions.	Design phase	Radiological monitoring shows levels are within tolerances.	JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	Monitoring results	HSE Department
99				Ensure that materials and vehicles leaving the mine are monitored for radiological contamination and are withheld if exceeding standards.	Design phase	Routine inspections undertaken.	JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control		HSE Department
100			Restrict access.	Access control at all entry points to the mine must be maintained or addressed where necessary. No visitor should have unsupervised access or right of mobility on the mine premises without the necessary training.	Design phase	Undertake a biennial security integrity inspection and evaluation	Project recommendation	Physical verification	HSE Department; design team
101			Reduce risks associated with traffic accidents on public roadways.	Planning must consider impacts of traffic type and volumes triggered by the expanded mine activities and must seek to reduce the risk to normal road users and potential damages to the roads themselves.	Design phase	No accidents arising from negligence on behalf of Rössing personnel.	C3 - Vehicles and Driving; Project recommendation; Occupational Health and Safety Act	Physical verification.	HSE Department

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102		Resource consumption.	Reduce the overall consumption of resources by the mine.	Whilst this occurs naturally from the economics feasibility perspective, these considerations must be coupled with various social and environmental requirements associated with such resources, where the most economically appropriate approach to resource consumption reduction may not resonate with the appropriate social and environmental objectives.	Design phase	Continual improvement	Project recommendation JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers JE/50/PIN/003~ Dust Deposition Sampling	Annual monitoring records. Design features / specifications.	HSE Department; design team
103		Visual impact.	To minimise the visual impact of the expanded SJ open pit.	Implement and continue to investigate improved dust suppression measures associated with the open pit blasting operations.	Design phase	Continual improvement	Project recommendation JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers JE/50/PIN/003~ Dust Deposition Sampling	Monitoring results, design features.	HSE Department
104	Expansion of the Waste Rock Dumps.	Particulates production and mobilisation.	Control dust emissions from gravel roads, dumping operations and continue dust fallout monitoring.	Reduce road surface area to only the minimum required. Install only the minimum number of roads of the minimum length and width.	Design phase	Optimal in the joint opinion of the technical and environmental staff responsible for the area in question	Project recommendation;	Final design and design motivations. Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team, Safety officer and H&E officer
105				Consideration should be afforded to the waste rock development pattern where waste rock dumping avoids excessively steep and long fall height down slopes for materials during placing where possible.	Design phase	Documented plan	Project recommendation; E8 - Environment Standard - Mineral Waste Management	Optimised waste rock dump plan.	Design team, HSE Department
106		Health and safety of mine workers.	Minimise health and safety risks to workers.	All roads and road safety measures must be planned and implemented. Consideration of blind rises, turning areas, concealed intersections must be considered during the road network planning phase to reduce the risk of traffic accidents.	Design phase	Documented plan	JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	physical verification and layout of mine control systems	Design team, HSE Department
107				Only authorised persons wearing the appropriate high visibility clothing that are trained and familiar with the dumping operations should be afforded authorisation to enter or depart vehicles on foot in the waste rock dump areas.	Design phase	Control system in place	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	No transgressions	Design team, HSE Department
108				Provision should be made to demarcate active dump faces to prevent any pedestrian unwittingly approaching the toe of such slope / bench.	Design phase	Without unwarranted exceptions	Project recommendation; Occupational Health and Safety Act; JH50/COP/017~ Barricading and Demarcation JH50/COP/025~ Safety Training Courses	Physical verification	HSE Department
109		Noise and Vibration.	To reduce the generation of excessive noise and vibration.	Fall heights and travel distances of dumped materials should be limited as far as possible through waste rock dump layout and planning.	Design phase	Reduced fall heights through rock dump operation plan (reduced slop angles, bench heights)	Project recommendation	Physical verification, waste rock dump plan of operations	HSE Department

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110				No plant (ore processing) generating significant noise should be positioned of the top of the waste rock dumps, even temporarily, without consideration for appropriate direction acoustic damping measures.	Operational phase	Without unwarranted exceptions	Project recommendation; E6 - Environment Standard - Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement Occupation Health and safety Act	Physical verification, waste rock dump plan of operations	HSE Department
111		Public safety.	Reduce the safety risk to the public associated with the waste rock dumps.	Strict access control to these areas must be observed. A system of sighting, reporting and responding to security breaches from the Khan River and Namib Naukluft Park should be developed using the various plant operators. The mine should erect numerous appropriate warning signage to warn hikers or 4x4 day trippers of the danger, and such signs should provide emergency contact details.	Operational phase	Without unwarranted exceptions	Project recommendation	Physical verification, records	HSE Department
112		Visual impact.	Minimise the long-term visual impact associated with the waste rock dumps and assist with their incorporation into the natural landscapes.	The dumping strategy is reviewed and alternative sites are utilised to ensure further visual intrusion is not generated. It is recommended that dumping is moved to the smaller waste rock dumps to the east of the open pit, which have greater capacity to absorb the landscape modification due to the areas highly modified landscape character. It must be noted that a detailed design is required for the area where dumping has taken place in close proximity to the Khan River.	Design phase	Take under formal consideration	Project recommendation	Formal records of discussion, liaisons.	Design team, HSE Department
113				To create a more organic mountainous landscape, it is recommended that the lower benches are large, with smaller, more fragmented benches at the top, with the standard bench height utilised in the central elevations.	Design phase	Achieve natural appearance of waste rock dumps	Project recommendation	Dump plan, physical verification	Design team, HSE Department
114		Waste and pollution management.	Water quality monitoring programme should be planned and expanded to meet the envisaged mine closure waste rock dump scenario.	Where required monitoring boreholes downstream of the waste rock dumps should be drilled and measurements commenced as soon as possible to develop baseline readings.	Design phase	Monitoring programme established	Project recommendation; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Final design and operational verification	Design team
115			Seepage water management measures to avoid or minimise pollution impacts on downstream water resources.	Lysimeter systems should be constructed at the base of specified waste rock dumps to provide direct evidence of flow rates and seepage composition (based on detailed chemical analysis).	Design phase	No downstream pollution	Project recommendation; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Monitoring data, water pollution prevention design	Design team, HSE Department
116			Erosion and sediment control measures (such as evaporation paddocks) to intercept runoff.	Design of final pit geometry and constructed cut-off drains or berms should encourage runoff from the top of the dump to flow towards the pit.	Design phase	All water from waste disposal sites, directed toward pit	Project recommendation; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management	Physical verification road and stormwater control layout.	Design team, HSE Department

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117	New Ore crushing plant.	Particulates production and mobilisation.	Reduce the levels of fugitive dust and health and safety concerns related to radon and respirable silica containing dust.	All access and haul roads should be planned and designed to minimise the total road surface area.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JH50/COP/031~ Personal Protective Equipment E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement JE/50/PIN/003~ Dust Deposition Sampling Occupational Health and Safety Act	Final designs and physical verification	Design and Project management Team
118				All transfer points on the conveyor systems, should be equipped with suitable dust extraction or suitable dust suppression systems. All filter bags at the various bag-houses should receive regular maintenance in order to reduce dust emissions form the facility.	Design phase	Optimised design.	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JH50/COP/031~ Personal Protective Equipment E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement JE/50/PIN/003~ Dust Deposition Sampling Occupational Health and Safety Act	Final design and design motivations	Design and Project Management Team
119				Fall heights from earthmoving equipment and transfer points on conveyors should be considered in designs and planning and kept to the minimum.	Design phase	Optimised design	Project recommendation	Final design and design motivations	Design and Project Management Team
120				Effective dust Extraction system - waterborne and enclosed system	Design phase	Optimised design	Project recommendation	Final design and design motivations	Design and Project Management Team
121			Minimising fugitive dust emissions.	Fugitive dust may be effectively controlled by means of filters within bag-houses at identified emission points within the plant.	Design phase	Rössing Uranium OHSEC protocols and South African Air Quality Act and SANS Standards, as adopted by Namibia	JE/50/PIN/003~ Dust Deposition Sampling JE/50/PIN/002~ Multi-Vertical Sampler procedure JE/50/PIN/004~ Downloading data from the Osiris Dust Monitor at the crushing circuit	Final design	Design team

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122		Health and safety of mine workers.	Ensure a safe work environment for employees and that exposure to occupational risks are minimised.	Where noise levels pose a health and safety risk, demarcated noise zones will be instituted and affected staff should wear the appropriate hearing protection equipment.	Design phase	Staff working within designated areas of the plant are wearing the appropriate hearing protection devices	Occupational Health and Safety Act; B2 - OH Standards - Hearing conservation; JH50/COP/017~ Barricading and Demarcation JH50/COP/031~ Personal Protective Equipment JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey	Physical verification, routine OHSEC monitoring and reporting.	Plant Manager, H&E and Safety Officers
123				All equipment, plant, and facilities should be fitted with appropriate safety demarcations, warning and information signage to ensure that an employee can avoid foreseeable risks and navigate to safety in the event of an emergency. All moving parts equipment shall be fitted with the required barricading, lockout measures and emergency stop trip switches.	Design phase	All safety and warning signage to be in place before plant commissioning	Project recommendation; Occupational Health and Safety Act; JH50/COP/014~ Aisles, Storage & Demarcation JH50/COP/016~ Colour Coding JH50/COP/017~ Barricading and Demarcation JH50/COP/025~ Safety Training Courses JH50/COP/030~ Working at Heights	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
124				Only trained personnel working at the crushing operations should be granted access to the ore crushing plant, all other mine employee access to this area should be restricted. Barricade fencing and access control mechanisms should therefore be considered in the detail design.	Design phase	Without unwarranted exceptions	Occupational Health and Safety Act; JH50/COP/031~ Personal Protective Equipment JH50/COP/017~ Barricading and Demarcation JH50/COP/026~ Permit to Work and Clearances System	Physical verification, record of transgressions	Plant Manager, H&E and Safety Officers
125			Protection of employees and staff against exposure to excessive dust and noise and vibration levels.	Design of plant process and facilities to minimise airborne dust emissions and noise levels, although employees and staff at the plant will be required to wear hearing and breathing protection. A dust extraction system will be installed to control dust at all transfer points. Noise attenuation to be specified wherever feasible.	Design phase	Occupational health & safety standards	Project recommendation	Final design and operational verification of dust and noise levels	Design team
126				Use of any impact tools for maintenance purposes Vibration limits for new equipment/instruments procured,	Design phase	Occupational health & safety standards	Project recommendation	Final design and operational verification of dust and noise levels	Design team

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127			Minimising radiological hazard to employees.	Ensure that occupational radiological hazard is maintained below the ICRP recommended levels.	Design phase	ICRP Guidelines	B10 -OH Standards~ occupational exposure limits B1 - OH Standards - Particulate and gas or vapour exposures; B5 - OH Standards – Radiation; E8 - Environment Standard - Mineral Waste Management; JA65/MSP/001~ Monitoring and Measurement JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination JK65/PRD/016~ Area Survey for External Gamma Radiation JK65/PRD/019~ The Monitoring of Personal Radiation Dose JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard JK65/PRD/005~ Removal of Equipment & Material From Site JK60/PRD/009~ Uranium Oxide Emergency Spillage Procedure JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items JK50/COP/006~ Code of Practice for protection against ionising radiation Occupational Health and Safety Act.	Final design and operational verification that it is below ICRP Guidelines	Design team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
128		Noise and Vibration.	Minimise fugitive noise.	All potentially excessive sources of noise from the plant or operational areas should be considered in the layout and design of the facilities. Where appropriate, such areas or equipment should be designed and/or fitted with suitable noise dampening devices or enclosures.	Design phase	All excessively noisy plant and equipment have been designed with appropriate noise buffering	Project recommendation; Occupational Health and Safety Act; JK65/COP/011~ Human Vibration Protection JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey B3 - OH Standards~ Manual handling and vibration JH50/COP/017~ Barricading and Demarcation JH50/COP/031~ Personal Protective Equipment JH50/COP/026~ Permit to Work and Clearances System B2 - OH Standards - Hearing conservation; E6 - Environment Standard - Noise and Vibration Control	Final design and design motivations. Noise monitoring data sheets. Physical verification, routine OHSEC monitoring and reporting	Design and Project Management Team
129			Limit the noise generated by the ore crusher operations.	All potentially noisy operations to be identified and noise attenuation measures to be allowed for in the design, such as designing blast nozzles for low noise generation.	Design phase	Facility operation generates as little noise as possible.	JK65/PRC/004~ Personal Noise Survey JK65/PRC/003~ Area Noise Survey Project recommendation; Occupational Health and Safety Act; E6 - Environment Standard - Noise and Vibration Control; B2 - OH Standards - Hearing conservation; B10 - OH Standards - Occupational exposure limits.	Final design and noise monitoring sheets	Design team, H&E officer and safety officer
130		Public safety.	Reduce the safety risk to the public associated with the crushers.	Strict access control and no unsupervised visitors should be afforded access to this plant.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
131		Resource consumption and optimisation.	Minimise water use, measure water abstraction and implement reticulation systems.	Provision for water use measurement and water (dust suppression) recycling in the plant design.	Design phase	Year on year reduction in water consumption per production unit	Project recommendation	Final design	Design team
132			Minimise Electrical power consumption.	Design must consider electrical efficiencies, not only at the larger scale but across the board, including lighting, small mechanicals and appliances.	Design phase	Year on year reduction in energy consumption per production unit	Project recommendation	Final design	Design team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
133		Visual impact.	Minimising night time visual impact associated with the lighting of the facility.	Flood lighting of extensive outdoor areas and up-lighting of vertical structures or topographical forms should not be permitted.	Design phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
134				Lighting in and around the facility should adopt the principle of being downward facing and task-specific, with limited spillage into the surrounding areas.	Design phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation; Occupational Health and Safety Act	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
135				Lighting of the facility should be kept to the efficient minimum.	Design phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation; Occupational Health and Safety Act	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
136		Waste and pollution management.	Control of potentially contaminated storm, wash water, and industrial effluent from the ore crusher plant.	Accumulation of runoff from the various dust suppression spraying points which may have minor radioactive dust and hydrocarbon contamination should be directed to a collection sump via the drainage network from where it should be pumped to the primary crusher spillage collection system for treatment and reuse.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	Final design and design motivations. Physical verification	Design and Project Management Team
137				Contaminated water is to be pumped to the existing primary crusher spillage collection system for treatment and reuse.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	Final design and design motivations. Physical verification	Design and Project Management Team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
138				Storm water collecting within the facility that may have been contaminated with radioactive fines, hydrocarbons and other potentially hazardous chemicals, should be collected in an appropriately designed drainage network and collection sump.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control E10 -Environment Standard - Water Use and Quality Control	Final design and design motivations. Physical verification	Design and Project Management Team
139	Expanded tailings facility.	Particulates production and mobilisation.	Minimise the generation and mobilisation of particulates.	Rössing Uranium to employ existing methods of reducing dust mobilisation off tailings disposal area.	Design phase	Maintain dust levels within specified tolerances	Project recommendation; B1 –B1 OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JH50/COP/031~ Personal Protective Equipment E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement JK65/PRC/010~ Particulate Monitoring Occupational Health and Safety Act	Monitoring data, design measures	Design team, HSE Department
140		Health and safety of mine workers.	Minimise health and safety risks to workers.	All roads and road safety measures must be planned and implemented. Consideration of blind rises, turning areas, concealed intersections must be considered during the road network planning phase to reduce the risk of traffic accidents.	Design phase	All safety and warning signage to be in place before road commissioning	C3 - Vehicles and Driving; Project recommendation; Occupational Health and Safety Act	Physical verification	Design team, HSE Department

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141		Noise and Vibration.	Reduce the generation and transmittance of excess noise.	Existing Rössing Uranium protocols to remain in effect.	Design phase	All excessively noisy plant and equipment have been designed with appropriate noise buffering	Project recommendation; Occupational Health and Safety Act; JK65/COP/011~ Human Vibration Protection JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey JH50/COP/017~ Barricading and Demarcation JH50/COP/031~ Personal Protective Equipment JH50/COP/026~ Permit to Work and Clearances System B2 - OH Standards - Hearing conservation; E6 - Environment Standard - Noise and Vibration Control	Final design and design motivations. Noise monitoring data sheets. Physical verification, routine OHSEC monitoring and reporting	Design and Project Management Team
142		Public safety.	Reduce the safety risk to the public associated with the tailings facility.	Strict access control to these areas must be observed.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
143		Resource consumption and optimisation.	Optimise waste disposal activities and minimise all forms of resource consumption.	Existing Rössing Uranium protocols to remain in effect.	Design phase	Without unwarranted exceptions	Project recommendation	Documentation	Design team, HSE Department
144		Visual impact.	Minimise the visual intrusion caused by the waste disposal activities.	Mitigation would be required to round off the edges of the tailings storage facility to result in a more natural shape.	Design phase	Achieve natural appearance of Tailings	Project recommendation	Physical verification	Design team, HSE Department
145		Waste and pollution management.	Minimise the volume of waste and ensure responsible handling and disposal thereof.	Install production boreholes on the tailings dam. To allow for the collected and reuse of this water resource and reduce ground water contamination risk.	Design phase	Water quality management records	Project recommendation	Physical verification	Design team, HSE Department
146	New heap leach facility.	Particulates production and mobilisation.	Limiting the amount of fugitive dust associated with traffic to and from the heap leach plant.	Road network area associated with the heap leach plant and associated areas must be kept to an efficient minimum, including new and temporary roads built during the operational phase. Consideration to hard surfacing of certain high traffic roads should be considered.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	Project recommendation	Final road design with associated design motivation	Design team
147			Dust monitoring programme to be developed.	Dust monitoring programme to be developed in line with existing dust monitoring programme at Rössing Uranium.	Design phase	Dust fallout recorded by six buckets following ASTM D1739 standard method using conical cylinder, half filled with de-ionised water, and left for 30 days.	Project recommendation	Final design and monitoring programme	Design team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
148		Health and safety of mine workers.	Ensure a safe work environment for employees and that exposure to occupational risks are minimised.	Any enclosed working areas should have sufficient ventilation and lighting to ensure that workers can undertake their task in safety.	Design phase	All operations are to be undertaken in adequately lit and ventilated environment	Occupational Health and Safety Act; B1 - OH Standards - Particulate and gas or vapour exposures; B6 - OH Standards - Thermal stress; B8 - OH Standards - Legionnaires disease; B10 - OH Standards - Occupational exposure limits; C5 - Confined Spaces;	Final design and physical verification, routine OHSEC monitoring and reporting during operational phase.	H&E, Safety Officer and Plant Manager
149			Ensure adequate emergency procedures are in place to reduce the magnitude of the impacts in the event of an emergency.	An evacuation plan should be developed and presented to the staff at each work station that will clearly identify the protocols to be followed in the event of an emergency, the location and functioning of the emergency escape routes and doors, and the emergency assembly areas.	Design phase	Emergency plans and evacuation plans are complete before commissioning of the facility. Facility is constructed with the fire fighting equipment, escape route, emergency assembly areas, etc.	Occupational Health and Safety Act; JA05/POL/001~ HSE Policy Strategies JH50/COP/025~ Safety Training Courses JH50/COP/016~ Colour Coding JH50/COP/017~ Barricading and Demarcation	Physical verification, routine OHSEC monitoring and reporting. Emergency evacuations drills to be held regularly	H&E, Safety Officer and Plant Manager
150			Avoid health risk to employees and staff due to exposure to sulphuric acid and pregnant solution.	Measure to prevent staff walking downwind of the heap leaching plant should be considered. All channels, pipes sumps used for the sulphuric acid and pregnant solution transfer must be barricaded.	Design phase	South African Air Quality Act and SANS Standards.	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; E2 - Environment Standard - Air Quality Control	Final design, and operational air quality sampling.	Design team
151				Non-essential staff should not be permitted into the Heap Leach plant premises. The design should make provision for the necessary access control measures, fencing and gates.	Design phase	Without unwarranted exceptions	Project recommendation	Final design	Design team
152				The facility must be equipment with the necessary wash down facilities and eyewash rinsing facilities to deal with chemical spillages onto staff.	Design phase	Without unwarranted exceptions	Project recommendation	Final design	Design team
153			Reduce health and safety risks by ensuring effective worker competence, training, and awareness.	Rössing Uranium should commence with recruitment/ promotion and training of plant operational personal well in advance of the commissioning of the facility to ensure a suitable level of proficiency is achieved.	Design phase	Appointing the best available candidates	Project recommendation	Letters of appointment	Project Management Team
154				All facilities should also to be fitted with the required health and safety warning and information signage that is required and suitable for such installations.	Design phase	Warning and information signage to comply with international norms and standards	OSHA	Final design and physical verification	Design team
155			Effective containment of potential sulphuric acid spills.	Provision of concrete bunding and sealed barriers to effectively contain potential sulphuric acid spills around storage areas.	Design phase	International best practice, thus providing capacity sufficient to contain full potential spill volumes.	Project recommendation	Final design and verification of bund capacity and effective seal specifications.	Design team

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156			Insuring a safe working environment and planning emergency response, and minimising risk to surrounding communities.	Provision of adequate protective instrumentation and drafting of a safety document and detailed Emergency Response Plan – HAZOP analysis to be completed to ensure that both design and operational hazards have been identified.	Design phase	Protective instrumentation to comply with IEC 61508 and IEC 61511 safety instrument standards, the safety document to detail safety and design features that reduce impacts from fires, explosion and flammable atmospheres and the Emergency Response Plan must comply to both Rio Tinto and relevant local authority requirements.	Project recommendation; E5 - Environment Standard - Hazardous Material and Contamination Control; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management	Final design and completed safety features and Emergency Response Plan documents	Design and project management team
157			Ensure adequate emergency procedures are in place to reduce the magnitude of the impacts in the event of an emergency.	Induction training should include detailed coverage of the emergency response and evacuation procedures. Emergency procedures to be established during the design phase.	Design phase	Emergency procedures to be complete, approved, and appropriate. Emergency procedures are included in induction and task specific training	Project recommendation; B7 - OH Standards~ Fitness for work JH50/COP/025~ Safety Training Courses	Final design and verification of training syllabus	Design team and H&E officer
158				Provision of adequate protective instrumentation and drafting of a safety document and detailed Emergency Response Plan – HAZOP analysis to be completed to ensure that both design and operational hazards have been identified.	Design phase	Completed before commencement of respective phases	Project recommendation, Rössing Uranium protocol	Records of HAZOP process	Design team, HSE Department, various line managers, specialists.
159		Noise and Vibration.	Limit the noise generated by the heap leach plant operations.	All plant and equipment should receive regular maintenance and should be operated in accordance with their design specifications. All mechanically powered equipment should be fitted with appropriate silencing devices where possible which are to be inspected and repaired when necessary.	Design phase	Noise efficient design and appropriate use of silencing devices. Rössing Uranium stipulates all operator noise dose exposure limits as 82 dB(A).	JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey Project recommendation; Occupational Health and Safety Act; E6 - Environment Standard - Noise and Vibration Control; B2 - OH Standards - Hearing conservation; B10 - OH Standards - Occupational exposure limits;	Final design	Design team
160				All potential excessive sources of noise from plant or operational areas should be considered in the layout and design of the facilities. Noisy operations or equipment shall occur within areas where sufficient noise dampening exists or where such noise will not affect workers or closest recipients.	Design phase	Plant operation does not result in above standard exterior noise level or excessive noise at closest recipients	JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey Project recommendation; Occupational Health and Safety Act; E6 - Environment Standard - Noise and Vibration Control; B2 - OH Standards - Hearing conservation; B10 - OH Standards - Occupational exposure limits;	Final design	Design team

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161		Public safety.	Reduce the safety risk to the public associate with the heap leach plant.	Strict access control and no unsupervised visitors should be afforded access to this plant.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
162				Acid delivery system design to ensure no wind drift of acid solution occurs.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, physical verification	Design team, HSE Department
163		Resource consumption and optimisation.	Heap Leach plant design to optimise energy use.	Plant to be designed to optimise energy use. Existing Rössing Uranium energy use optimisation and GHG emission programmes, as contained in the GHG emission standard, the Rio Tinto Climate Change Policy, the Environmental Management System Standard, the Air Quality Control Standard, the Biodiversity Guidance Note and the GHG Emission Guidance Note, to apply.	Design phase	Plant operating energy-efficiently as per the GHG emission standard, the Rio Tinto Climate Change Policy, the Environmental Management System Standard, the Air Quality Control Standard, the Biodiversity Guidance Note and the GHG Emission Guidance Note	E4 - Environment Standard - Greenhouse Gas Emissions; JA05/COP/003~ Environmental Management System Code of Practice C2~ Electrical Safety	Final design and energy consumption during operational phase.	Design team
164		Visual impact.	Minimise the visual impact associated with the lighting of the facility at night.	Flood lighting of extensive outdoor areas and up-lighting of vertical structures or topographical forms shall not be permitted. Aircraft warning lights to be provided where required.	Design phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation; Occupational Health and Safety Act	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
165				Lighting in and around the facility should adopt the principle of downward facing, task-specific lighting with limited spillage of light into the surrounding areas.	Design phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation; Occupational Health and Safety Act	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
166				Lighting of the facility should be kept to the efficient minimum.	Design phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring	Project recommendation; Occupational Health and Safety Act	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
167			Minimise the visual impact of the facility during the day.	The heap leach plant and offices are to be painted in non-reflective grey or grey-brown colours. Large machinery needs to be painted a grey-brown desert colour to help reduce the degree of contrast generated.	Design phase	Paint colours RAL 9007, RAL 1014 or similar to be specified	Project recommendation	Non-reflective finish	Design team
168		Waste and pollution	Water management measures at the heap	Workshops and reagent tanks to be contained in a bunded area.	Design phase	Without unwarranted exceptions	Project recommendation	Final Design	Design team

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169		management.	leach plant.	Monitoring boreholes around the facility will be used to check that seepage is not leaving the site in an uncontrolled way. Existing pollution control mechanisms for the tailings facility to remain in place for the heap leach facility, as it will be constructed on the tailings facility. The suitability of the existing system for this purpose must be confirmed.	Design phase	Without unwarranted exceptions	Project recommendation	Final Design	Design team
170			Effective containment of potential sulphuric acid spills.	Provision of concrete bunding and sealed barriers to effectively contain potential sulphuric acid spills. Spill kits containing acid neutralising chemicals must be provided at strategic locations.	Design phase	International best practice, thus providing capacity sufficient to contain full potential spill volumes.	Project recommendation	Final design and verification of bund capacity and effective seal specifications.	Design team
171			Heap leach plant design to include measures to contain and manage potentially polluted runoff.	Design to include purpose-engineered elements such as impervious surfaces, bunding and collection sumps. Collected effluent to be reused or treated in a controlled manner.	Design phase	Zero spills of polluted runoff and successful collection and reuse or treatment.	E5 - Environment Standard - Hazardous Material and Contamination Control; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use	Final design and volumes collected, reused or treated during operational phase.	Design team
172			Safe storage of sulphuric acid.	Bulk Sulphuric acid produced to be stored in the existing tanks, as designed for this purpose. Adequate bunding to be provided at these tanks.	Design phase	Use of existing sulphuric acid storage capacity. Adequate bunding provided (i.e. 110% total storage capacity)	Project recommendation	Final design optimising use of existing sulphuric acid storage capacity.	Design team
173				Localised storage of buffer tanks must provide similar protection measures.	Design phase	Without unwarranted exceptions	Project recommendation	Final Design	Design team
174			Control of movement of storm water around the facility to prevent potential contamination of flows with Heap Leach process solutions.	Suitably sized cut-off drains and berms, along with the concrete containment bunding and flooring should ensure that surface flows are prevented from entering the facilities. The flow capacity of the existing small runoff channel that traverses the site to be confirmed and the upstream area to be shaped and berms provided to ensure storm water drains as required.	Design phase	Storm water controls are adequate in design and capacity	Project recommendation	Final design and design motivation	Design Team, Project Management Team
175				Storm water collecting within the containment bunding of any given facility that may have been contaminated with acid, pregnant solution, hydrocarbons, and other potentially hazardous chemicals should be collected in an appropriately designed drainage network and collection sump. If no longer suitable for reuse should then be pumped to the mine spillage collection system at the processing plant for treatment.	Design phase	No pollution incidents, contaminated storm water system visibly maintained	Project recommendation; E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; B4 - OH Standards - Hazardous substances.	Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team with compliance monitoring by Environmental Management and Health and Safety Officers
176				Heap leach pad and storage tanks should be placed on a platform situated above the 1:2000 year flood high water level.	Design phase	Without unwarranted exceptions	Project recommendation	Final Design	Design team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
177	New ripios disposal areas.	Particulates production and mobilisation.	Strict dust control measures must be implemented to ensure that dust generated by desiccation of stockpiles is limited.	Strict dust control measures to prevent desiccation / mobilisation of ripios over time to be implemented.	Design phase	Maintain within acceptable tolerances	Project recommendation	Final Design	Design team
178		Health and safety of mine workers.	Minimise health and safety risks to workers.	All roads and road safety measures must be planned and implemented. Consideration of blind rises, turning areas, concealed intersections must be considered during the road network planning phase to reduce the risk of traffic accidents.	Design phase	Documented plan	JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	physical verification and layout of mine control systems	Design team, HSE Department
179				Access to the ripios dumps by pedestrians must be strictly controlled. Only authorised persons wearing the appropriate high visibility clothing that are trained and familiar with the dumping operations should be afforded authorisation to enter or depart vehicles on foot in the Ripios dump areas. No pedestrian access should be permitted during night time operations unless persons are equipped with personal, high visibility vests.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
180				Provision should be made to demarcate active dump faces to prevent any pedestrian unwittingly approaching the toe of such slope / bench.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
181		Noise and Vibration.	To reduce the generation of excessive noise and vibration.	Fall heights and travel distances of dumped materials should be limited as far as possible through waste rock dump layout and planning.	Design phase	All excessively noisy plant and equipment have been designed with appropriate noise buffering	Project recommendation; Occupational Health and Safety Act; JK65/COP/011~ Human Vibration Protection JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey JH50/COP/031~ Personal Protective Equipment JH50/COP/026~ Permit to Work and Clearances System JH50/COP/017~ Barricading and Demarcation E6 - Environment Standard - Noise and Vibration Control	Final design and design motivations. Noise monitoring data sheets. Physical verification, routine OHSEC monitoring and reporting	Design and Project Management Team

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
182				No plant (ore processing) generating significant noise should be positioned on the top of the ripios dumps, even temporarily, without consideration for appropriate direction acoustic damping measures.	Design phase	Noise efficient design and appropriate use of silencing devices. Rössing Uranium stipulates all operator noise dose exposure limits as 82 dB(A).	JK65/PRC/003~ Area Noise Survey JK65/PRC/004~ Personal Noise Survey Project recommendation; Occupational Health and Safety Act; E6 - Environment Standard - Noise and Vibration Control; B2 - OH Standards - Hearing conservation; B10 - OH Standards - Occupational exposure limits;	Final design	Design team
183				Ripios conveyor to be located as far away from the site boundary as possible to maintain noise buffer area.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Design team
184		Public safety.	Reduce the safety risk to the public associated with the ripios dumps.	Strict access control to these areas must be observed. A system of sighting, reporting and responding to security breaches from the mine access road and Arandis should be developed using the various plant operators. The mine should erect numerous appropriate warning signage to warn hikers or 4x4 day trippers of the danger, such signs should provide the mines emergency contact details.	Design phase	Without unwarranted exceptions	Project recommendation	layout and design, security planning documentation	Rössing security team, design team
185		Biodiversity.	Assigning Rössing Uranium's biodiversity and establishing suitable monitoring program.	Khan River Mountains and the south-east gneiss hills must be mapped for biodiversity / habitat.	Design phase	Sufficiently comprehensive biodiversity maps produced	Project recommendation;	Physical verification of biodiversity mapping and routine OHSEC monitoring and reporting.	H&E Officer and Biodiversity Specialist
186				Work to improve the understanding of other biodiversity components such as invertebrates, birds, and reptiles is in progress and must continue.	Design phase	Sufficiently comprehensive biodiversity maps produced	Project recommendation	Physical verification of biodiversity mapping and routine OHSEC monitoring and reporting.	H&E Officer and Biodiversity Specialist
187			Establishment of biodiversity rehabilitation programme.	Rehabilitation practices such as preserving and re-spreading of topsoil, seeding and replanting with indigenous species to be tested and site–specific protocols developed for specific habitats.	Design phase	Better understanding of appropriateness of proposed practices and inclusion in Rössing Uranium's biodiversity management strategies.	Project recommendation	Final design and documented rehabilitation plan	Design team and Biodiversity Specialist
188			Minimises impacts on biodiversity and planning for required plant relocations.	Design and planning to make provision for removal of listed plant species and where possible new roads to avoid areas of high diversity.	Design phase	Removal of all listed plant species	Project recommendation	Final design and physical verification	Design team and Biodiversity Specialist

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
189			Reduce the impact of the ripios disposal area on the Rössing Dome and associated operations on biodiversity.	Acquire the necessary permits and expertise so as to undertake a transplant of red data species that would otherwise be destroyed.	Design phase	Search and rescue operations complete before the commencement of operations, where required	Project recommendation	Physical verification	Design team and H&E Officer
190			All residual biodiversity impacts that cannot be effectively remediated must be offset to achieve a net neutral or net positive impact.	Opportunities for offsetting of impacts must be investigated by Rössing Uranium in consultation with the relevant stakeholders.	Design phase	Suitable opportunities identified prior to commencement of new ripios disposal activities on the dome.	Project recommendation	Records of discussions with stakeholders	Design team and Biodiversity Specialist
191		Visual impact.	Minimise visual intrusion associated with expansion activities when view from adjacent, public areas.	Machinery and structures must be painted in grey-brown desert colours to reduce the degree of contrast.	Design phase	Paint colours RAL 9007, RAL 1014 or similar to be specified	Project recommendation	Non-reflective finish	Design team
192				Dust control measures and environmental monitoring systems must be planned in this area to ensure that excessive levels of dust are not generated.	Design phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	Project recommendation; B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JH50/COP/031~ Personal Protective Equipment E2 - Environment Standard - Air Quality Control; JA65/MSP/001~ Monitoring and Measurement JE/50/PIN/003~ Dust Deposition Sampling Occupational Health and Safety Act	Final designs and physical verification	Design and Project management Team
193			The outer edges of the ripios need to be smoothed off so as to reduce the edging angle which increases visual intrusion and create a more rounded shape.	The outer edges of the ripios need to be smoothed off so as to reduce the edging angle which increases visual intrusion and create a more rounded shape.	Design phase	Achieve natural appearance of Ripios dump	Project recommendation	Physical verification	Design team, HSE Department
194		Waste and pollution management.	Water management measures aimed at pollution detection, contaminate and prevention.	Upstream cut-off drains must be planned and installed to attenuate surface flows around the ripios disposal area.	Design phase	Storm water controls are adequate in design and capacity	Project recommendation	Final design and design motivation	Design Team, Project Management Team
195				Surface seepage control facilities to be constructed below the ripios facility in the low gorges.	Design phase	No pollution incidents, contaminated storm water system visibly maintained	Project recommendation; E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; B4 - OH Standards - Hazardous substances.	Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team with compliance monitoring by Environmental Management and Health and Safety Officers

ID:	Component	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
196				Additional boreholes to monitor the effectiveness of the management measures must be planned and sunk ahead of commissioning.	Design phase	No pollution incidents, contaminated storm water system visibly maintained	Project recommendation; E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; B4 - OH Standards - Hazardous substances.	Physical verification and routine OHSEC monitoring and reporting	Design and Project Management Team with compliance monitoring by Environmental Management and Health and Safety Officers
197				The feasibility of using reactive barriers in the tributaries to the Khan should be investigated and implemented where applicable.	Design phase	Formal investigation	Project Recommendation	Record of formal investigations	Design Team, HSE Department

CONSTRUCTION PHASE

ORGANISATIONAL FRAMEWORK

This section relates to the establishment of the organisational framework necessary for the implementation of the prescribed mitigation measures, as included in the OHSEC Mitigation Table on page 47 for the construction phase of the proposed facilities.

Site Organisational framework

The construction phase of the various facilities will be administered through an Engineering Contract, of which the OHSEC Mitigation Table should form part. To ensure that OHSEC considerations receive appropriate attention, it is recommended that an organisational framework be established and that duties and responsibilities for OHSEC aspects of the contract be delegated to specific individuals, thereby ensuring due diligence, capacity, and accountability. To this end, the organisational framework presented in Figure 3 is proposed.

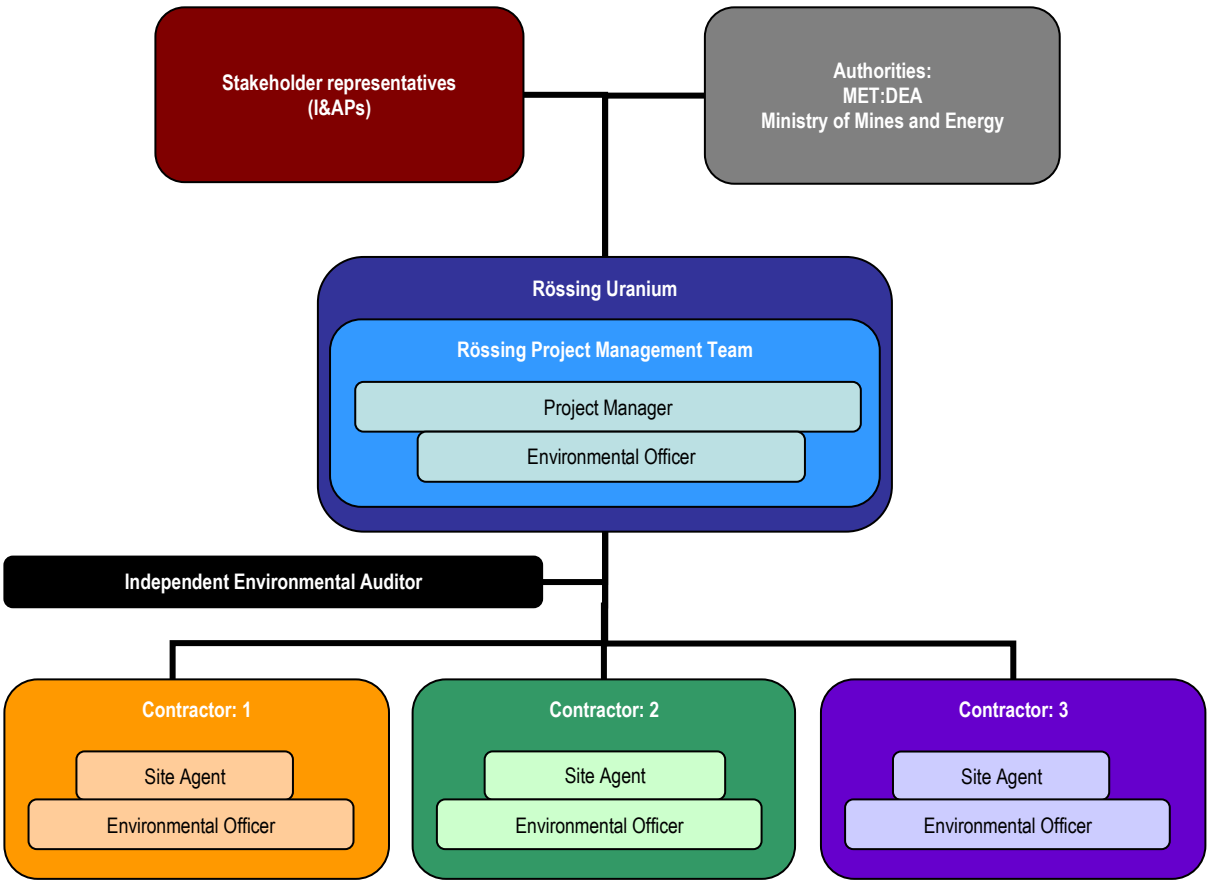

Figure 3: Organisational Framework for Ensuring OHSEC Compliance during Construction

OHSEC management of a construction site remains highly fluid and thus the OHSEC Mitigation Table will not be able to cover every eventuality. It is therefore important that a well-defined organisational framework is in place, detailing delegated responsibilities and allowing for appropriate decision-making on *ad hoc* situations, thus adapting the OHSEC Mitigation Table or management strategies / objectives to changing or unexpected situations. The organisational framework and Rössing Uranium's OHS&E management system also provides an opportunity for co-operative management and sharing of resources between the various contractors, Rössing Uranium as the Employer[6] and any other parties directly or indirectly involved in the construction phase. To this affect, the

[6]The entity with whom the appointed Contractor will enter into contract with to undertake the construction task defined in the contract documents, in this case Rössing Uranium.

Contractors[7] and Employer should be encouraged to pool their resources to save time and cost expended on OHSEC management.

ROLES AND RESPONSIBILITIES

Table 2 provides an overview of the key roles and responsibilities of the various appointments discussed in this section, which are depicted in the organogram in Figure 3.

Table 2: Key Roles of the Various OHSEC Posts

Post / body	Affiliate	Key Role
Authorities	MET:DEA, MME and Arandis Town Council representatives	MET:DEA and MME will be invited to attend monthly site meetings, in particular every 3rd site meeting where the Independent Environmental Auditor will deliver the audit findings.
Stakeholder Representatives	Rössing Foundation Representative and other key stakeholders/ I&APs invited by Rössing Uranium, including authorities	Stakeholders will be invited to a quarterly feedback session, where their queries can be addressed and concerns tabled.
Independent Environmental Auditor (Independent Environmental Auditor)	Independent environmental practitioner	Monthly compliance reports to be tabled at the monthly progress meetings. Three month compliance auditing of the implementation of the SEMP, and functioning of the various OHSEC appointments.
Rössing Uranium's Environmental Officer (Rössing Uranium's Environmental Officer)	Qualified environmental / construction supervisor	Facilitation between Rössing Uranium and various Contractors on OHSEC matters. Compiling a weekly report on the compliance of the various Contractors in terms of the OHSEC Mitigation Table.
Contractors Environmental Officers (Contractor's Environmental Officers)	Suitably senior, designated Contractor employee	Day-to-day monitoring and reporting on compliance of the relevant Contractor in terms of the OHSEC Mitigation Table. Planning and implementation of the OHSEC Mitigation Table, statutory requirements, and *ad hoc* directives.

MONTHLY PROJECT MEETINGS

The Independent Environmental Auditor shall summarise the findings of one's monthly compliance report at the monthly project meetings and present the relevant monitoring and compliance records, incident reports and any other information deemed to be of significance. The Project Manager, giving due consideration to the Independent Environmental Auditor's report findings, with the assistance of the meeting attendees shall determine whether the construction activities have been carried out to an acceptable level of compliance in terms of the various OHSEC requirements.

OHSEC issues will be a standing item on the meeting agenda and status of non-compliance items will be recorded in the minutes.

STAKEHOLDER FEEDBACK

The Rössing Uranium community feedback sessions will be utilised as a forum to also provide feedback to the Stakeholder Representatives on the OHSEC performance and compliance with regard to the SEMP, OHSEC Mitigation Table, authorising conditions, and prevailing legislation. The forum also provides stakeholders with an opportunity to express concerns and complaints and provides a platform for continued strengthening of capacity and input regarding the OHSEC aspects of the construction phase of Rössing Uranium's expansion project. It would also strengthen the relationships between Rössing and the various stakeholders. The Rössing Uranium's Environmental Officer will be required to present a report on these aspects. In addition to the quarterly site meetings, authorities shall also be invited to attend the quarterly stakeholder feedback sessions.

[7]The company or organisation appointed by the Employer to undertake the construction task defined in the relevant contract documents.

APPOINTMENT AND BRIEF OF THE INDEPENDENT ENVIRONMENTAL AUDITOR

The appointed Independent Environmental Auditor should be a duly qualified, independent, environmental practitioner with the necessary experience in the construction industry. The position would be a part-time position and should require, on average, 3 or 4 days per month to fulfil the role. The Independent Environmental Auditor's responsibilities include the following:

- Compile formal monthly reports for each of the Contracts, based on~
  - Physical observations during monthly site inspection,
  - Rössing Uranium and Contractors Environmental Officers' daily and weekly internal reports (site diaries);
- Liaise with the Project Management Team, stakeholders, the general public and the Contractor's Environmental Officers on *ad hoc* OHSEC matters;
- Undertake quarterly OHSEC compliance audits in terms of the SEMP on the various Contracts and present a report to the Project Management Team;
- Have sight of and make recommendations to the Project Management Team with regard to the Contractor's key OHSEC method statements; and
- Present technical matters and issues requiring discussion at the monthly project meetings.

Where non-conformances are identified by the Independent Environmental Auditor during the quarterly audits and corrective action is requested, the Independent Environmental Auditor shall signoff that the necessary corrective actions have been affected, by way of formal letter. Copies of the signed-off corrective actions shall be included in the subsequent audit report.

APPOINTMENT AND BRIEF OF RÖSSING URANIUM'S ENVIRONMENTAL OFFICER

A suitably senior member of the Employer's staff should be appointed to the position of Rössing Uranium's Environmental Officer by means of formal designation. It is recommended that this individual be otherwise affiliated with the administration of the construction contracts and should have a good aptitude for construction activities and the principles of OHSEC management, as well as being sufficiently familiar with Rössing Uranium's HSE management systems. It is envisaged that the Rössing Uranium's Environmental Officer will be from the Rössing Uranium Sustainable Development or Health and Safety Department, or be specifically appointed by Rössing Uranium for this purpose.

The Rössing Uranium's Environmental Officer's responsibilities include the following:

- Advise the Independent Environmental Auditor and Contractor's Environmental Officers on Rössing Uranium's HSE management systems, policies and procedures on OHSEC management to ensure continuity;
- Assist in the facilitation and accommodation of the Contractor's needs on matters relating to compliance with the OHSEC Mitigation Table:
  - The establishment and implementation of an OHSEC monitoring programme for the monitoring and recording of construction related impacts;
  - Record and report on OHSEC performance of the various Contractors against the OHSEC Mitigation Table;
  - Undertake a daily site inspection of each of the contract areas and compilation of an all-encompassing internal weekly compliance report for submission to the Independent Environmental Auditor, Project Manager (Project Manager) and the respective Contractor's Environmental Officers;
  - Photograph, investigate and compilation of reports on any OHSEC incidents, forming part of the daily report, that may occur, and to notify the Independent Environmental Auditor and Project Manager thereof;
  - Liaise with the Project Manager and Independent Environmental Auditor regarding the review, commenting-on and approval of the Contractor's method statements;
  - Liaise with the Independent Environmental Auditor, Project Manager and the Contractor's Environmental Officers on ad hoc OHSEC matters and advising the Contractor's Environmental Officers on day-to-day OHSEC management issues; and
  - Liaise with the Project Manager regarding the quantification and issuing of penalties for non-compliance.

APPOINTMENT AND BRIEF OF THE CONTRACTOR'S ENVIRONMENTAL OFFICERS

A suitably senior member of each Contractor's or internal team's staff should be delegated the responsibilities of the Environmental Officer. The role of the Contractor's Environmental Officer is to ensure the physical implementation of the OHSEC Mitigation Table. The duties of the Contractor's Environmental Officer include:

- Keeping a daily site diary detailing the key events and observation for the day, copies of which shall be submitted to the Rössing Uranium's Environmental Officer as part of the weekly submissions;
- Compiling the required method statements, or the OHSEC section of the technical method statements, for review and approval by the Project Management Team;
- Establishing and maintaining appropriate management systems for routine OHSEC management tasks, which may include but will not be limited to the following~

o Waste collection, handling, storage, transport and disposal, including sewerage, domestic, construction and hazardous wastes,
o Dust control within the area of activity,
o Regular dust monitoring,
o Noise control within the area of activity,
o Regular noise monitoring,
o Handling, storage, distribution and storage of hazardous materials, including fuels and lubricants,
o Establishing and maintaining a program for the maintenance of housekeeping at each of the works areas,
o Establishing and maintaining a system for the handling and treatment of contaminated water from construction activities, and
o Acquiring and maintaining the necessary fire, spillage and other accident and emergency response materials that may be required to deal with and contain the damage caused by such accidents;

- Notifying the Rössing Uranium's Environmental Officer of OHSEC incidents as well as initiating appropriate response actions to such incidents;
- Initiating and supervising any remedial OHSEC actions;
- Establishing a program and undertaking or ensuring that staff receive regular OHSEC awareness training as part of tool-box talks;
- Liaising with the Independent Environmental Auditor and Rössing Uranium's Environmental Officer on technical aspects of OHSEC matters; and
- Furnishing the Rössing Uranium's Environmental Officer each week with the necessary information required for compliance monitoring, which may include certificates of waste disposal, records of public complaints, incidents and accidents, daily site diary entries, labour statistics, fallout dust measurement data, etc.

MANAGEMENT TOOLS

The key to effective OHSEC management during the construction phase is to ensure that the requirements of the SEMP, specifically the OHSEC Mitigation measures, are adequately and appropriately implemented on site. The aforementioned OHSEC project organisational framework ensures that sufficient capacity for OHSEC management exists and that the roles and responsibilities have been adequately defined to ensure implementation and accountability. It should be noted that the roles of these various positions may be redefined as the construction phase becomes established and the primary focus of each of the designated positions may shift as the project progresses. Sufficient flexibility must be allowed for such adaptation and amendment. To ensure that these designated positions operate effectively in establishing and maintaining compliance with the OHSEC Mitigation measures, the following management tools are recommended.

CONSIDERATIONS AT TENDER ADJUDICATION

To ensure that the appointed Contractors have made the necessary financial and resource provisions available to meet the OHSEC obligations in terms of the OHSEC Mitigation Table and SEMP, it is essential that the OHSEC requirements be incorporated in the tender documentation and that the tender adjudication process takes cognisance of these aspects of the tender submissions. The following items are to be included in the tender submissions:

CONTRACTOR'S SOCIAL AND ENVIRONMENTAL POLICY

All Contractors should submit existing or compile a draft Social and Environmental Policy (Social and Environmental Policy) in line with Rössing Uranium's existing Occupational Health, Safety and Environment (OHS&E) policy (refer to Appendix 1), statutory requirements and the OHSEC Mitigation Table. The draft Social and Environmental Policy should be compiled and submitted as part of the tender submission and considered during the tender adjudication process. The Social and Environmental Policy of the successful bidder will, upon award of the contract, be finalised for approval and will form part of the SEMP for the specific Contract and the Contractor's performance in relation to it and should be evaluated as part of the Independent Environmental Auditor's quarterly environmental audit.

OHSEC MITIGATION TABLE AND BILL OF QUANTITIES

The OHSEC Mitigation Table is to be included as part of the tender documentation and the Bill of Quantities. The Contractor shall be required to cost the OHSEC aspects that one may need to commit oneself to in undertaking the construction tasks and failure to do so may result in disqualification.

METHOD STATEMENTS

To ensure that adequate forethought is given to the rollout of the construction operations and the implications thereof, the compilation, review and approval of method statements is a well-demonstrated means of ensuring that adequate risk identification and aversion, resource allocation and general planning are in place ahead of the commencement of any major construction task. Once approved, a method statement is to be issued to the Contractor's staff responsible for the implementation, to serve as a work procedure. A method statement should equip a suitably qualified reader with sufficient information regarding the task to allow for implementation without further instruction. In essence the method statement should answer the What? Why? Where? How? Who? When? type questions in adequate detail. Whilst several OHSEC method statements are prescribed from the outset, each of the technical method statements should contain a subsection that deals with OHSEC considerations specific to that task.

Two categories of method statement can be defined, the first are those that are prescribed by the Contract whereas the second relate to method statements that are requested from the Contractor by the Project Management Team, which address specific *ad hoc* construction issues and are mostly technical in nature. The Contractor shall submit the prescribed method statements within one month after site establishment. All *ad hoc* method statements shall be submitted to the Project Management Team at least two weeks prior to the commencement of the task, to allow sufficient time for the review and approval process to occur. Except for emergency works with the Project Manager's consent, the Contractor shall not commence any activity until the respective method statement is finalised and approved.

TASK-SPECIFIC RISK ASSESSMENTS

The Contractor is required to submit a site-specific health and safety plan, which includes a task-specific risk assessment. The risk assessment covers environmental and health and safety aspects, work methods and construction risks associated with each task that the Contractor team will or is likely to perform in the execution of the works. A Contractor shall not commence any activity without having undertaken a task-specific risk assessment. Risk assessments are to be used to inform safe work procedures presented in relevant method statements.

OHSEC AWARENESS

To encourage compliance with the OHSEC Mitigation Table and other statutory requirements, it is essential that all levels of construction workers and management are made fully aware and continually reminded of these obligations. In order to achieve this, the following mechanisms are prescribed. The Contractor, at one's own discretion, may wish to institute additional measures to enforce the requirements of the OHSEC Mitigation Table.

WORKER HIV/AIDS AWARENESS PROGRAMME

The Rössing Uranium HIV/AIDS Policy of 14 April 2000 currently in place at the Rössing Mine must be extended to the Contractor's workforce. The four key HIV/AIDS programme elements of the Contractor's HIV/AIDS Awareness Programme shall include:

- Prevention, Awareness and Education;

- Voluntary Counselling and Testing;
- Wellness, Counselling and Affordable Treatment; and
- Monitoring and Evaluation.

The Contractor shall be required to submit an HIV/AIDS Awareness Programme, in line with these requirements, upon the award of the Contract. All levels of the Contractor's staff shall attend an HIV/AIDS awareness course as soon after commencement as is possible, preferably as part of the induction training course. It is recommended that the existing Rössing Uranium awareness course be used for this purpose or that a specialist organisation be commissioned to deliver such a course.

OHSEC INDUCTION TRAINING

It has become common practice to include the OHSEC aspects of the project as part of the standard worker health and safety induction programme that accompanies the appointment of new staff.

It is recommended that the Contractor submit an OHSEC Induction Training syllabus to the Project Management Team and Independent Environmental Auditor for approval before the course is delivered to the workforce. The Contractor's Environmental Officer shall present the approved course to all construction staff under the auspices of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor. All attendees shall sign an attendance register as well as a Code of Conduct booklet, which will serve as evidence that the individual has been informed, understands, and accepts that fines or other punitive measures may be instituted against an offender in the event of non-compliance with the requirements of the OHSEC Mitigation Table and SEMP.

Contractors currently working for Rössing Uranium (i.e., mining contractor) that have already undergone induction training will not be required to undergo induction training again, provided that such training adequately addresses the requirements of the OHSEC mitigation table. Such Contractor's will however be required to undertake task specific training to addresses OHSEC issues specific to the new areas of endeavour.

TOOLBOX TALKS

To ensure that the level of OHSEC awareness amongst the construction staff remains high, pertinent, task-related, OHSEC considerations shall be presented as an aspect of the toolbox talks or task briefing sessions, at least once a week. Topics shall be relevant to the type of work, and areas or aspects of poor performance may include handling of certain hazardous materials, housekeeping, dust suppression, water and electricity usage, discussions around recent incidents or issued fines.

SIGNAGE AND INFORMATION POSTERS

Posters and signage depicting the OHSEC "dos and don'ts" should be erected at prominent locations throughout the site. A large signboard should be erected at the entrance to the contract area to ensure that all visitors and contract workers are made aware of their obligations whilst on the site.

The Contractor shall be held accountable for any transgressions of the OHSEC Mitigation Table within his/her contract area, whether by his/her personnel or not. It is therefore up to the Contractor to ensure that all persons entering his/her site are authorised to do so and are aware of the various OHSEC controls in effect.

CODE OF CONDUCT BOOKLET FOR SITE WORKERS AND VISITORS

The Contractor shall submit a preliminary version of a Code of Conduct booklet as part of the OHSEC Awareness training method statement for review and approval. All visitors to the Contractor's site shall be issued with a Code of Conduct booklet. After reading the booklet, the front and back page of the booklet is to be signed, the back page to be removed and kept by the Contractor. The booklet shall contain key information relating to the OHSEC "dos and "don'ts" on the site. The booklet shall also contain contact details of the Contractor's OHSEC personnel and the applicable emergency numbers. Emergency procedures shall also be included in the booklet as well as a map of the construction site indicating the locations of fire equipment, first aid, emergency assembly points and escape routes as well as any environmental exclusion (no-go) areas.

OHSEC MONITORING

The organisational framework and the posts and briefs of the appointments discussed previously should be the means by which responsibilities for the monitoring of construction activity in terms of this SEMP occur. The key roles of the various posts are summarised in Table 2. Note that since the SEMP is deemed to include relevant MET:DEA authorisation conditions, such should be included as an appendix to this document.

The OHSEC monitoring role rests with the Contractor's Environmental Officer, who, by virtue of a daily diary entry, will record the actual physical performance of each of the contractors in terms of the OHSEC Mitigation Table on a real time basis. The Contractor's Environmental Officer shall also be responsible for ensuring that work is carried out in terms of the approved method statements and OHSEC Mitigation Table and that any deviations or non-compliances are captured in the daily diary entries. The Contractor's Environmental Officer's daily diary entries shall be copied to the Rössing Uranium's Environmental Officer at frequent intervals, to be agreed.

The Rössing Uranium's Environmental Officer shall utilise the Contractor's daily diary entries along with on-site observations, monitoring data and any other information available to compile an internal weekly report per Contract, detailing the performance of the Contractor during that week. The internal weekly report shall be submitted to the Project Manager, who, after reviewing it will disseminate the information to the Independent Environmental Auditor as well as the respective Contractor.

The Independent Environmental Auditor's efforts shall be more focused on the implementation and functioning of the various OHSEC positions, systems and their functions, with lesser effort being dedicated toward the resolution of the minor technical or OHSEC site problems. The Independent Environmental Auditor shall compile a formal monthly compliance report, based on the Rössing Uranium's Environmental Officer's weekly internal reports, site observations and any other information at his or her disposal. The Independent Environmental Auditor shall present a summary of report findings at the monthly project meetings.

The Contractor shall notify the Project Management Team of an OHSEC incident or accident as soon as possible and shall submit an incident report within 24 hours. The Contractor's Environmental Officer, Rössing Uranium's Environmental Officer and relevant health and safety personal shall conduct a joint incident investigation and undertake a root cause analysis. The findings of the investigation shall be utilised to update the Contractor's health and safety plan, which may result in the modification of written "safe work procedures".

OHSEC REPORTING

It is essential that the performance or level of compliance of the Contractors in terms of the OHSEC Mitigation Table and other statutory requirements are meticulously recorded to allow Rössing Uranium to demonstrate compliance in terms of the SEIA, SEMP, statutory requirements, and conditions of authorisation. The reporting structure also serves as a management tool in that, in particular the Independent Environmental Auditor's audit reports, will ensure that all the OHSEC designations, key stakeholders and authorities are kept well informed of the Contractor's activities and performance. Table 3 summarises the OHSEC reporting responsibilities.

Table 3: OHSEC Reporting Responsibilities

Report Title	Compiled	Author	Distribution	Content / description
Contractor's Submissions (Per Contract)	Weekly	Contractor's Environmental Officer	Rössing Uranium's Environmental Officer Independent Environmental Auditor Project Manager	• Daily site diary entry: ○ Site conditions ○ General progress description ○ Description of specific OHSEC problem areas and responses ○ Description of remedial action taken ○ Description of progress of remedial work ○ Incident, accident and event reports, ○ Public complaints ○ General comments ○ Labour statistics • Accident and incident investigations and root cause analysis • Task specific risk assessments • Water Usage volumes • Fallout dust volumes • Noise level monitoring data • In house OHSEC fines issued • *Ad hoc* OHSEC performance related items, to be requested by the Independent Environmental Auditor or the Project Management Team
Internal Report Per Contract	Weekly	Rössing Uranium's Environmental Officer	Contractor's Environmental Officer Independent Environmental Auditor Project Manager	• site conditions • General progress description • Description of specific OHSEC problem areas and responses • Description of remedial action requests • Description of progress of remedial work • Method statement status report including those received, reviewed and approved • Review and comment on the dust and noise monitoring data • Incident, accident reports, investigations and root cause analysis • Public complaints • General comments
Monthly Compliance Report Per Contract	Monthly	Independent Environmental Auditor	Rössing Uranium's Environmental Officer Contracto'rs Environmental Officer Project Manager	• Response letter to the Rössing Uranium's Environmental Officer's reports, highlighting areas of concern and making recommendations where appropriate • Key observations made during a weekly site inspection
Quarterly Audit Per Contract	3 Months	Independent Environmental Auditor	Project Management Meeting Attendees	• Evaluate of the performance of the Rössing Uranium's Environmental Officer to undertake his/her designated duties • Evaluation of the performance of the Contractor's Environmental Officer to undertake his/her designated duties • Compliance audit of the Contractor in terms of the requirements of the OHSEC Mitigation Table • Scoring on the level of performance

OHSEC AUDITS

The Independent Environmental Auditor should undertake an OHSEC audit of each of the Contracts, every three months, to be presented to the stakeholder representatives. The objective of the audit is to ensure that various posts comprising the OHSEC organisational framework are functioning effectively in terms of their brief, that compliance with the OHSEC Mitigation Table is being achieved, that *ad hoc* decision making on OHSEC matters and the response to any incidents are appropriate and executed effectively. The Independent Environmental Auditor shall score the Contractor's performance in each audit report. Once the audit report is in the hands of the authorities, they, together with the Project Management Team, will consider whether the Contractor's performance in relation to the OHSEC Mitigation Table is of an acceptable standard.

PENALTIES FOR NON-COMPLIANCE

The Project Manager, on recommendation of the Rössing Uranium's Environmental Officer, Independent Environmental Auditor, and Stakeholder Representatives, shall be the implementing agent with regard to the

application of penalties. It should be recognised that when deciding on punitive measures, effective implementation of the OHSEC Mitigation Table is highly dependent on the maintenance of a good working relationship between the Rössing Uranium's Environmental Officer, Contractor's Environmental Officers, and the Independent Environmental Auditor. An ill-considered or negative response to non-compliance, particularly minor or unintentional transgressions, may cause a breakdown in these relationships, which in itself could lead to increased environmental risk in terms of the frequency and severity of environmental incidents. It is therefore recommended that the following penalties only be considered when the non-compliant Contractor demonstrates apathy in response to a non-compliance, or is found to be repeatedly or deliberately not meeting his/her obligations.

WITHHOLDING PAYMENT

Certain aspects of complying with the OHSEC Mitigation Table will have been priced in the tender documentation. In the event that a Contractor underperforms with regard to a priced item, the Project Manager shall withhold payment on such item until such time as the non-compliance has been rectified.

REMOVAL FROM SITE

In the event that a certain individual or particular plant or machinery is determined to be problematic and the cause of recurring environmental degradation, the Project Manager may issue an instruction to have such person or plant or machinery permanently removed from the site.

MAKING GOOD ON ENVIRONMENTAL DAMAGE

Where the Contractor has not complied with the requirements of the OHSEC Mitigation Table, statutory requirements or Project Management Team directives, all remedial work shall be to the cost of the Contractor and shall be carried out to the satisfaction of the Independent Environmental Auditor and Rössing Uranium's Environmental Officer.

SUSPENSION OF WORKS

In the event that the above punitive measures are not having an adequate effect on the OHSEC performance of the Contractor or where OHSEC incident or degradation as a result of the construction activity is severe, the Project Manager may suspend the works until such matters have been resolved to the satisfaction of the Independent Environmental Auditor and Rössing Uranium's Environmental Officer. The costs associated with such a work stoppage shall be to the account of the Contractor.

OHSEC PERFORMANCE INCENTIVES

The Contractor is to be encouraged to introduce an incentives programme for employees, rewarding good OHSEC performance. An incentives programme can allow an opportunity for competition and performance motivation between various teams working on the site.

CONSTRUCTION PHASE OHSEC MITIGATION TABLE

The OHSEC mitigation measures table included herewith is aimed at facilitating effective OHSEC mitigation implementation during the construction phase, as well as monitoring and auditing thereof. To assist with the cross-referencing between OHSEC mitigation prescribed and existing Rössing Uranium HSE management system procedures, a full list of Rössing Uranium HSE management system procedures (as provided by Rössing Uranium) that may be applicable, has been included as Appendix B, although relevant references are provided in the Rössing Uranium HSE Reference column of the OHSEC Mitigation Table. This list and column references are not necessarily exhaustive and could require updating by Rössing Uranium.

Table 4: Construction Phase OHSEC Mitigation Measures

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
1	Legal compliance considerations	Compliance with legal requirements	Conditions of authorisation by authorities to be incorporated into Final SEMP.	Upon receipt of authorisation	Before Construction; MET:DEA conditions of clearance	Project Requirement	Verify paperwork	SEIA Practitioner
2			Awarding of Contract not to occur before the authorisation is granted and tendering contractors have received the conditions of authorisation.	Once off	Without unwarranted exceptions; MET:DEA conditions of clearance	Project Requirement	Verify paperwork: Date of Contractor appointment	Rössing Uranium Project Management Team
3	Ensuring Contractor is committed to responsible OHSEC management and has allocated sufficient resources to realise this	OHSEC and social aspects to be considered during the adjudication of tenders	Prospective contractors shall undergo Rössing Uranium's prequalification process to assess the Contractor's HSE systems and past performance.	Once off at pre-tender	Without unwarranted exceptions	Project Requirement	Verify paperwork	Rössing Uranium Project Management Team
4			OHSEC mitigation table to form part of the Tender and Contract Documentation.	Once off at pre-tender	Without unwarranted exceptions	Project Requirement	Verify paperwork	SEIA Practitioner and Project Management Team
5			OHSEC management tasks identified in the OHSEC Mitigation Table and SEMP must be included in the Bill of Quantities and the Contractor shall be required to allocate finances toward OHSEC management requirements.	Once off at pre-tender	Without unwarranted exceptions	Project Requirement	Verify paperwork	Project Management Team and Contractor
6			Contractor is required to submit an OHSEC Policy as part of the tender submission that is in line with Rössing Uranium's HSE Policy and the prevailing legislation.	Once off at tender adjudication	In line with Rössing Uranium 's HSE Policy	Project Requirement	Verify paperwork	Contractor
7			Rössing Uranium should through its recruitment policy, ensure equitable employment opportunities for marginalised groups and expand its skills and capacity development programme to address the disadvantages of low skills and experience in the labour pool and make these programmes available to the contractor's workforce.	Contract term	Without unwarranted exceptions	Project Requirement	Verify paper work and tender documents and employment records.	Rössing Uranium Project Management Team
8			Tender criteria should require training and development of the contractor workforce by the Contractor. In particular, the Contractor should identify and focus on skills that would enable construction workers to become part of Rössing Uranium's permanent workforce when the construction phase ends. Contractors should be required to prioritise local labour and to ensure employment equity by employing representatives of marginalised groups.	Contract term	Without unwarranted exceptions	Project Requirement	Verify paper work and tender documents	Rössing Uranium Project Management Team
9	Establish an OHSEC management framework to	Ensuring the implementation of OHSEC management	OHSEC mitigation table to form part of the Tender and Contract Documentation.	Contract term	Without unwarranted exceptions	Project Requirement	Verify paper work and tender documents	Rössing Uranium Project Management Team

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
10	oversee compliance of the construction Contracts	best practice and recommended mitigations during construction	Rössing Uranium to appoint Rössing Uranium's Environmental Officer (Rössing Uranium's Environmental Officer) to monitor Contractor's compliance with regard to the SEMP and OHSEC Mitigation Table.	Appointment to occur as soon as possible after the awarding of the Contract and span the Contract Term	Without unwarranted exceptions	Project Requirement	Signed letter of appointment including Terms of Reference	Rössing Uranium Project Management Team
11			The OHSEC Mitigation Table requires Contractor to appoint a designated Contractor's Environmental Officer (Contractor's Environmental Officer) to undertake compliance monitoring and guide construction activities in line with the SEMP and OHSEC Mitigation Table.	Appointment to occur as soon as possible after the awarding of the Contract and span the Contract Term	Without unwarranted exceptions	Project Requirement	Signed letter of appointment including Terms of Reference	Rössing Uranium Project Management Team and Contractor
12		Contractually bind Contractor commitment to sound OHSEC management principles	HSE Policy submitted as part of Tender submission to be implemented by the appointed Contractor. The HSE policy to form part of the Tender adjudication process.	Tender adjudication and through the Contract Term	In line with Rössing Uranium's HSE Policy and prevailing legislation	JA05/POL/001~ HSE Policy Strategies	Verify paperwork	Rössing Uranium Project Management Team and Contractor
13			OHSEC mitigation table to form part of the Tender Documentation.	Pre-Tender and tender adjudication	Without unwarranted exceptions	Project Requirement	Verify paperwork	Rössing Uranium Project Management Team
14			Contractors are to be advised as part of the tender documentation that the Contract will not be awarded to a Tenderer apportioning an unrealistically low amount to OHSEC management.	Pre-tender and tender adjudication	Without unwarranted exceptions	Project Requirement	Verify paperwork: Tender Documentation	Rössing Uranium Project Management Team
15		Verification of performance through independent involvement and OHSEC monitoring	Rössing Uranium to appoint an Independent Environmental Auditor (Independent Environmental Auditor) to undertake compliance monitoring and auditing in terms of the SEMP, OHSEC Mitigation Table and other statutory requirements.	Contract Term	Without unwarranted exceptions	Project Requirement	Signed letter of appointment including Terms of Reference	Rössing Uranium Project Management Team
16			Key stakeholder representatives to be invited to observe site meetings.	Contract Term	Representatives, including MET:DEA, Arandis Town Council and MME	Project Requirement	Attendance register of meeting minutes	Rössing Uranium Project Management Team

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
17			OHSEC monitoring programme for the recording of dust, noise and water use to be established and implemented. This should ideally be linked to the permanent or operational dust monitoring programme as best as possible.	Contract term	According to the applicable standards	JA75/MSP/004~ Record-keeping Procedure B1 - Particulate and gas or vapour exposures; B2 - Hearing conservation; B10 - Occupational exposure limits; E2 - Environment Standard~ Air Quality Control JA05/COP/003~ Environmental Management System Code of Practice E10 - Environment Standard~ Water Use and Quality Control JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting JA40/MSP/003~ Document Control Procedure JA75/MSP/004~ Record-keeping Procedure JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers JE/50/PIN/003~ Dust Deposition Sampling	Compliance with respective standard	Rössing Uranium's Environmental Officer Contractor's Environmental Officer and Independent Environmental Auditor
18		Integrate the management of the construction Contracts into Rössing Uranium's existing OHSEC management framework to ensure continuity	Rössing Uranium's OHSEC management procedures to be made available to the Contractor during the compilation of the various method statements to ensure continuity of management style and best practice.	*Ad hoc*	Achieve similar quality of OHSEC planning to that found on the mine	Various ISO:Environmental Management System Procedures relating to water, dust, noise, radon, induction training	Method statements approved and method statement rejected	Rössing Uranium's Environmental Officer and Contractor's Environmental Officer
19	Ensuring adequate OHSEC protections are planned at the commencement	Embody the need for OHSEC planning to form part of the regular planning of construction operations in the Contract	To be specified that each method statement shall contain subsections dealing with OHSEC considerations specific to that task.	Contract term	All method statements to have HSE subsection	Project Requirement	Verification	EIA consultant, Rössing Uranium project Management Team
20			The following method statements are to be submitted:	Within 14 day of arriving on site	Without unwarranted exceptions	Project Requirement	Verify paperwork	Contractor / Contractor's Environmental Officer
21			*OHSEC Awareness Course: Syllabus and logistics regarding the presentation;*			JH50/COP/025~ Safety Training Courses JA30/MSP/013~ Identification of training needs and training methods		
22			*Construction Camp Layout and functioning (Including storm water management);*			Project Requirement		
23			*Fuel storage area (Including OHSEC protection measures);*			JE50/WMP/002~ Disposal and re-use of hydrocarbons JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
24			*Concrete Batching Plant and the management of concrete operations;*			E9 - Environment Standard~ Land-Use Stewardship		
25			*Waste Management System;*			C3~ Vehicles and Driving JE50/WMP/002~ Disposal and re-use of hydrocarbons JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JE50/WMP/012~ Disposal of oil and diesel filters JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/015~ Disposal of oil trap residue to oil separation tank		
26			*Dealing with Contaminated Water;*			JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JK65/PRD/003~ Disposal of Contaminated Items		
27			*Water Use Management Plan;*			JE50/OWM/003~ Water Recycling and Re-Use		
28			*Extent of areas to be cleared;*			Final Design		
29			*Method of undertaking earthworks, including topsoil handling and erosion, dust and noise controls;*			Project Requirement		
30			*In the unlikely event that pesticides are required in the construction camp areas for pest control, the use of pesticides and other poisonous substances, including means of storage;*			JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JK65/PRD/003~ Disposal of Contaminated Items		
31			*Dust control, including methods to prevent dust generation and method to reduce dust where its generation is unavoidable; and*			JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers JE/50/PIN/003~ Dust Deposition Sampling B1 - OH Standards~ Particulate and gas or vapour exposures		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
32			*Emergency procedures for spillages of hazardous substances, fire and serious accidents.*			JH50/COP/013~ Storage of Flammable & Explosive Material; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management B4 - OH Standards - Hazardous substances; JA75/MSP/004~ Record-keeping Procedure JA45/MSP/002~ Communication and Reporting E5 - Environment Standard - Hazardous Material and Contamination Control; JK65/PRD/007~ Transport of Contaminated Items JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage		
33		Minimise the risk of societal unrest associated with the influx of Construction workers.	Rössing Uranium should: ensure that construction camps are located at a sufficient distance from existing communities to prevent disruption of these communities, where this is not possible, measures must be implemented to manage potential impact on receiving communities. These camps should be managed to ensure safe and hygienic living conditions. Undertake oversight of the construction camp management plan to ensure that construction workers have accommodation that is safe, hygienic, and commensurate with an acceptable lifestyle. Make its construction camp policy public as soon as possible so as to manage expectations and curtail developments which are being undertaken in anticipation of accommodating the Rössing Uranium construction camp, and use local labour and contractors wherever possible to limit the number of external contractors and employees who do not have accommodation in the area. It is possible that there will be a number of construction camps in proximity to each other, serving different mining companies. To avoid labour unrest and ensure the stability of the construction workforce, Rössing Uranium should promote the establishment of health, safety and environment policies, and programmes which are aligned across all the camps.	Contract term	Distances or other measures to prevent workers frequenting community gathering places or residential areas.	Project requirement	Camp placement, physical verification, and monitoring of worker movements and interactions with receiving communities.	Contractor, Contractor's Environmental Officer , Rössing Uranium's Environmental Officer
34	Communication with Contractor, Contractor's staff and other stakeholders	To ensure that effective and formal communication between the Project Management Team and the Contractor on OHSEC issues and that communication	OHSEC performance to be an item on the agenda of all monthly meetings.	Contract term	Ensure OHSEC aspects are given adequate importance and are not side-lined by technical matters	Project Requirement	Minutes of meetings	Project Manager
35			OHSEC operations to be included in the Contractor's programme and reported on in progress reports.	Contract term	Ensure that resources are allocated and operations undertaken timeously	Project Requirement	Progress reports	Contractor
36			The Contractor's Environmental Officer to have sufficient authority in terms of the Contractor's organisational framework to initiate the necessary OHSEC management actions.	Contract term	OHSEC aspects receive adequate attention	Project Requirement	Number of incidents to the contrary	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
37		and instruction carry sufficient weight	System regarding method statement compilation, submission, review, and approval to be rigorously implemented.	Contact term	No construction having commenced without approved method statement, Without unwarranted exceptions	Project Requirement	Rössing Uranium's Environmental Officer / Independent Environmental Auditor reports	All, Project Manager
38			All correspondence relating to OHSEC issues between the Contractor and the Project Management Team to be signed by the Contractor's Site Agent and the Project Manager respectively.	*Ad hoc*	Document control system in place,	JA45/MSP/002~ Communication and Reporting JA40/MSP/003~ Document Control Procedure JA75/MSP/004~ Record-keeping Procedure JA45/MSP/007~ External Communications/Complaints	Verify paperwork	Project Manager, site Agent, Contractor's Environmental Officer , Rössing Uranium's Environmental Officer
39	Communication with the external stakeholders	Ensure that the public and various stakeholders have a means of raising concerns and be kept informed of general project progress	Key stakeholder representatives to be invited to attend monthly site meetings including MET:DEA, Arandis Town Council and MME.	Contract term	Stakeholder attendance and participation	Project Requirement	Minutes of meetings and meeting attendance registers	Project Manager
40			Quarterly feedback meetings, regarding general project progress and Contractor's OHSEC performance to be held with Interested and Affected Parties and key NGOs.	Quarterly, throughout contract term	Without unwarranted exceptions	Project Requirement	Minutes of meetings and meeting attendance registers	Project Manager
41			Contact numbers of the Contractor to be prominently displayed at the entrance to the site.	Contract term	Without unwarranted exceptions from commencement	Project Requirement	Physical verification	Contractor
42			Public complaints register to be kept by the Contractor, copies to be submitted to the Project Manager and discussed during monthly site meetings.	Contract term	Without unwarranted exceptions	JA45/MSP/007~ External Communications/Complaints	Physical verification and Contractor's weekly submissions	Contractor and Contractor's Environmental Officer
43			Rössing Uranium should establish a public participation programme to allow public and authorities a platform to voice concerns or complaints relating to construction and operational issues arising. This forum should also be used to broadcast information relating to employment or service provision opportunities, aimed at curbing inward migration. Methods of broadcasting or disseminating relevant information to distant labour feeder communities should be investigated; efforts to identify and communicate with community leaders should be explored.	Contract term	Without unwarranted exceptions	JA45/MSP/007~ External Communications/Complaints	Physical verification and Contractor's weekly submissions	Contractor and Contractor's Environmental Officer
44	OHSEC Awareness and attitude of the Contractor's Staff toward OHSEC matters	Ensuring sufficient OHSEC awareness at commencement	Contractor's OHSEC Induction training course and Code of Conduct Booklet to be submitted and approved.	Submission within 14 days of commencement	Without unwarranted exceptions	JH50/COP/025~ Safety Training Courses JH50/COP/024~ Induction JA30/MSP/013~ Identification of training needs and training methods	Rössing Uranium's Environmental Officer report	Contractor and Contractor's Environmental Officer
45			OHSEC awareness induction course to be presented to all levels of staff at the commencement of construction.	Within 28 days after commencement and a refresher course every year or as may be required.	All staff to have received induction training	Project Requirement	Signed Code of Conduct Booklet held by each person on site	Contractor and Contractor's Environmental Officer

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
46		Ensuring on-going OHSEC awareness	OHSEC aspects are to form part regular toolbox talks and task briefing sessions.	*Ad hoc* / monthly	An OHSEC or social topic to be dealt with on at least a monthly basis	JA30/MSP/013~ Identification of training needs and training methods	Contractor's Environmental Officer daily dairies and Contractor's weekly submissions	Contractor, Contractor's Environmental Officer and Contractor's team supervisors
47			Appropriate OHSEC signage and information posters to be prominently displayed and maintained at key locations across the site, as well as at the entrance to the site.	Contract term	Adequate in the opinion of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification. Rössing Uranium's Environmental Officer and Independent Environmental Auditor reports	Contractor's Environmental Officer
48			Contractor's OHSEC Policy to be displayed prominently onsite where staff may congregate, as well as at the entrance to the site.	Contract term	Adequate in the opinion of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification. Rössing Uranium's Environmental Officer and Independent Environmental Auditor reports	Contractor's Environmental Officer
49			Rössing Foundation's community health and safety programme and the HIV/AIDS awareness programme to be extended to cover Contractor's Staff.	*Ad hoc*	All Contractor's staff participate in programme	Project Requirement	Attendance register	Rössing Uranium's Environmental Officer
50		Punitive measures and incentives for Contractor's staff	Contractor to be encouraged to adopt a disciplinary system to address common, minor OHSEC misdemeanours of individual staff, such as littering, not using ablution facilities and eating areas, etc.	*Ad hoc*	Reduction in the number of offences over time	Project Requirement	A reduction in the number of fines issued per month, Contractor's Environmental Officer 's reports	Contractor/ Contractor's Environmental Officer
51			Contractor to be encouraged to introduce a competition amongst teams and a monthly award for the best OHSEC performance.	Monthly	Incentive scheme adopted	Project Requirement	Contractor's Environmental Officer and Rössing Uranium's Environmental Officer reports	Contractor's Environmental Officer
52	Road safety and traffic control	To reduce the OHSEC impacts associated with increase of traffic on site roads non-site and public roads	All site roads shall be equipped with appropriate warning and information signage.	Contract term	Adequate in the opinion of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor. Meets with industry norms and standards	C3 - Vehicles and Driving	Rössing Uranium's Environmental Officer and Independent Environmental Auditor reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
53			The road(s) should be at least 5 m wide and made of either stone or crushed aggregate or selected hard-core (crushed rock, broken bricks or concrete) delivered to the site as part of the waste input.	Contract term	Adequate in the opinion of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor. Meets with industry norms and standards	Project Requirement	Rössing Uranium's Environmental Officer and Independent Environmental Auditor reports	Contractor
54			To prevent unauthorised access, a security fence with a lockable gate must be erected around the operating area of the site, and general mine security staff to be aware of the need to secure the site.	Contract term	Adequate in the opinion of the Rössing Uranium's Environmental Officer and Independent Environmental Auditor. Meets with industry norms and standards	Project Requirement	Rössing Uranium's Environmental Officer and Independent Environmental Auditor reports	Contractor
55			The movement of all construction vehicles and equipment including suppliers shall be controlled so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic, are routed, and operated in a manner that minimises disruption to other users and that all relevant laws are complied with.	Contract term	No public complaints or incidents as a result, or any interference with key mine production traffic.	C3 - Vehicles and Driving; JK65/PRD/007~ Transport of Contaminated Items	Public complaints register, Rössing Uranium's Environmental Officer and Contractor's Environmental Officer reports	Contractor
56			Vehicle and plant operators to have undergone the necessary medical and competency evaluations and be in possession of the required licences.	*Ad hoc*	Without unwarranted exceptions	JH50/COP/024~ Induction C3 - Vehicles and Driving; B7 - OH Standards - Fitness for work;	Health and safety register	Contractor
57			Speed limit on gravel roads for heavy equipment shall be restricted to 15 km/h. Light traffic shall be restricted to 40 km/h and 60 km/h on the tailings and other mine roads, respectively.	Contract term	Without unwarranted exceptions, spot checks undertaken monthly or as required	C3 - Vehicles and Driving;	Distance vs time observations	Contractor / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer
58			All gravel roads under the Contractor's control shall be treated to reduce the fugitive dust losses as a result of vehicle entrainment.	Contract term. Dust suppression continually modified to suite climatic conditions	Fallout dust levels remain within specified tolerances	C3 - Vehicles and Driving; B10 - OH Standards - Occupational exposure limits	Fallout dust measurements. Data submitted as part of Contractor's weekly submission	Contractor
59			Vehicles shall not be overloaded or used in a manner or for a task for which they are not suited or intended.	Contract term	Without unwarranted exceptions	C3 - Vehicles and Driving	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observations	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
60			Plant and materials shall be appropriately secured to ensure safe passage between destinations. Loads that pose a risk of dust generation or spillage during transit, including but not limited to sand, stone chip, fine vegetation, refuse, paper and cement, shall have appropriate cover. The Contractor shall be held responsible for any clean-up resulting from the failure by his employees or suppliers to secure transported plant and materials properly.	Contract term	Without unwarranted exceptions. No public complaints	C3 - Vehicles and Driving	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observations.	Contractor
61			All construction equipment shall be equipped with a fire extinguisher.	Contract term, monthly checks on fire extinguisher service validity certificates	Without unwarranted exceptions	C3 - Vehicles and Driving	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observation / physical verification	Contractor
62			All construction equipment shall be equipped with an audible reverse siren.	Contract term	Without unwarranted exceptions	C3 - Vehicles and Driving	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observation / physical verification	Contractor
63			In the event that construction work may interfere with site or public traffic, suitable warning signs shall be erected and points-men shall be posted to direct the traffic accordingly. If required, traffic diversions and other traffic flow control mechanisms must be established.	*Ad hoc*	Without unwarranted exceptions and adequate in the opinion of the relevant health and safety personal and industry norms and standards	Project Requirement	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observation / physical verification	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
64			The road network must be kept to the minimum required to undertake the works, all roads must be clearly demarcated to prevent vehicles departing the roadways and causing unnecessary damages and increasing construction footprint.	*Ad hoc*	Without unwarranted exceptions and adequate in the opinion of the relevant health and safety personal and industry norms and standards	Project Requirement	Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor observation / physical verification	Contractor
65	Potentially hazardous materials	Appropriate storage, use and handling of hydrocarbons	The following method statements are to be compiled by the Contractor and reviewed and approved by the Project Management Team:	Within 14 days of arrival on site and before the commencement of construction of these items	No building before approval	Project Requirement	Rössing Uranium's Environmental Officer reports and paper trail	Contractor / Contractor's Environmental Officer
66			*Location and layout of the construction camp, including hazardous material and fuel storage areas;*			JA50/PRC/001~ Purchasing of chemicals E9 - Environment Standard - Land-Use Stewardship; JE50/WMP/002~ Disposal and re-use of hydrocarbons		
67			*Location and structure of the fuel storage area, including the type and volume of storage container and the design and capacity of the bund, and procedures for the filling and dispensing of fuel both at the fuel storage area and on site;*			Project Requirement		
68			*Solid waste (refuse) control and removal of waste from the site, including the number, type and location of rubbish bins, the manner and frequency with which the waste will be removed from site and a description of the identified disposal site; and*			JA50/PRC/001~ Purchasing of chemicals E5 - Environment Standard - Hazardous Material and Contamination Control; E7 - Environment Standard - Non-Mineral Waste Management; JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/012~ Disposal of oil and diesel filters JE50/WMP/002~ Disposal and re-use of hydrocarbons JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/003~ Disposal of Contaminated Items		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
69			*Emergency procedures for spillages of hazardous substances.*			JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management JH50/COP/013~ Storage of Flammable & Explosive Material JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances B4 - OH Standards - Hazardous substances; JA75/MSP/004~ Record-keeping Procedure E5 - Environment Standard - Hazardous Material and Contamination Control; JK65/PRD/007~ Transport of Contaminated Items JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage		
70			Diesel shall be stored in appropriate storage tanks or in bowsers. The tanks/bowsers shall be situated on a smooth impermeable surface with a permanent bund. The impermeable lining shall extend to the crest of the bund and the volume inside the bund shall be 130% of the total capacity of all the storage tanks/ bowsers. The floor of the bund shall be sloped, draining to an oil separator.	Contract term	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
71			In the event that any hydrocarbon-based compound is dispensed from drums, the proper dispensing equipment shall be used, and the drum shall not be tipped in order to dispense fuel. The dispensing mechanism of the hydrocarbon storage drum shall be stored in a waterproof container when not in use.	Contract term / daily	Without unwarranted exceptions. Spills are kept to a minimum	JH50/COP/013~ Storage of Flammable & Explosive Material	Physical verification and routine OHSEC monitoring and audit reports	Contractor
72			Unauthorised access into the fuel storage area shall be prevented by way of fencing and lockable gates.	Contract term / daily	Without unwarranted exceptions	JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/026~ Permit to Work and Clearances System JH50/COP/017~ Barricading and Demarcation JH50/COP/013~ Storage of Flammable & Explosive Material	Physical verification and routine OHSEC monitoring and audit reports	Contractor
73			The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown and, where possible, be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 1000 ℓ of hydrocarbon liquid spill. This material must be approved by the Project Manager prior to commencement of construction.	Contract term / weekly	Without unwarranted exceptions	JE50/WMP/002~ Disposal and re-use of hydrocarbons JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge	Physical verification and routine OHSEC monitoring and audit reports	Contractor
74			The Contractor shall ensure that engine oil, hydraulic oil, shutter oil, lubricants, and curing compound containers that are in use are stored within a bunded area consisting of a smooth impermeable base with an earth bund. The fuel bund may be used for this purpose as long as the capacity of the bund remains 130% of all of the fuel storage tanks/bowsers it contains.	Contract term / daily	Without unwarranted exceptions	JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/017~ Barricading and Demarcation	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
75			The unopened storage containers shall be inspected regularly to ensure that no leakage occurs.	*Ad hoc* /daily	Meets specifications, no evidence of leaks or spills	JH50/COP/013~ Storage of Flammable & Explosive Material	Physical verification and routine OHSEC monitoring and audit reports	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
76			Oil/curing compound shall be used in moderation and shall be applied under controlled conditions using appropriate equipment. The Contractor shall take all reasonable precautions to prevent accidental and incidental spillage during the application of these compounds.	Contract term / daily	No or limited spillages	JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Physical verification and routine OHSEC monitoring and audit reports	Contractor
77			In the event of oil/curing compound spill, the source of the spillage shall be isolated, and the spillage contained. The Contractor shall be required to clean up the spill, either by removing the contaminated soil or by the application of absorbent material in the event of a larger spill. Treatment and remediation of the spill area shall be undertaken.	Contract term /daily	Without unwarranted exceptions	JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Physical verification and routine OHSEC monitoring and audit reports	Contractor
78			Oil from drip trays and the oil separator, used oil and any other source of liquid hydrocarbon waste shall be removed on a regular basis to an oil-recycling centre.	Contract term / weekly	Without unwarranted exceptions	JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/012~ Disposal of oil and diesel filters JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/002~ Disposal and re-use of hydrocarbons	Physical verification and routine OHSEC monitoring and audit reports	Contractor
79			The fuel storage area shall be equipped with the appropriate hazard and warning signage, no smoking or naked flame signs and will be equipped with the necessary fire fighting equipment.	Contract term / weekly	Without unwarranted exceptions	JH50/COP/013~ Storage of Flammable & Explosive Material	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
80		Appropriate storage, use and handling of paints and solvents	The Contractor shall ensure that the use of oil based paints, chemical additives, cleaners and other chemicals is strictly controlled, and that no contamination of the environment, particularly of drainage lines, occurs as a result of their use.	Contract term /daily	Without unwarranted exceptions	JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E7 - Environment Standard - Non-Mineral Waste Management; E5 - Environment Standard - Hazardous Material and Contamination Control; JA50/PRC/001~ Purchasing of chemicals B4 - OH Standards - Hazardous substances; B1 - OH Standards - Particulate and gas or vapour exposures; JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation JH50/COP/016~ Colour Coding	Physical verification and routine OHSEC monitoring and audit reports	Contractor
81		Appropriate storage, use, and handling of herbicides and pesticides.	Storage of pesticides and other poisonous substances has been specified or approved by the Engineer, they shall be stored, handled, and applied with due regard to their potential harmful effects and in adherence with the approved Method Statement.	Contract term /daily	Without unwarranted exceptions	JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E7 - Environment Standard - Non-Mineral Waste Management; E5 - Environment Standard - Hazardous Material and Contamination Control; JA50/PRC/001~ Purchasing of chemicals B4 - OH Standards - Hazardous substances; B1 - OH Standards - Particulate and gas or vapour exposures; JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation JH50/COP/016~ Colour Coding	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
82			The Contractor shall strictly adhere to the manufacturer's specifications regarding applications rates, storage and safety precautions.	Contract term / *ad hoc*	Without unwarranted exceptions	JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E7 - Environment Standard - Non-Mineral Waste Management; E5 - Environment Standard - Hazardous Material and Contamination Control; JA50/PRC/001~ Purchasing of chemicals B4 - OH Standards - Hazardous substances; B1 - OH Standards - Particulate and gas or vapour exposures; JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation JH50/COP/016~ Colour Coding	Physical verification and routine OHSEC monitoring and audit reports	Contractor
83			Poisonous substances shall not be used within 50m of any drainage line, without prior arrangement with Rössing Uranium's HSEQ Department.	Contract term /*ad hoc*	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
84			The Contractor shall submit a method statement relating to the use of herbicides, pesticides and other poisonous substances, including means of storage.	Before bringing such materials onto site	Without unwarranted exceptions	JK65/PRD/007~ Transport of Contaminated Items JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E7 - Environment Standard - Non-Mineral Waste Management; E5 - Environment Standard - Hazardous Material and Contamination Control; JA50/PRC/001~ Purchasing of chemicals B4 - OH Standards - Hazardous substances; B1 - OH Standards - Particulate and gas or vapour exposures; JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation JH50/COP/016~ Colour Coding	Physical verification and routine OHSEC monitoring and audit reports	Contractor
85	Site workshop, wash bay, fuel stores and oil separator	Reduce the OHSEC impacts associated with the design and operation of a site workshop and associated facilities arising from the maintenance and operation of site plant and equipment	The workshop shall have a smooth impermeable floor which shall be bunded and sloped towards a collection drain or sump, connected to an oil separator to contain any spillages.	Contract term/at commencement	Without unwarranted exceptions	SEMP Requirement; JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/002~ Disposal and re-use of hydrocarbons	Physical verification and routine OHSEC monitoring and audit reports	Contractor
86			The workshop shall be equipped with a wash bay, enclosed to prevent the loss of hydrocarbons and soap into the surrounding environment. The floor will be bunded and sloped and all waste water shall be fed through an oil separator before collection for disposal.	Contract term / at commencement / daily or *ad hoc* inspections	Without unwarranted exceptions	SEMP Requirement; JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/002~ Disposal and re-use of hydrocarbons	Physical verification and routine OHSEC monitoring and audit reports	Contractor
87			The refuelling deck is to have a collection sump linked to an oil separator.	Contract term / daily inspection	Without unwarranted exceptions	SEMP Requirement; JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/002~ Disposal and re-use of hydrocarbons JH50/COP/013~ Storage of Flammable & Explosive Material	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
88			The fuel storage area shall be equipped with a bund area equalling 130% the total volume of fuel stored in the area.	Contract term / once off verification	Without unwarranted exceptions	JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/017~ Barricading and Demarcation JE50/WMP/002~ Disposal and re-use of hydrocarbons	Physical verification and routine OHSEC monitoring and audit reports	Contractor
89			The fuel storage area shall be located in a portion of the construction camp where it is unlikely to pose a significant risk in terms of water pollution or traffic safety.	Contract term /daily	In the opinion of the Rössing Uranium's Environmental Officer, Contractor's Environmental Officer and Independent Environmental Auditor	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/025~ Safety Training Courses JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/017~ Barricading and Demarcation B4 - OH Standards - Hazardous substances; JE50/SOP/001~ Oil Separation Plant Operation JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management E5 - Environment Standard - Hazardous Material and Contamination Control; JE50/WMP/002~ Disposal and re-use of JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge	Physical verification and routine OHSEC monitoring and audit reports Contractor Method statement	Contractor
90			The workshop area shall be equipped with a hydrocarbon spill kit capable of treating a 1000ℓ spill containing the necessary spark proof shovels, personal protective equipment, and sufficient collection vessels.	Contract term /daily	Without unwarranted exceptions	SEMP Requirement; JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
91			The workshop shall have a sealed-bottom waste storage vessel for hydrocarbon contaminated items such as filters, oily rags, grease drums, contaminated soil and absorbent material from collected spills, etc.	Contract term /daily	Without unwarranted exceptions	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/017~ Barricading and Demarcation B4 - OH Standards - Hazardous substances; JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management E5 - Environment Standard - Hazardous Material and Contamination Control; JE50/WMP/002~ Disposal and re-use of hydrocarbons JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/SOP/001~ Oil Separation Plant Operation	Physical verification and routine OHSEC monitoring and audit reports	Contractor
92			The workshop and fuel storage area shall be equipped with adequate fire fighting equipment, suitable for the type and worst-case-scenario fire that may occur there.	Contract term / weekly	Without unwarranted exceptions	JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/017~ Barricading and Demarcation	Physical verification and routine OHSEC monitoring and audit reports	Contractor
93			The fuel storage area shall be fenced off and locked to ensure that no unauthorised entry can be gained. Appropriate safety and hazard warning signage shall be prominently displayed at the fuel storage area.	Contract term /daily	Without unwarranted exceptions	JH50/COP/013~ Storage of Flammable & Explosive Material JH50/COP/017~ Barricading and Demarcation	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
94		Verification of adherence to specified requirements	The workshop, fuel storage area, wash bay, and oil separator shall be routinely inspected to ensure compliance with the specified requirements.	Contract term /daily	Without unwarranted exceptions	JH50/COP/017~ Barricading and Demarcation JH50/COP/023~ 28.5(b) Appointment of Responsible persons JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management JH50/COP/013~ Storage of Flammable & Explosive Material B4 - OH Standards - Hazardous substances; C2 - Electrical Safety; C3 - Vehicles and Driving; JA40/MSP/003~ Document Control Procedure JA75/MSP/004~ Record-keeping Procedure JE65/OWM/004~ Water Quality Monitoring E7 - Environment Standard - Non-Mineral Waste Management; E5 -Environment Standard - Hazardous Material and Contamination Control; JE50/WMP/002~ Disposal and re-use of hydrocarbons JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JE50/WMP/012~ Disposal of oil and diesel filters JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/SOP/001~ Oil Separation Plant Operation	Physical verification and routine OHSEC monitoring and audit reports	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer/ Independent Environmental Auditor
95	Vehicle, plant and machine maintenance	Reduce the OHSEC risk associated with equipment or plant malfunction and potential environmental damage	All vehicles and equipment shall be kept in good working order to ensure efficiency and safety and minimise pollution and emissions.	Contract term /daily / *ad hoc*	Without unwarranted exceptions	C3 - Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Physical verification and routine OHSEC monitoring and audit reports	Contractor
96			All plant and equipment to be inspected daily by the operator to ensure fitness, all defects to be reported and repaired immediately. Leaking equipment shall be repaired immediately or removed from site.	Contract term /daily	Without unwarranted exceptions	C3 - Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
97			Where practical, all maintenance of equipment and vehicles on site shall be performed in the workshop.	Contract term /daily	Except when emergency maintenance is required in field	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
98			If it is necessary to do maintenance outside of the workshop area, the Contractor shall obtain the approval of the Rössing Uranium's Environmental Officer prior to commencing activities. The Contractor shall ensure that in his workshop and at other equipment maintenance facilities, including those areas where, after obtaining the Rössing Uranium's Environmental Officer's approval, the Contractor carries out emergency equipment maintenance, there is no contamination of the soil or vegetation.	Contract term /daily	Without unwarranted exceptions	JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor
99			When servicing equipment on site, portable drip trays shall be used to collect the waste oil and other lubricants. Drip trays shall also be provided in construction areas for stationary equipment (such as compressors) and for parked mobile plant (such as excavators, loaders and cranes).	Contract term /daily	Without unwarranted exceptions	JE50/WMP/014~ Bioremediation of hydro-carbon contaminated soil and sludge JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard - Hazardous Material and Contamination Control JE50/WMP/002~ Disposal and re-use of hydrocarbons E7 - Environment Standard - Non-Mineral Waste Management; JE50/WMP/012~ Disposal of oil and diesel filters	Physical verification and routine OHSEC monitoring and audit reports	Contractor
100			Drip trays shall be inspected and emptied daily. Drip trays shall be closely monitored during rain events to ensure that they do not overflow.	Contract term /daily	Without unwarranted exceptions	JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/002~ Disposal and re-use of hydrocarbons E5 - Environment Standard - Hazardous Material and Contamination Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor
101			Oil from the drip trays shall be stored in externally clean drums in a bunded area as required for fuel storage at the workshop area.	Contract term /daily	Without unwarranted exceptions	JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/002~ Disposal and re-use of hydrocarbons E5 - Environment Standard - Hazardous Material and Contamination Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor
102			The washing of equipment outside of the wash bay facility located near the workshop shall be restricted to urgent or preventative maintenance requirements only and is subject to the Rössing Uranium's Environmental Officer's approval.	Contract term /*ad hoc*	Without unwarranted exceptions	JE50/WMP/015~ Disposal of oil trap residue to oil separation tank JE50/WMP/002~ Disposal and re-use of hydrocarbons E5 - Environment Standard - Hazardous Material and Contamination Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
103	Establishment and operation of a concrete batching plant, concrete mixing, pouring and associated activities (IF REQUIRED)	Limiting OHSEC impacts associated with the position and layout of the concrete batching plant	The siting of batching plants shall take cognisance of the requirements of this Specification and shall be subject to the Project Manager's approval of a batch plant layout and operations method statement.	Once off	In the opinion of the Rössing Uranium's Environmental Officer and Project manager through review and approval of the method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor / Contractor's Environmental Officer
104			Batching plant shall be situated a safe distance away from the Khan River or major drainage channels and away from depressions that may be subject to flooding.	Once off	Without unwarranted exceptions	JH50/COP/026~ Permit to Work and Clearances System JH50/COP/017~ Barricading and Demarcation JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management E5 - Environment Standard - Hazardous Material and Contamination Control; E7 - Environment Standard - Non-Mineral Waste Management; E10 - Environment Standard - Water Use and Quality Control; JA05/COP/003~ Environmental Management System Code of Practice JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification and routine OHSEC monitoring and audit reports	Contractor
105			The siting of the batching plant shall be such to reduce the extent of earthworks required to achieve a suitably level platform.	Once off	Without unwarranted exceptions	E9 - Environment Standard - Land-Use Stewardship; JA05/COP/003~ Environmental Management System Code of Practice	Physical verification and routine OHSEC monitoring and audit reports	Contractor
106		Limiting potential environmental pollution by concrete, sand, aggregates, additives and associated chemicals	No batching activities shall occur directly on unprotected ground. Batching plants shall be located on a smooth impermeable surface (concrete or 250 µm plastic covered with 5 cm of sand).	Contract term /daily	Without unwarranted exceptions	E5 - Environment Standard - Hazardous Material and Contamination Control; E7 - Environment Standard - Non-Mineral Waste Management; E10 - Environment Standard - Water Use and Quality Control; JE50/MSP/001~ Water Quality Management	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
107			All wastewater resulting from batching of concrete shall be disposed of in a purpose built evaporation pond. At demobilisation, the solids shall be retrieved and disposed of at the tailings facility. No waste water shall be discharged directly into the environment.	Contract term /daily	Without unwarranted exceptions	E5 - Environment Standard - Hazardous Material and Contamination Control; E7 - Environment Standard - Non-Mineral Waste Management; E10 - Environment Standard - Water Use and Quality Control; JE50/MSP/001~ Water Quality Management JE65/OWM/004~ Water Quality Monitoring JE50/OWM/003~ Water Recycling and Re-Use	Physical verification and routine OHSEC monitoring and audit reports	Contractor
108			Empty cement bags shall be stored in weather-proof containers to prevent windblown cement dust and water contamination. Empty cement bags shall be disposed of on a regular basis via the solid waste management system, and shall not be used for any other purpose. Unused cement bags shall be stored so as not to be affected by rain or runoff events.	Contract term /daily	Without unwarranted exceptions	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JA05/COP/003~ Environmental Management System Code of Practice E7 - Environment Standard - Non-Mineral Waste Management	Physical verification and routine OHSEC monitoring and audit reports	Contractor
109			The Contractor shall ensure that sand, aggregate, cement or additives used during the mixing process are contained and covered to prevent contamination of the surrounding environment.	Contract term /daily	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
110			Sand stockpiles shall be protected from the dispersive effects of the wind, causing dust, by watering of stockpiles or use of wind suitable wind barriers.	Contract term / *ad hoc*	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
111			The Contractor shall take all reasonable measures to prevent the spillage of cement/concrete during batching and construction operations. During pouring, the soil surface shall be protected using plastic and all visible remains of concrete shall be physically removed on completion of the cement/ concrete pour and appropriately disposed of.	Contract term /daily	Without unwarranted exceptions	E7 - Environment Standard - Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JA05/COP/003~ Environmental Management System Code of Practice JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items	Physical verification and routine OHSEC monitoring and audit reports	Contractor
112			All spoiled and excess aggregate/cement/concrete shall be removed and disposed of via the solid waste management system, should re-use not be possible.	Contract term / *ad hoc*	Without unwarranted exceptions	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification and routine OHSEC monitoring and audit reports	Contractor
113			Cement trucks and cement mixers shall not discharge any concrete wash directly onto the ground. The Contractor shall submit a method statement for the consideration and approval of the Project Management Team.	Contract term /daily	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
114			All concrete additives, curing compounds, shutter oils and other additives used in the process shall be stored in weather proof areas at the batching plant. Containers or drums shall be stored inside a bunded area and any leaks and spills shall be cleared immediately.	Contract term /daily	Without unwarranted exceptions	E7 - Environment Standard - Non-Mineral Waste Management; JA05/COP/003~ Environmental Management System Code of Practice JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items B4 - OH Standards - Hazardous substances; JA50/PRC/001~ Purchasing of chemicals E5 - Environment Standard - Hazardous Material and Contamination Control; JE50/WMP/002~ Disposal and re-use of hydrocarbons	Physical verification and routine OHSEC monitoring and audit reports	Contractor
115	Dust Control	To maintain a safe working environment, minimise nuisance for surrounding residential areas, prevent damage to the natural vegetation of the area and protect topsoil	Contractor to compile and submit a method statement regarding the control of dust within the designated construction site.	Contract commencement	Without unwarranted exceptions	B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits	Verify paperwork	Contractor / Contractor's Environmental Officer
116			There shall be sufficient water tankers of adequate capacity to enable the dampening of all working areas and access/haul roads as frequently as required. During high wind conditions, the Contractor shall comply with the Project Manager's instructions regarding additional dust-damping measures.	Contract term / hourly or as dictated by climatic conditions	Dust levels are maintained within the standard	B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits	Physical verification and routine OHSEC monitoring and audit reports	Contractor
117			Dust suppression shall take cognisance of water efficiency. The Contractor shall make use of an environmentally friendly dust suppression / wetting agent (e.g. Dust-a-side® or Dustex®) to increase the efficacy of water sprayed for dust suppression purposes and thereby allow for more efficient use.	Contract term /daily	Reduce water usage whilst maintaining an acceptable level of suppression	B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JE50/OWM/003~ Water Recycling and Re-Use JE50/MSP/002~ Freshwater Supply Management	Physical verification and routine OHSEC monitoring and audit reports	Contractor
118			Where possible, the Contractor shall use low sediment content contaminated water for the purposes of dust suppression. The source of water used for dust suppression spraying shall be negotiated with Rössing.	Contract term /daily	Without unwarranted exceptions	B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JE50/OWM/003~ Water Recycling and Re-Use JE50/MSP/002~ Freshwater Supply Management	Physical verification and routine OHSEC monitoring and audit reports and Contractor's weekly submissions	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
119		Verification of adherence to specified requirements in terms of dust prevention and control	Dust monitoring by means of fallout dust collectors shall be used to assess the Contractor's dust control programme performance. Where the standards are exceeded, additional measures will be instituted.	Weekly	In line with Rössing current Standard	B1 - OH Standards - Particulate and gas or vapour exposures; B10 - OH Standards - Occupational exposure limits; JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting JA75/MSP/004~ Record-keeping Procedure JA05/COP/003~ Environmental Management System Code of Practice	Fall Out dust meter results in Contractor's submissions and data captured by Rössing Uranium's existing dust meters	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
120	Vehicle Emissions	Reduce unnecessary greenhouse gas emissions by poorly maintained or malfunctioning plant and equipment	All vehicles and equipment shall be kept in good working order and serviced regularly.	Contract term/daily	Without unwarranted exceptions	C3 - Vehicles and Driving; E2 - Environment Standard - Air Quality Control; E4 - Environment Standard - Greenhouse Gas Emissions	Physical verification and routine OHSEC monitoring and audit reports	Contractor
121		Verification of adherence to specified requirements in terms of dust prevention and control	Vehicles noticeably emitting excessive fumes will not be permitted to continue working on site.	Contract term/*ad hoc*	Without unwarranted exceptions	C3 - Vehicles and Driving	Physical verification and routine OHSEC monitoring and audit reports	Contractor
122	Noise	Noise prevention and reduction	Appropriate directional and intensity settings are to be maintained on all hooters and sirens, and the Contractor shall provide and use suitable and effective silencing devices for pneumatic tools and other plant equipment to reduce noise levels associated with his activities.	Contract term/daily/*ad hoc*	Without unwarranted exceptions	C3 - Vehicles and Driving; JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/031~ Personal Protective Equipment JH50/COP/031~ Personal Protective Equipment B10 - OH Standards - Occupational exposure limits; B2 - OH Standards - Hearing conservation; JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting JA40/MSP/003~ Document Control Procedure JA75/MSP/004~ Record-keeping Procedure JA45/MSP/007~ External Communications/Complaints JK65/PRC/003~ Area Noise Survey E6 - Environment Standard - Noise and Vibration Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
123			The Contractor shall not use sound amplification equipment on site other than in emergencies.	Contract term/daily/*ad hoc*	Without unwarranted exceptions	B10 - OH Standards - Occupational exposure limits; B2 - OH Standards - Hearing conservation; JA65/MSP/001~ Monitoring and Measurement JA65/MSP/001~ Monitoring and Measurement JA45/MSP/007~ External Communications/Complaints JK65/PRC/003~ Area Noise Survey E6 - Environment Standard - Noise and Vibration Control	Physical verification and routine OHSEC monitoring and audit reports	Contractor
124			The Contractor shall ensure that OHSEC awareness and training for all employees includes the need to minimise noise.	Contract term/daily	Without unwarranted exceptions	JH50/COP/024~ Induction JA30/MSP/013~ Identification of training needs and training methods	OHSEC course syllabus contained in approved method statement	Contractor
125		Protection of workers against the harmful effects of excessive noise	The Contractor shall provide suitable hearing protection to all staff and others entering areas with high noise levels. Zones of risk shall be clearly identified with warning signs.	Contract term/daily	Without unwarranted exceptions	JH50/COP/025~ Safety Training Courses JH50/COP/031~ Personal Protective Equipment JA65/MSP/001~ Monitoring and Measurement JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/031~ Personal Protective Equipment	Physical verification and routine OHSEC monitoring and audit reports	Contractor
126		Verification of adherence to specified requirements in terms of noise prevention and control	Noise monitoring shall occur at weekly intervals for health and safety within the works areas as well as for environmental purposes, near the demarcated site boundaries.	Contract term/weekly	In line with Rössing current Standard	JA65/MSP/001~ Monitoring and Measurement B2 - OH Standards - Hearing conservation; B10 - OH Standards - Occupational exposure limits; JA45/MSP/002~ Communication and Reporting JA75/MSP/004~ Record-keeping Procedure E6 - Environment Standard - Noise and Vibration Control; JK65/PRC/003~ Area Noise Survey	Contractor's Environmental Officer reports and Contractor's submissions	Contractor
127			Where possible, material stockpiles should be placed so as to protect site boundaries from noise of individual operations. If a stockpile is constructed, it should be at a position and of such a height as to effectively act as a barrier to site noise at any sensitive area, if the line of sight calculations show this to be practicable. In particular, the erection of suitable earth berms around the permanent machinery can significantly reduce the noise by up to 15 dB.	Contract term /*ad hoc*	All spoil or semi-permanent stockpiles place in locations where they serve acoustic dampening benefit.	Project requirement	Verify paperwork	Contractor's Environmental Officer , Rössing Uranium's Environmental Officer

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
128			Standardised noise measurements should be carried out on individual equipment at the delivery to site to construct a reference data-base, and regular checks carried out to ensure that equipment is not deteriorating and to detect increases which could lead to an increase in the noise impact over time and increased complaints.	Contract term /*ad hoc*	All permanent plant arriving on site must be measured on commissioning and records kept	E6 - Environment Standard - Noise and Vibration Control; JK65/PRC/003~ Area Noise Survey	Physical verification	Contractor's Environmental Officer , Rössing Uranium's Environmental Officer
129	Lighting	Reduce the visual intrusion caused by excessive lighting	Lighting installed on the site does not interfere with road traffic or cause a reasonably avoidable disturbance to indigenous fauna, surrounding communities or other users of the area.	Contract term/*ad hoc*	In the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
130			Floodlighting or up-lighting of structures or large areas shall not be permitted.	Contract term/*ad hoc*	Excepting with project manager's consent where up lighting may be required to ensure safety of specific tasks	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports	Contractor
131			Lighting shall be limited to the minimum required to ensure that work can be undertaken safely.	Contract term/daily	Minimum requirements of the applicable health and safety legislation	C4 – Working at Heights	Physical verification and health and safety officers.	Contractor
132	Site demarcation and establishment of the Contractor's camp	Ensuring adequate planning is given to the layout and functioning of site establishment areas	The Contractor or site camp management contractor shall inform the Project Manager of the intended actions and programme for site establishment and of the proposed location of the construction camp/s and provide him with a plan showing the layout of the construction camp, including the positions of all buildings, stockpile and lay down areas, vehicle wash and service areas, fuel storage areas, batching areas and other infrastructure.	Contract commencement	Without unwarranted exceptions and as per approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports and method statement	Contractor
133			The site layout shall be planned to facilitate ready access for deliveries, facilitate future works and to curtail any disturbance or security implications for neighbours and the Rössing Mine operation. The final site camp layout shall be subject to the Project Manager's approval, which shall not be unreasonably withheld.	Contract commencement	Without unwarranted exceptions and as per approved method statement	JA05/COP/003~ Environmental Management System Code of Practice E9 - Environment Standard - Land-Use Stewardship	Physical verification and routine OHSEC monitoring and audit reports and method statement	Contractor
134		Site demarcation to limit the spatial extent over which the Contractor will have influence and the protection of environmentally significant areas	All areas under the Contractor's control should have as small a footprint as possible, after making necessary provisions for safety and social requirements and taking cognisance to avoid previously undisturbed areas.	Contract commencement	As per approved method statement	JA05/COP/003~ Environmental Management System Code of Practice E9 - Environment Standard - Land-Use Stewardship	Physical verification and routine OHSEC monitoring and audit reports and method statement	Contractor
135			Site demarcation fences shall be installed before any construction activity will be allowed to commence. All work areas need to be clearly demarcated and sign-posted. Any movements outside these marked areas will require special permission involving Rössing Uranium's environmental staff. Further, waste and pollution management, water, and energy usage will need to follow established procedures.	Contract commencement	Without unwarranted exceptions	JH50/COP/017~ Barricading and Demarcation C3 - Vehicles and Driving	Physical verification and routine OHSEC monitoring and audit reports	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
136			The Contractor shall maintain in good order all demarcation fencing and barriers for the duration of construction activities, or as otherwise instructed by the Project Manager. This shall entail fencing of the construction site, within the Mine premises as well as fencing of construction camp areas.	Contract term	According to technical specifications and approved method statement	JH50/COP/017~ Barricading and Demarcation	Physical verification Physical verification and routine OHSEC monitoring and audit reports	Contractor
137			Unless otherwise agreed to by the Project Manager, the Contractor shall ensure that all activities are restricted to within the defined Working Area. The areas outside of the defined Working Area as well as any other areas identified by the Project Manager in the Specification shall be regarded as exclusion areas. Insofar as one has the authority, the Contractor shall ensure that no unauthorised entry, stockpiling, dumping, or storage of equipment, plant, or materials shall be allowed within the exclusion areas.	Contract term/daily	Without unwarranted exceptions	JH50/COP/017~ Barricading and Demarcation JH50/COP/024~ Induction JA45/MSP/007~ External Communications/Complaints JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances JA05/COP/003~ Environmental Management System Code of Practice JH50/COP/026~ Permit to Work and Clearances System	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
138			The Project Manager with the assistance of the Rössing Uranium's Environmental Officer may also identify sensitive or special features inside the Working Area as exclusion areas.	Contract commencement/*ad hoc*	As per approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Rössing Uranium's Environmental Officer / Project Manager
139		Limit the OHSEC impact associated with the establishment of temporary services to the Contractor's camp	Temporary services, including pipelines, power lines and telephone lines, shall be located in a manner which will cause the least disturbance to the environment. In particular, care shall be taken to ensure that the route alignment for temporary services avoids identified sensitive areas. Where possible, the Contractor shall ensure that service infrastructure is accommodated within the same trench.	Contract commencement/*ad hoc*	As per approved method statement	Project Requirement	Physical verification, approved method statement and routine OHSEC monitoring and audit reports.	Project Manager and Contractor
140		Limit the OHSEC impact associated with the establishment of site structures in the Contractor's camp	All site structures shall be of a temporary nature and shall be removed at the end of the contract. All site establishment components (as well as equipment) shall be located within previously disturbed areas, where possible, and shall be positioned to limit visual intrusion on neighbours and to limit the extent of the area disturbed.	Contract term/*ad hoc*	Limited disturbance of Contractor's camp site, as per approved method statement	JH50/COP/016~ Colour Coding C2 - Electrical Safety; E9 - Environment Standard - Land-Use Stewardship; JA05/COP/003~ Environmental Management System Code of Practice	Physical verification, approved method statement and routine OHSEC monitoring and audit reports.	Contractor and Project Manager
141			Where Contractor's camp is located within a vegetated zone, efforts to rescue and transplant key species should be undertaken.	Contract term/*ad hoc*	All shrubs within footprint area and topsoil removed to stockpile / transplant area.	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor, HSE department
142			The Contractor shall limit the number and extent of concrete slabs and other building foundations as far as practical.	Contract term/*ad hoc*	As per method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
143			The Contractor shall limit, as far as practical, the extent of earthworks required for the establishment of the camp area.	Contract term/daily/*ad hoc*	Limited disturbance in the opinion of the Project Manager, Contractor's Environmental Officer, Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
144		Reducing health and safety and security risks associated with unauthorised access to the construction site	The Contractor shall ensure that access to the site and associated infrastructure and equipment is controlled throughout the construction period.	Contract term/daily/*ad hoc*	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports and public complaints register	Contractor
145			The Contractor shall implement the necessary gates, booms, access control points, guard houses to ensure access control and security of the site is maintained.	Contract term / daily/	Without unwarranted exceptions or incident	JH50/COP/026~ Permit to Work and Clearances System JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
146			No person shall be allowed into the construction areas without having undergone the necessary OHSEC induction or being escorted by a senior staff member from the Contractor's staff.	Contract term / daily	Without unwarranted exceptions or incident	JH50/COP/026~ Permit to Work and Clearances System JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
147			All authorised site personal shall carry an identification card issued by the Contractor, and all authorised vehicles, equipment, and plant shall have an identification sticker.	Contract term / daily	Without unwarranted exceptions or incident	JH50/COP/026~ Permit to Work and Clearances System JH50/COP/031~ Personal Protective Equipment JH50/COP/024~ Induction JH50/COP/017~ Barricading and Demarcation	Physical verification as part of routine OHSEC monitoring and audit reports.	Contractor
148		Exercising control over the demolition of existing structures and the resulting waste	Clearing shall consist of the removal of all structures, scrap, and all other material prohibiting the execution of the Works, including the disposal of all resultant materials, subject to the requirements of this Specification and the Project Manager. Any existing structures located within the Working Area shall only be damaged or demolished and removed with the prior approval of the Project Manager.	Contract commencement / *ad hoc*	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports. Project Manager's site instructions	Contractor
149		Limit the OHSEC impact associated with the establishment of temporary	Only designated access roads shall be used to access the Working Area. The insertion of any additional roads will only be permitted with the approval of a method statement.	Contract term / *ad hoc*	Without unwarranted exceptions or incident and according to the approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
150		access roads	Maintenance of access and haul roads within the demarcated site shall be routinely undertaken for the contract duration. The maintenance includes ensuring the provision of adequate drainage and dust control. Damage to the existing access roads outside the Construction camp because of construction activities shall be repaired to the satisfaction of the Project Manager, using material similar to that used in the original construction of the infrastructure.	Contract term / daily / *ad hoc*	Without unwarranted exceptions or incident. No public complaints	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
151			Where new access roads are required, these shall be subject to prior approval of a method statement by the Project Management Team and shall be planned and constructed to ensure that as small an area as possible is disturbed (maximum width of 5 m, with splays where appropriate and required), that they avoid all exclusion areas and, as far as possible, that they follow the natural contours.	Contract term / *ad hoc*	Without unwarranted exceptions or incident. As per approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports. Approved method statement	Contractor
152			Adequate provision shall be made for parking areas to accommodate vehicles and plant and inspections shall be undertaken continuously to prevent parking of plant or vehicles outside of these designated areas.	Contract commencement / *ad hoc*	Without unwarranted exceptions or incident. As per approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
153			All temporary access roads, parking areas and turning-areas and staging platforms shall be returned to their original (i.e., pre-construction) condition at the end of the Contract, including ripping the disturbed area parallel with the contours to a depth of 300 mm and reshaping to match the surrounding topography.	Contract completion / *ad hoc*	Without unwarranted exceptions or incident. Returned to original condition	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
154			All vehicle turning areas shall be located within the Working Area and shall be subject to the prior approval of the Project Manager. The Contractor shall ensure that horse and trailer vehicles transporting plant and materials only turn within the designated turning areas.	Contract term / daily	Without unwarranted exceptions or incident. As per approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
155	Accommodation of site staff	Minimise the resident populace on Rössing Mine Licence Area	With the exception of the night watchmen, none of the Contractor's staff shall be accommodated on site overnight.	Contract term / daily	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
156	Erosion sedimentation control	Erosion sedimentation control	Take all reasonable measures to limit erosion and sedimentation due to the construction activities and shall include in the design of the site works measures to prevent such occurrences. The Works shall be undertaken in a phased manner, and development staged so that stripped areas are kept to a minimum. The Contractor shall ensure that the stabilisation of cleared areas is actively managed in order to prevent and control erosion.	Contract term / daily / *ad hoc*	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
157			Erosion shall not be allowed to develop on a large scale before repairs are affected and all erosion damage shall be repaired as soon as it has been detected. In this regard, any runnels or erosion channels that develop during the construction shall immediately be backfilled and compacted and the areas restored to a proper stable condition.	Contract term / *ad hoc*	Without unwarranted exceptions	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
158			The landscaping and rehabilitation of disturbed areas shall occur as soon as practically possible following the cessation of the work in a specific area. In this regard, the Contractor's Works Programme shall clearly indicate that the rehabilitation will immediately be executed, per phase, upon the completion of the works within a specific area. Traffic and movement over stabilised areas shall be restricted and controlled, and damage to stabilised area shall be repaired and maintained to the satisfaction of the Project Manager.	*Ad hoc*	Without unwarranted exceptions	JA75/MSP/004~ Record-keeping Procedure JE50/MSP/001~ Water Quality Management JA05/COP/003~ Environmental Management System Code of Practice E9 - Environment Standard - Land-Use Stewardship; JA65/MSP/001~ Monitoring and Measurement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
159			Topsoil and any other loose stockpiled material shall be stockpiled with consideration for the prevailing wind direction and, if required, additional windbreaks or other mechanisms to protect such material from dispersion by wind shall be instated at the request of the Project Manager.	Contract term / *ad hoc*	No visible dust leaving stockpiles	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
160	Stockpiling, storage and staging of inert construction materials	Minimise the potential negative OHSEC impacts arising from the stockpiling of various inert construction materials	All materials shall be stored within the demarcated construction camp or batching areas. Where this is not feasible, the Project Manager will identify additional sites for stockpiling within the Working Area. Where possible, material stockpiles should be placed so as to protect site boundaries from noise of individual operations. If a stockpile is constructed, it should be at a position and of such a height as to effectively act as a barrier to site noise at any sensitive area, if the line of sight calculations show this to be practicable. In particular, the erection of suitable earth berms around the permanent machinery can significantly reduce the noise by up to 15 dB.	Contract term / daily/	Without unwarranted exceptions or incident and as per approved method statement or Project Manager site instruction. All material to reside in permanent stockpile place to buffer noise during operational phase.	JH50/COP/017~ Barricading and Demarcation JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/024~ Induction	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
161			Soil, sand, and gravel stockpiles shall be convex in shape, shall be no higher than 2 m, and shall be located so as to cause minimal disturbance. Stockpiles shall be so placed as to occupy the minimum width compatible with the natural angle of repose of the material, and measures shall be taken to prevent the material from being spread over too wide a surface.	Contract term / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
162			Material shall be stockpiled with consideration for the prevailing wind directions and velocities and, if required, additional windbreaks or other mechanisms to protect such material from dispersion by wind shall be instated at the request of the Project Manager.	Contract term / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports. Dust monitoring data	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
163			The limits of the stockpiling or staging areas are to be demarcated and regular inspection shall occur to ensure that materials are being contained within the allocated areas. The Contractor excises control over such areas and not allow delivery drivers dictate the stockpiling layout.	Contract term / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor. All vehicle delivery drivers to be issued with rules on entering the site and the actions to be supervised	JH50/COP/017~ Barricading and Demarcation JH50/COP/023~ 28.5(b) Appointment of Responsible persons JH50/COP/024~ Induction JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
164			Stockpile areas shall be regularly inspected for appropriate housekeeping practices as well as associated health and safety aspects.	Contract term / weekly / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	JA05/COP/003~ Environmental Management System Code of Practice	Physical verification and routine OHSEC monitoring and audit reports.	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
165	Ablution facilities	Reduce health risks and environmental pollution arising from a concentration of human excreta in the environment	The contractor shall provide adequate ablution facilities, including a changing room with warm-water showers, for staff in the construction camp. Mobile chemical toilets shall be provided at all other locations within the Working Area, as directed by the Project Manager. Acts of excretion and urination are strictly prohibited other than at the facilities provided.	Contract term / daily / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	JE65/OWM/003~ Sewage Plant Monitoring JE50/SOP/003~ Sewage Plant Operation	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
166			The Contractor shall not install pit latrines or septic tanks for the ablution facilities at the Construction Camp. Where mobile chemical toilets are utilised, the Contractor shall ensure the following:	Contract term / daily / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
167			*Toilets shall be located within 100 m from any point of work but no closer than 50 m to any watercourse or water body;*			Project Requirement		
168			*Toilets shall be secured to the ground to prevent them from toppling due to wind or any other cause;*			Project Requirement		
169			*No spillage shall occur when the toilets are cleaned or emptied and the contents shall be properly stored and transported to the sewage treatment works;*			Project Requirement		
170			*Discharge of waste from toilets into the environment and burial of waste is strictly prohibited;*			Project Requirement		
171			*Toilets shall be provided with an external closing mechanism to prevent toilet paper from being blown out; and*			Project Requirement		
172			*Toilets shall be emptied before long weekends and builders' holidays, and shall be locked after working hours.*			Project Requirement		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
173			All ablution facilities are to be serviced regularly and kept in a clean and hygienic fashion.	Contract term / daily / *ad hoc*	Without unwarranted exceptions and in the opinion of the Contractor'' Environmental Officer , Rössing Uranium's Environmental Officer, Independent Environmental Auditor and Health and safety officer	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
174		Verification of adherence to specified requirements	All ablution facilities are to be inspected on a regular basis to ensure the above requirements are being met.	Contract term / daily / *ad hoc*	In a satisfactory state in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer, Independent Environmental Auditor and Health and safety officer	JE65/OWM/003~ Sewage Plant Monitoring JE50/SOP/003~ Sewage Plant Operation	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
175	Eating or recess areas	Reduce littering, health risks associated with contamination of foodstuff, ecological implications associated with food spillage, preventing the dispersion of workers during recesses	The Contractor shall erect designated eating or recess areas for staff at all suitable locations, close to each of the major works areas, to be agreed with the Project Manager.	Contract commencement	As per approved method statement	Project Requirement	Physical verification and as per the approved method statement	Contractor
176			Eating or recess areas shall be constructed and equipped to meet the following requirements:	Contract commencement / Contract term / daily / *ad hoc*	In a satisfactory state in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer, Independent Environmental Auditor and Health and safety officer	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and relevant health and safety officers
177			*Recess areas are to be sufficiently sized to comfortably accommodate the maximum number of staff working within the given working area;*			Project Requirement		
178			*Eating or recess areas shall be situated as close to the respective working areas whilst being sufficiently offset or positioned to offer occupants protection from construction noise and dust;*			Project Requirement		
179			*Tables and seating with adequate care for ergonomic design must be provided;*			Project Requirement		
180			*The eating area is to be completely shaded and the protected from prevailing winds;*			Project Requirement		
181			*A sufficient amount of potable water and soap shall be stationed at the eating area to allow for washing of hands and drinking;*			Project Requirement		
182			*Drinking water shall be maintained at a suitable temperature for consumption;*			JK65/COP/005~ Heat Stress		
183			*Ablution facilities shall be located within 50 m of the recess area but not closer than 15 m;*			Project Requirement		
184			*Recess areas shall have a staff information board, providing pertinent information, awareness materials and information posters;*			Project Requirement		
185			*The eating area shall be fitted with a fire extinguisher;*			Project Requirement		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
186			*Recess areas shall make provisions for a smoking area. Smoking will not be permitted anywhere else on the site; and*			Project Requirement		
187			*Recess areas shall receive daily maintenance and cleaning, all rubbish bins are to be emptied daily to the central waste storage area.*			Project Requirement		
188			Any cooking on site shall be done on well-maintained gas cookers with fire extinguishers present. No cooking shall be permitted to occur on open fires.			Project Requirement		
189			All food preparation areas, stores and kitchen layouts (including food waste handling areas) shall be inspected at routine intervals to ensure they are maintained in a hygienic condition and complaint with the relevant statutory requirements for such installations.	Monthly inspections	Relevant statutory requirements	Project requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
190		Verification of adherence to specified requirements	All eating areas are to be inspected routinely to ensure that the specified requirements are being met.	Contract term / daily / *ad hoc*	In a satisfactory state in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer, Independent Environmental Auditor and Health and safety officer	JA05/COP/003~ Environmental Management System Code of Practice	Physical verification and routine OHSEC monitoring and audit reports.	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
191	Water Use	Reduce the volume of water needed for construction purposes	Water is a scarce resource in Namibia and shall be conserved wherever possible. The Contractor shall minimise the use of water and shall immediately attend to any wastage. The Contractor shall be required to adhere to Rössing Uranium's water management strategies.	Contract term / daily / *ad hoc*	Satisfactory in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer and Independent Environmental Auditor	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/MSP/002~ Freshwater Supply Management JE50/OWM/003~ Water Recycling and Re-Use E10 - Environment Standard - Water Use and Quality Control; JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting	Physical verification and routine OHSEC monitoring and audit reports. Water usage stats as part of Contractor's submissions	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
192		Ensure that appropriate water quality is sourced for the respective use	Subject to the prior approval of the Project Manager, water for construction purposes may be supplied via the existing sources used by Rössing Uranium. The Contractor shall liaise with Project Manager regarding his water use requirements and shall ensure that water quality is appropriate for the use for which it is intended. The Contractor shall be responsible for obtaining the necessary authority and approvals prior to undertaking such abstraction. The Contractor shall absolve the Employer of any and all legal obligation and risk in this regard.	Contract term / *ad hoc*	Without unwarranted exceptions or incident	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/MSP/002~ Freshwater Supply Management JE50/OWM/003~ Water Recycling and Re-Use E10 - Environment Standard - Water Use and Quality Control; JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting	Physical verification and routine OHSEC monitoring and audit reports.	Contractor and Project Manager / Employer
193		Monitoring of water use during construction	Contractor shall install the necessary water metering devices on all incoming water delivery pipelines and calculate water tanker usage and submit the volumes of water utilised for each week.	Contract term / daily / *ad hoc*	In a satisfactory state in the opinion of the Contractor's Environmental Officer , Rössing Uranium's Environmental Officer, Independent Environmental Auditor and Health and Safety Officer	JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting	Physical verification and routine OHSEC monitoring and audit reports. Water usage stats as part of Contractor's submissions	Contractor and Contractor's Environmental Officer
194	Solid Waste Management	Ensure the appropriate handling and storage and disposal of waste and reducing the likelihood of environmental pollution	The management of solid waste on site shall be strictly controlled and monitored. The quantities of waste generated on site shall be minimised. Littering shall be avoided.	Contract term / daily	Without unwarranted exceptions or incident	JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting JA75/MSP/004~ Record-keeping Procedure E7 - Environment Standard - Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification and routine OHSEC monitoring and audit reports.	Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor
195			The Contractor shall provide sufficient weather-proof and scavenger-proof bins on site to store the solid waste produced on a daily basis. Solid, non-hazardous waste shall be disposed of in the bins provided and no on-site burying, dumping, or burning of any waste materials, vegetation, litter or refuse shall occur. Bins shall not be allowed to become overfull and shall be emptied a minimum of twice weekly. The waste may be temporarily stored on the site in a central waste area that is weather-proof and scavenger-proof, and which the Project Manager has approved.	Contract term / daily	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
196			All non-hazardous, non-recyclable solid waste shall be disposed of at the tailings dam. The Contractor shall supply the Project Manager with a certificate of disposal.	Contract term / daily	Without unwarranted exceptions or incident	JK65/PRD/003~ Disposal of Contaminated Items JE50/WMP/002~ Disposal and re-use of hydrocarbons JK65/PRD/007~ Transport of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E5 - Environment Standard - Hazardous Material and Contamination Control; E7 - Environment Standard - Non-Mineral Waste Management; B4 - OH Standards - Hazardous substances	Physical verification and routine OHSEC monitoring and audit reports.Waste disposal certificates	Contractor
197	Contaminated water management	Reducing the likelihood of environmental pollution arising for the release of contaminated water	Pollution could result from the release, accidental or otherwise, of contaminated runoff from construction camps and batching areas, discharge of contaminated water, chemicals, paints, solvents, oils, fuels, sewage, runoff from stockpiles, solid waste, litter, etc. Accordingly, the Contractor shall establish a contaminated water management system in association with the existing Rössing Uranium systems to address the prevention of pollution as well as suitable methods for the disposal of contaminated water.	Contract term / daily	Without unwarranted exceptions or incident and as per approved method statement	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; JE50/SOP/001~ Oil Separation Plant Operation	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
198			Appropriate pollution control facilities necessary to prevent discharge of water containing polluting matter or visible suspended materials into watercourses or water bodies shall be designed and implemented.	*Ad hoc*	Without incident	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control;	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
199			Runoff from the cement/concrete batching areas shall be strictly controlled, and contaminated water shall be collected, stored and either treated or disposed of appropriately, at a location approved by the Project Manager.	Contract term / daily	Without unwarranted exceptions or incident as per approved method statement	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; Water Use and Quality Control	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
200			Runoff from vehicle wash bays, workshops, and diesel/fuel tank areas shall pass through oil traps. The oil sludge thus collected shall be disposed of at an approved waste disposal site, or processed of via the existing bioremediation area.	Contract term	Without unwarranted exceptions or incident	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control;	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
201			All spillage of oil onto concrete surfaces shall be controlled by the use of an approved absorbent material.	Contract term / daily / *ad hoc*	Without unwarranted exceptions or incident	JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE50/OWM/003~ Water Recycling and Re-Use E5 - Environment Standard - Hazardous Material and Contamination Control; E10 - Environment Standard - Water Use and Quality Control; JE50/SOP/001~ Oil Separation Plant Operation JE50/WMP/002~ Disposal and re-use of hydrocarbons JK65/PRD/007~ Transport of Contaminated Items JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site E7 - Environment Standard - Non-Mineral Waste Management; B4 - OH Standards - Hazardous substances	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
202			The Contractor shall notify the Project Manager immediately of any pollution incidents on site. Verbal reports must be followed up by a written report, which shall be submitted within 24 hours of the incident.	Contract term / *ad hoc*	Without unwarranted exceptions.	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports. Verify Incident reports	Contractor / Contractor's Environmental Officer

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
203	Earthworks	Minimise the potential negative OHSEC impacts associated with earthworks operations	Major earthworks operations and operations outside the demarcated site shall be subject to approval by method statement. Endemic species of high conservation importance must be rescue and transplanted. Once the site lay-outs for the extension area are available, affected specimens should be marked and a suitable site selected for a transplant trial. Involvement of the National Botanical Research Institute would be essential to obtain permits and relevant expertise. Other Impacts on other species of concern: During expansion operations, use any opportunities for destructive sampling of habitats and associated studies to inform and add to the existing database on high priority species; where possible, translocate and protect individuals of two plant species of concern (*Adeniapechuelii* and *Lithopsruschiorum*); Include the two high priority reptile species (lizards: Pedioplanishusabensis, and Meroles sp).	Contract term / daily	Without unwarranted exceptions or incident and as per the approved method statement. Take advantage of biological surveying opportunities where they arise.	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor, HSE Department.
204			With regard to biological soil crusts, it will be useful to retain surface soil layers in areas to be newly disturbed. Experiments could reveal whether this assists restoration rehabilitation of disturbed areas, and could provide practical guidelines on how to most effectively maintain biological soil crusts.	Contract term / *ad hoc*	Minimise damage to biological soil crusts and experiment in area to be destroyed with their formation and structure for later use in rehabilitation.	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	HSE Department
205			The Contractor shall ensure that the dust and noise control measures as specified are implemented during earthworks operations.	Contract term / daily / *ad hoc*	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports. Dust and noise data as part of Contractor's submissions	Contractor / Contractor's Environmental Officer
206			Trenching shall be undertaken in accordance with the engineering specifications with the following OHSEC amplifications, where applicable:	Contract term / *ad hoc*	Without unwarranted exceptions or incident	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports and health and safety inspection reports	Contractor / Contractor's Environmental Officer / Rössing Uranium's Environmental Officer / Independent Environmental Auditor and Health and safety Officers
207			*Soil shall be excavated and immediately used for refilling trenches i.e., soil from the first trench section shall be excavated and stockpiled, thereafter soil from the second excavated trench length shall be used to backfill the trench behind it once the infrastructure has been laid. The last trench shall be filled using the soil stockpiled from the first trench section;*			Project Requirement		
208			*Trench lengths shall be kept as short as practically possible before backfilling and compacting;*			Project Requirement		
209			*Trenches shall be re-filled to the same level as (or slightly higher to allow for settlement) the surrounding land surface to minimise erosion; and*			Project Requirement		
210			*All open trenches shall be clearly and adequately demarcated.*			JH50/COP/031~ Personal Protective Equipment JH50/COP/017~ Barricading and Demarcation C4 - Working at Heights; C5 - Confined Spaces; C6 - Cranes and Lifting		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
211		Minimise the extend of earthworks	The extent of the disturbance resulting from earthworks shall be minimised to the minimum required for the execution of the works.	Contract term / *ad hoc*	In the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor in comparison with the technical drawings specifications	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
212			The extent of cut-to-fill operation required for the establishment of the temporary works shall be kept to the minimum through intelligent placement of temporary structures.	Contract term / *ad hoc*	In the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor and as per the relevant approved method statement	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
213		Ensuring stability of excavations	Excavation at all the sites shall be carried out in such a way that slopes are not made dangerously steep. In general excavated slopes should be no steeper than 1:3 (approx. 18 degrees), but where this is unavoidable appropriate measures shall be undertaken to stabilise the slopes. No materials, equipment, or other load shall be placed so close to any excavation that the stability of the sides of the excavation is endangered.	Contract term / *ad hoc*	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
214			Contractor's Health and Safety Officer / representative required to inspect excavation for stability.	Contract term / weekly or after a slide or rain	Stability confirmed	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management	Health and safety inspection sheets, physical verification and routine OHSEC monitoring and audit reports.	Contractor's Health and Safety Officer
215		Appropriate handling, stockpiling and disposal of spoil	Surplus or unsuitable material obtained from any excavations as well as rubble not required elsewhere in the Works shall be spoiled at designated spoil sites on the tailings dam. Before spoiling any such material the Contractor shall liaise with the Project Manager to ascertain where such spoiling shall occur depending of the nature and amount of material, or if Rössing could make use of the material elsewhere in the mine operations.	Contract term / *ad hoc*	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	E8 - Environment Standard - Mineral Waste Management	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
216			In operating the spoil sites, the Contractor shall ensure that:	Contract term / daily / *ad hoc*	Without unwarranted exceptions or incident and satisfactory in the	Project Requirement	Physical verification and routine OHSEC	Contractor
217			*The spoil disposed of in the spoil sites is free of contaminated or hazardous materials; and*			Project Requirement		

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
218			*The spoiling of material shall be undertaken in accordance with Rössing Uranium's requirements.*		opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	E8 - Environment Standard - Mineral Waste Management	monitoring and audit reports.	
219	Landscaping and rehabilitation	General management objective is to ensure disturbed areas are returned to pre-construction conditions	All areas disturbed as a result of the construction activities, irrespective of whether they occur within the defined Working Area or not, shall be subject to the landscaping and rehabilitation requirements outlined in this Specification. This includes, but is not limited to, Construction Camps, all stockpiling and lay down areas, the batching plants, all temporary access routes, and all other areas from which topsoil has been stripped.	Contract term / Contract completion	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor, the approved method statement and the specifications	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
220			All areas where soil compaction may have occurred due to construction activities must be loosened by ripping or scarifying of soil prior to any topsoil being replaced on such areas.	Contract term / Contract completion	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor.	Project Requirement	Physical verification	Contractor
221		Demolition and removal of structures	Prior to landscaping and rehabilitation, the Contractor shall demolish and remove from site everything not forming part of the Permanent Works. This includes, but is not limited to, temporary services and facilities (including foundations), temporary fences, temporary access routes, protective works, equipment, materials (nut, bolts, washers, wire, wood, bricks, cement *etc.*) and settlement ponds. All material generated from the demolition and removal of structures from site shall be appropriately disposed of.	Contract completion	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
222		Landscape reshaping	All slopes which do not form part of the Permanent Works shall be graded so that no slope exceeds a maximum gradient of 1:3 or as otherwise directed by the Project Manager. Contour drains shall be provided to control erosion where required by the Project Manager.	Contract term / *ad hoc*	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
223			Excavation and fills for Temporary Works and spoil dumps shall be formed in such a manner that the final profile shall appear as a natural extension to the adjacent, undisturbed ground profiles.	Contract term / *ad hoc*	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor

ID	Aspect	Management Objective	Management Action	Action Frequency	Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
224		Traffic on rehabilitated areas	The Contractor shall not undertake the landscaping of any areas until all operations that may require construction material and equipment to pass over those areas has been completed. All landscaped and rehabilitated areas shall be regarded as exclusion areas and no equipment, other than that required for establishment and maintenance purposes shall be allowed to operate on these areas.	*Ad hoc*	Satisfactory in the opinion of the Project Manager / Rössing Uranium's Environmental Officer / Contractor's Environmental Officer / Independent Environmental Auditor	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Contractor
225	Ripios disposal area: Search and rescue of significant plants	Conserve plants of particular significance	With the assistance of a recognised botanist, Rössing Uranium should conduct a search and rescue operation for plants that are of significance in all areas that will be disturbed as part of the expansion operation into the Ripios disposal area, including haul roads and conveyor routes.	On-going	Satisfactory in the opinion of the Botanist	Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Sustainable development
226			The botanist should assist with the identification of other significant species over and above the *Adeniaperchuelii* and *Lithopsruschiorum*, and oversee the extraction of the plants and assist in the identification of a suitable area to receive the transplants.	On-going		Project Requirement	Physical verification and routine OHSEC monitoring and audit reports.	Project Management Team, Botanical specialist
227	Ripios disposal area: Services	Ripios disposal area: Minimise the extent of the environmental impacts associated with the installation of the main access and haul roads	Ensure that it takes the shortest, flattest alignment, so as to maximise the long term efficiency and the effort expended by the various transport and earthmoving equipment traversing the route.	On-going	Design drawing and motivations	Project Requirement	Physical verification, design drawings and motivation	Project Management Team, Design team
228			Roads should be surfaced with a suitable wearing course, be stabilised or hard surfaced to meet the requirements of the volume and nature of traffic that it will accommodate.	On-going	Without unwarranted exceptions	Project Requirement	Physical verification, design drawings and motivation	Project Management Team, Design team and roads maintenance manager
229			Storm water controls are to be adequate in the design and functioning to prevent damage to the road or erosion in the receiving environment.	On-going	Without unwarranted exceptions	Project Requirement	Physical verification, as built drawings and design motivation	Project Management Team, Design team and roads maintenance manager
230		Ripios disposal area: Reduce the ingress of storm water in the Ripios disposal area so as to reduce the infiltration of contaminated water	Cut-off drains should be instated on the downslope of ripios dumps where drainage lines are intersected. Unpolluted storm water should be diverted away from the ripios dumps upstream of such dumps.	On-going	Where practical and satisfactory in the opinion of Rössing Uranium 's Environmental Management Department	E10 - Environment Standard - Water Use and Quality Control; E3 - Environment Standard - Acid Rock Drainage Prediction and Control; JE50/MSP/001~ Water Quality Management JE50/SOP/002~ Seepage Control Systems	Physical verification, design drawings and motivation	Project Management Team, Design team

OPERATIONAL PHASE

ORGANISATIONAL FRAMEWORK

Rio Tinto, Rössing Uranium's parent company, operates within a comprehensive Environmental Management System that accord with international standards of best practice. An array of environmental standards are thus in place and all Rio Tinto subsidiaries, such as Rössing Uranium, are committed to achieving and maintaining such international standards. Rio Tinto's business policy statement titled *The Way We Work* provides the overarching environmental touchstone for all Rio Tinto employees and sub-contractors, designed to ensure that standards and values are upheld, particularly accountability, fairness, integrity and openness. The policies and principles are then put into practice through local codes of conduct for each subsidiary, the implementation of which is reported on. Rio Tinto expects business partners, including contractors and consultants, to work to similar standards.

Rio Tinto strives to identify, develop, operate, and eventually close world class ore deposits in a socially and environmentally responsible manner by adopting a multidisciplinary approach to all social, environmental and economic activities. Business is conducted in an accountable and transparent manner, which relates not only to shareholders and employees, but also to host communities and customers and any other parties affected by their activities. The corporate policies presented in *The Way We Work* seek to respect the different laws, cultures, traditions, customs, and employment practices applicable to each business unit such as Rössing Uranium. The health, safety, social and environmental responsibilities that come with business operating activities, are managed to the highest standards and sound working relations, internal and external, and nurtured in a constructive and respectful manner (refer to Appendix A for Rössing Uranium's Health, Safety and Environmental Policy, January 2011). Extracts from Rio Tinto's policies on the environment and sustainable development follow:

- Environment: "Wherever possible we prevent, or otherwise minimise, mitigate and remediate, harmful effects of the Group's operations on the environment."
- Sustainable development: "Rio Tinto business, projects, operations, and products should contribute constructively to the global transition to sustainable development."

Matters of planning, implementation and operation, checking and corrective action, and management review, are embodied in the Rio Tinto Health, Safety, and Environment (HSE) Management System that each business unit, like Rössing Uranium, is obliged to maintain. The existing Rössing Uranium HSE System is based on the principles of internationally applied management systems for health, safety, environment and quality, including the relevant ISO standards and is consistent with the ISO:14001 Environmental Management System amongst others. It is recommended that the management strategies identified hereunder be integrated into the existing Environmental Management System component of the HSE management system where appropriate. In terms of the HSE structure, this SEMP would assist in the identification of the key environmental aspects and will serve to guide Rössing Uranium in the continued formulation of suitable Standard Operating Procedures and in attaining the continual improvement objective. Since many of the activities associated with the mine expansion are the same or similar to existing mining activities, the Rössing Uranium policies and procedures and overall experience can be extended to incorporate these additional components with minimal "school fees".

Due to the scale and complexity of Rössing Uranium's operations, the use of a formalised HSE management system is essential in allowing the company to optimise, coordinate, and manage the various operations, personnel, plant and equipment, and their interactions, in a manner that demonstrates consistent application of environmental best practice. Through the system, Rössing Uranium can efficiently detect and minimise the potential adverse impacts of its activities on the receiving environment. A brief overview of the elements of an ISO: 14 001 Environmental Management System, as entrenched in the HSE, is provided hereunder.

An ISO:14001 Environmental Management System aims to develop a systematic management approach to the management of environmental controls of the organisation. One of the key principles of this approach is the idea that continual improvement in the organisation's environmental management can be achieved and demonstrated periodically.

Planning is accomplished with the formulation of an environmental policy followed by the identification of environmental concerns (Aspects) and then by defining what measures can be implemented to control or mitigate these aspects (Objectives and Targets). An organisational structure, and system of personnel responsibilities, competency and training, are then developed and implementation begins. Communication lines, documentation control and procedural documents, operational control and emergency preparedness define the operational portion of the program. These items are usually included in an Environmental Management System Manual, which is used to document a program so as to accomplish the Objectives and Targets established at the outset. The organisation's methods for measuring and monitoring its environmental impacts are also included in the manual, along with practices for identifying non-conformances and for implementing corrective and preventative actions. This monitoring, along with routine systems audits and record keeping, constitute the Environmental Management System checking and corrective action program. The final stage in the program is a routine management review of its activities; at which time experience gained in the previous cycle is used to influence improvements to the system contributing to the key objective of continual improvement.

Figure 4 depicts the sequencing of the implementation of an Environmental Management System as well as the structure of a typical Environmental Management System.

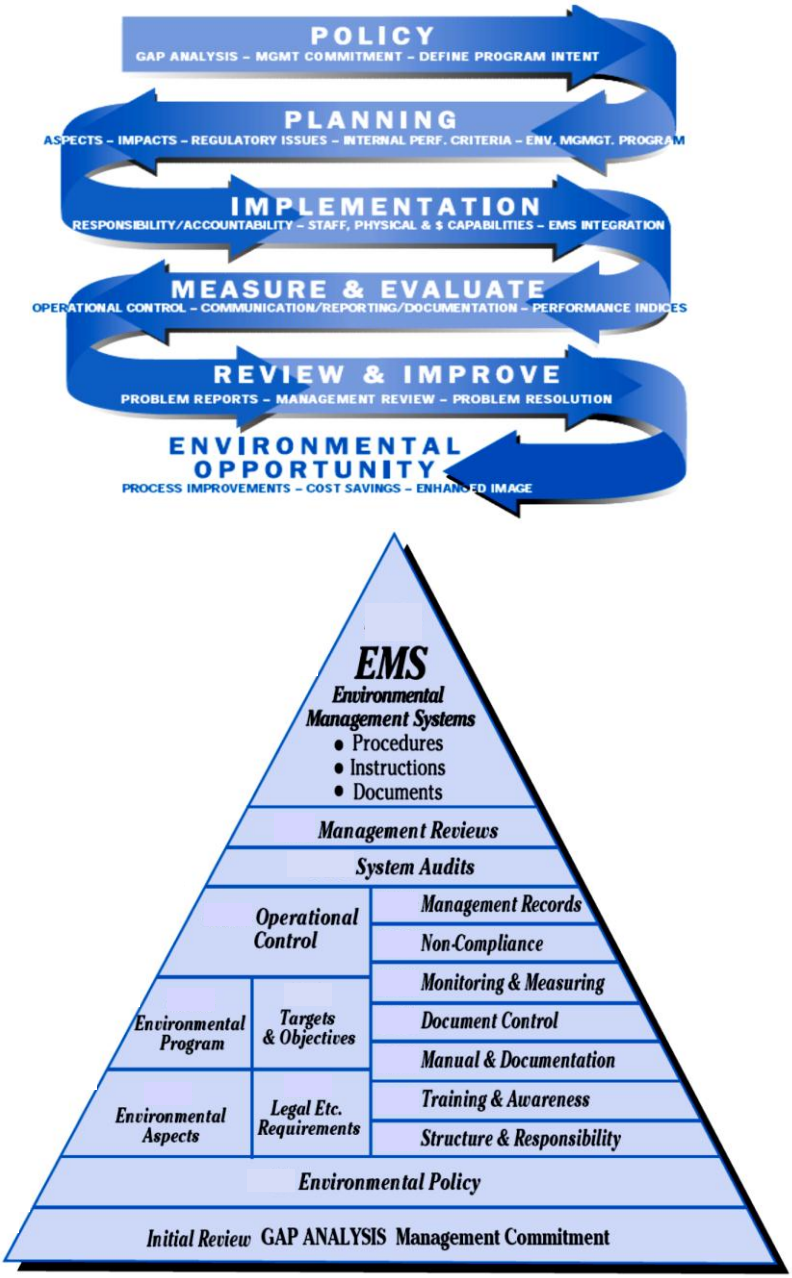

Figure 4: Sequencing and structure of an ISO 14001 Environmental Management System[8]

MINE EXPANSION SEMP AND RÖSSING URANIUM'S HSE

This section is largely informed by Rössing Uranium's Environmental Management System Code of Practice (Revision No. 8.4: June 2011).

Rössing Uranium's HSE management system will be extended and upgraded to include the various components forming part of the proposed mine expansion activities. The mitigation measures prescribed in this SEMP will be carried forward into Rössing Uranium's HSE management system to inform procedures regarding the management of new mine components. These components are the same or similar to activities already occurring at Rössing Uranium and thus standard operating procedures can be readily updated or established. The management and mitigation actions put forward in this operational phase SEMP must be utilised, together with the Project Risk Register (Project Risk Register) and standard operating procedures already in place, as an informant to the development of operating procedures for the various mine expansion activities. The SEMP can assist in the identification of aspects and the development of procedures and operational controls normally undertaken as part of the planning phase. Figure 5 depicts the current HSE management system in place at Rössing Uranium.

[8]Source: Modified from NCEDR. 1998

Key impacts (aspects) and mitigation measures identified in the SEMP can be fed into this system, to accelerate the development of HSE management system procedures.

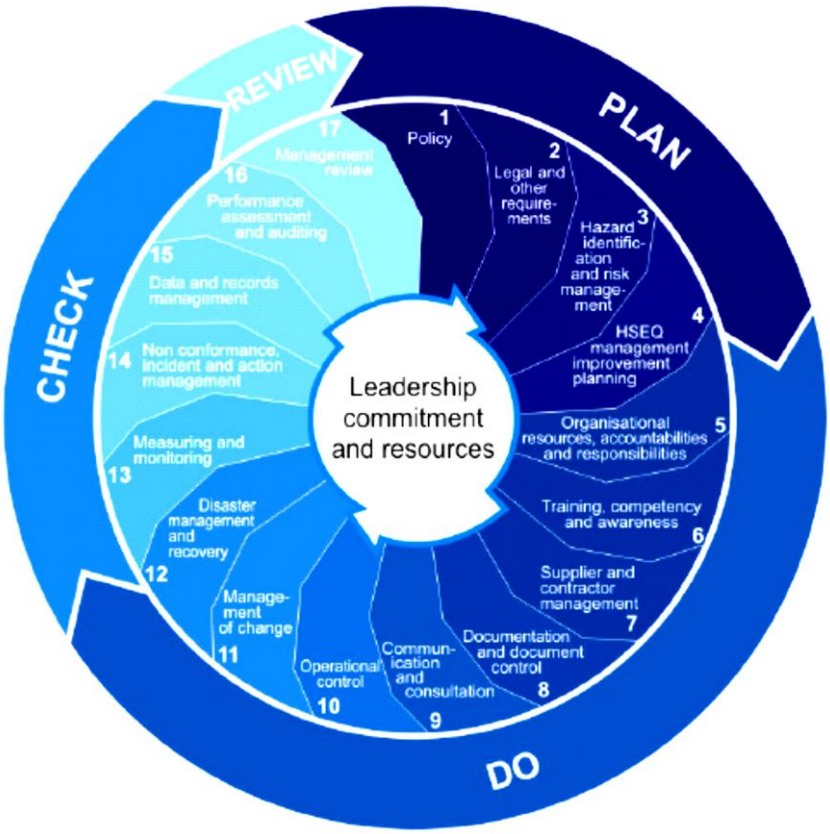

Figure 5: Overview of the HSE management system in effect at Rössing Uranium[9]

RÖSSING URANIUM'S HSE POLICY

The Rössing Uranium HSE Policy is the overarching and guiding document that informs the manner in which the company conducts its business activities and manages impacts on the environment, the health, and safety of its employees and on the public at large. Rössing Uranium's HSE Policy is attached hereto as Appendix A.

RÖSSING URANIUM'S HSE HAZARDS / ASPECTS REGISTER

Each area or activity is assessed by an experienced, multidisciplinary panel to identify potential risks to social or natural environment. The hazards or aspects are then listed in a Project Risk Register and ranked or prioritised according to the potential significance of the resulting impact. Where a hazard /aspect is rated as being of high or critical priority, a HSE Management Improvement Plan is set, which sets out an action plan for the management of certain hazards / aspects and clearly defines the roles and responsibilities, task deadlines and monitoring and reporting requirements. Medium and serious priority hazards / aspects are subject to on-going monitoring programmes to ensure continued effective management.

KEY STAGES IN THE HSE MANAGEMENT SYSTEM

The information contained in the Project Risk Register and that contained in the SEMP, will assist in the operational review process, as they, to a degree, forego the need to undertake the initial stages of the HSE management system, namely, the identification of HSE aspects. The mitigation measures and

[9]Source: Rössing Uranium Limited. HSE Management System Code of Practice. 2011

recommendations proposed in the SEMP will be carried through into the Project Risk Register, which can be used to inform the development of objectives and targets as well as offer direction in the formulation of the Environmental Management Programmes and Operational Controls for the various expansion activities.

A HSE Improvement Plan is the all-important product of the HSE management system and is vital in ensuring that the management strategies are implemented and that the effectiveness of such strategies is monitored. For each priority environmental aspect, a series of mitigation actions and an implementation programme are identified by the Environmental Coordinator, in certain cases with the assistance of the line manager, HSE Management specialists or specialist consultants. Progress and shortcomings in the implementation of the various improvement plans are reported on by the Environmental Coordinator during routine HSE meetings.

COMPETENCE, TRAINING AND AWARENESS

All employees and contract workers under Rössing Uranium's employ should possess the necessary knowledge and competence to carry out their delegated tasks in compliance with Rössing Uranium's HSE management system, especially those appointed to tasks that have the potential to cause significant environmental damage. Both Environmental Co-ordinators and the Health and Environment (H&E) officers will identify training requirements for the various departments and work areas and undertake training of employees and contract workers in the respective areas. A generic HSE Induction Training Course is delivered to all new employees or contract (including construction) workers, which deals with overarching health, safety, and environmental issues on the Rössing Uranium premises. Task-specific training can take place in the various departments and sections on an *ad hoc* basis. Records of all training courses are to be kept on the HSE management system register.

COMMUNICATION AND REPORTING

To ensure that all levels of management are kept abreast of the performance in terms of the HSE management system, reporting occurs in a frequent and formalised fashion. The existing HSE management system reporting structure is adequate and will be expanded to incorporate the mine expansion activities. Rössing Uranium will ensure that sufficient capacity exists within the HSE sections to ensure that the various roles and responsibilities of the respective sections can be fulfilled.

The H&E Officer is responsible for the collection and recording of data, which is collated into a weekly report and submitted to the relevant Environmental Coordinator. The collected data in the weekly reports is then collated by the Environmental Co-ordinators into a monthly HSE report which is interrogated and interpreted by the Environmental Management and Health Management sections and collated into a single HSE month-end report. This report is distributed to the Superintendent: Environmental Management, who is required to review and verify the content and quality of the environmental reporting. The Superintendent: Environmental Management, when satisfied, then approves the report and distributes it to all the Departmental Managers. The HSE Manager is responsible for generating an annual environmental report which is a key informant in the annual review of environmental policies and strategies.

The HSE Manager is responsible for compiling data on the environmental performance of Rössing Uranium for the monthly report, which is reviewed by the Managing Director before being forwarded to Rio Tinto. The HSE Manager is also responsible for facilitating communication between the various levels and functions of the Rössing Uranium organisation in response to customer, investor, stakeholder, and authority requirements. The Environmental Management section is responsible for on-going formal and internal communications with the various regulatory agencies regarding environmental matters and Rössing Uranium operations.

Effective communication and reporting on environmental monitoring data and performance is key to the effective management of environmental aspects of concern and central to the HSE management system

objective of continual improvement. Figure 6 below represents the reporting lines used to inform the Departmental Managers and the General Manager of HSE management system performance and *ad hoc* health, safety and environmental matters.

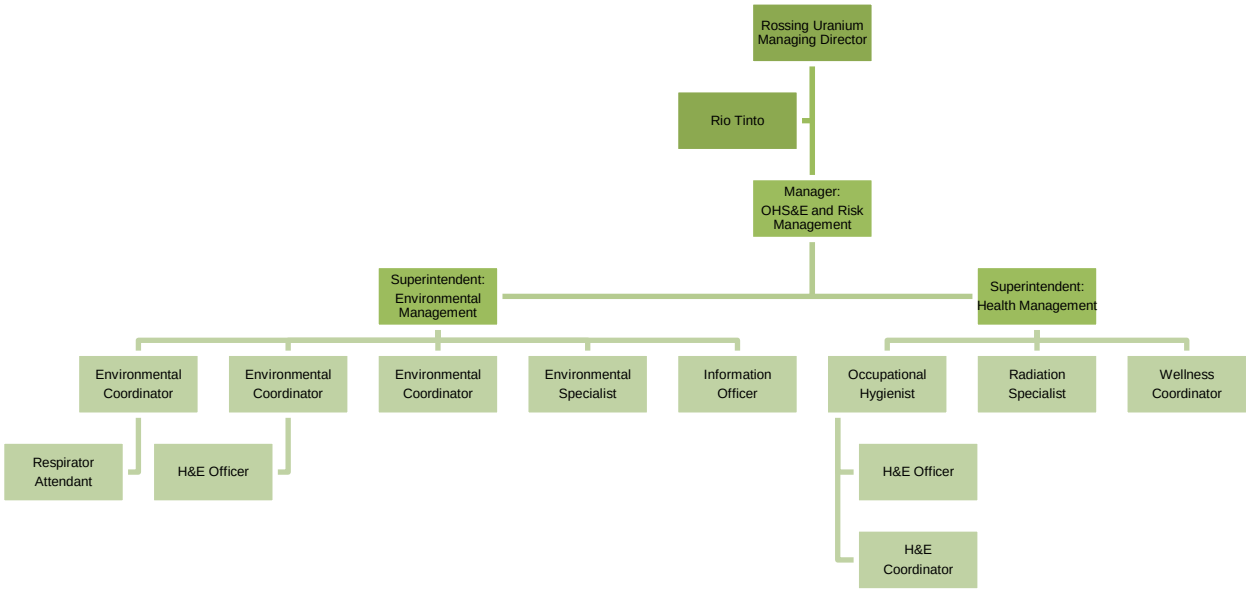

Figure 6: HSE management system reporting Structure

All new reporting resulting from the mine expansion activities shall be subject to the document control procedures in effect at Rössing Uranium. All new HSE management system operational procedures, environmental data, audit reports, and Standard Operating Procedures resulting from the mine expansion activities must be effectively captured, distributed, and controlled in terms of the HSE management system by the Environmental Management Section.

OPERATIONAL CONTROLS

Operational controls are essential for the management of specific activities that may impact on the environment. The Environmental Management section is responsible for the generation of procedural documents for specific operations and activities where environmental management and mitigation measures are a priority. The Environmental Management section is responsible for monitoring performance against the operational procedures and reporting on non-conformances during the monthly HSE meetings. Departmental Managers are responsible for the rectification of any such non-conformances and the implementation of any corrective actions defined by the Environmental Coordinator. Contractors are required to abide by Rössing Uranium's HSE operational controls and procedures as well as the rectification of any non-conformances and implementation of any corrective actions deemed necessary by the Environmental Management Section.

ORGANISATIONAL FRAMEWORK

The various appointments and their associated roles and responsibilities identified as being central to the adoption and implementation of this SEMP are discussed under the respective headings to follow and are derived from Rössing Uranium's existing HSE management system.

MANAGING DIRECTOR

The Managing Director is accountable to the Board for all HSE matters and is the custodian of the HSE Policy.

GENERAL MANAGERS

General Managers are responsible for ensuring that the HSE Policy is implemented and are responsible to the Managing Director for ensuring that the necessary reporting procedures and structures are in place and that the annual environmental targets are met.

HSE MANAGER

The HSE Manager is the custodian of the HSE management system and is responsible for the implementation of the strategic aspects of the HSE management system. The strategic portion of the HSE management system determines the overall direction, priority, time frame, and resources allocated to Environmental Management at Rössing Uranium. The HSE Manager reports directly to the General Manager: Operations.

The HSE Manager is responsible for establishing procedures for internal communication on environmental issues between the various levels and functions within the organisation. The HSE Manager is also responsible for the procedures for external communications on environmental issues whereby customer/investor/stakeholder requirements, changes in legislation, changes in business objectives etc., are recognised, internalised, and transformed into changes in the operations. The HSE Manager is thus responsible for ensuring that the current interface between Rössing Uranium, its stakeholders, shareholders, Interested and Affected Parties (I&APs) and the authorities incorporates HSE issues and that relevant issues identified are communicated to the organisation.

The implementation of the operational HSE management system in each department is the responsibility of the individual departmental managers. They do, however, work according to the guidelines (or HSE programme) maintained by the HSE Manager.

DEPARTMENTAL MANAGER

The Departmental Manager of each department is responsible for the implementation of the HSE management system within the department, including the allocation of resources in the form of training and awareness, finance and operational control e.g., corrective actions and continual improvement.

ENVIRONMENTAL SUPERINTENDENT

The HSE Superintendent is the appointed management representative of the HSE management system at Rössing Uranium.

The Environmental Superintendent is responsible for the overall implementation of the HSE management system at Rössing Uranium and it is this person's responsibility to coordinate implementation efforts throughout all departments. The Environmental Superintendent liaises closely with the departmental managers, superintendents and the Environmental Co-ordinators in order to ensure that the programme is correctly managed and maintained. The Superintendent: Health Management facilitates and co-ordinates specialist environmental projects, should such be required.

The Environmental Superintendent is also responsible for reporting on the performance of the HSE management system to top management for review.

LINE SUPERINTENDENT

The Line Superintendent is responsible for all environmental aspects as a line function and is tasked with ensuring that the objectives and targets as stipulated for each environmental aspect in his/her area are met. The Line Superintendent will therefore ensure that all target dates stipulated in a HSE system are met.

ENVIRONMENTAL COORDINATOR

The Environmental Coordinator assists the Departmental Manager and Superintendents with the implementation of the HSE management system in their respective work areas. The Environmental Coordinator facilitates:

- Internal communication on environmental issues on a departmental level between the various levels and functions within the department;
- Collation and interpretation of monitoring results based on the objectives and targets identified for each environmental aspect;
- Setting up and the updating of Environmental Management Programmes, through the annual HSE management system reviews; and
- Identification of training requirements.

The Environmental Coordinator ensures that the operational HSE management system is aligned with the Environmental Management Programme for Rössing Uranium and fulfils a facilitation, communication, and monitoring function.

HSE OFFICER

A HSE Officer is responsible for the monitoring of those aspects within the department that are stipulated in the monitoring programme.

OPERATIONAL PHASE OHSEC MITIGATION TABLE

The OHSEC Mitigation Table included herewith is aimed at facilitating effective OHSEC mitigation implementation during the operational phase, as well as monitoring and auditing thereof. To assist with the cross-referencing between OHSEC mitigation prescribed and existing Rössing Uranium HSE management system procedures, a full list of Rössing Uranium HSE management system procedures (as provided by Rössing Uranium) that may be applicable, has been included as Appendix B, although relevant references are provided in the Rössing Uranium HSE Reference column of the OHSEC Mitigation Table. This list and column references are not necessarily exhaustive and could require updating by Rössing Uranium.

Table 5: Operational Phase OHSEC Mitigation Measures

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
1	Environmental best practice	Ensuring that mitigation measures and recommendations from SEIA are carried into the operations.	Management strategies identified hereunder be carried forward through the Hazard and Operability (HAZOP) risk identification process and integrated into the HSE management system.	On-going and as required	HSE management system	JA05/POL/001~ HSE Policy Strategies; JE10/STD/001~ Standard Compliance (Rio Tinto)	Verify paperwork	Rössing Uranium
2			HSE Standard Operating Procedures to be developed, through this, duties, and management actions assigned.	On-going and as required and amended as required	HSE management system	JA05/POL/001~ HSE Policy Strategies; JE10/STD/001~ Standard Compliance (Rio Tinto)	Verify paperwork	Rössing Uranium
3			Rössing Uranium should ensure that sufficient capacity exists within the OHS&E sections to ensure that the various roles and responsibilities of the respective sections can be fulfilled.	On-going and as required	All health, safety and environmental systems are being effectively implemented	JA05/POL/001~ HSE Policy Strategies; JE10/STD/001~ Standard Compliance (Rio Tinto)	HSE Audits	Rössing Uranium
4	Worker competence, awareness and training	Ensure all employees and contract workers under Rössing Uranium 's employment have the necessary knowledge and competence to carry out their delegated tasks in compliance with Rössing Uranium 's Environmental Management System, especially those appointed to tasks that have the potential to cause significant environmental damage.	Both Environmental Coordinators and the OHS&E officers should identify training requirements for the various departments and work areas and undertake training of employees and contract workers in the respective areas.	*Ad hoc,* dedicated OHSEC topics to be presented at least once a month at toolbox talks	OHSEC topic to be presented at least once a month	JA30/MSP/013~ Identification of training needs and training methods	Training register	Rössing Uranium Environmental Coordinators and OHS&E Officers
5			A generic OHS&E Induction Training Course should be delivered to all new employees, which can deal with overarching OHSEC issues on the Rössing Uranium premises. The Disaster Management and Recovery (BRRP) procedure is communicated to new employees during their first induction. Protection Services members are inducted on an annual basis and the rest of the mine employees undergo annual mock drills.	At commencement, thereafter all new appointments and visitors	All staff to attend within first month of employment	JA30/MSP/013~ Identification of training needs and training methods; JH50/COP/024~ Induction	Training register	Rössing Uranium
6			Task-specific training can take place in the various departments and sections on an *ad hoc* basis.	*Ad hoc,* dedicated OHSEC topics to be presented at least once a month	OHSEC topic to be presented at least once a month	JA30/MSP/013~ Identification of training needs and training methods	Training register	Rössing Uranium
7			All staff shall receive training in the general and area specific emergency procedures. This training should be reinforced through re-training and simulated emergency drills.	*Ad hoc,* dedicated OHSEC emergency procedures to be presented during induction and drills to occur once a year	*Ad hoc,* dedicated OHSEC emergency procedures to be presented during induction and drills to occur once a year	JA30/MSP/013~ Identification of training needs and training methods; JH50/COP/024~ Induction	Training register	Rössing Uranium

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
8			Records of all training courses should be kept on the HSE register, including topics presented at toolbox talks.	HSE training register to be current	Without unwarranted exceptions	JA75/MSP/004~ Record-keeping Procedure	Training register	Rössing Uranium Environmental Coordinators and OHS&E Officers
9			Maximise the benefits of long-term employment by: On-going training of the Rössing Uranium workforce as currently practiced introducing training in alternative economic activities to enable members of the workforce to enter alternative economic sectors or to undertake self-employment in the event of downscaling or closure. For the benefit of the company and its employees. Adopt retention policies which will constrain 'poaching' of workers by other companies.	Contract term	Without unwarranted exceptions	*Project Requirement*	Verify training records and developmental training course materials	Rössing Uranium Project Management Team
10		Disaster management and accident prevention.	Bus drivers operating employee buses between Rössing Uranium and Arandis, Swakopmund and Walvisbay are to receive advanced driver training.	Initial training followed by annual refresher courses and competence assessments.	Without unwarranted exceptions	JH50/COP/025~ Safety Training Courses; C3~ Vehicles and Driving	Training register	Rössing Uranium Environmental Coordinators and OHS&E Officers
11			All commuter buses operating from the mine must be frequently monitored to ensure that the buses remain in roadworthy condition and the drivers are operating the buses within the prescribed safety procedures.	Monthly random inspections	Without unwarranted exceptions	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Monitoring records	Rössing Uranium Environmental Coordinators and OHS&E Officers
12			Rössing Uranium must ensure that the emergency response aircraft on standby only in Windhoek remains on call to attend to any rescue or medical emergency arising at the mine or immediate surrounds. The medical capability of the Cottage Hospital in Swakopmund is increasing and can deal with more severe traumas.	Throughout the operational phase	Without unwarranted exceptions	C7~ Aviation Safety	Documented agreements, Memorandum of understanding	Rössing Uranium
13			The possibility of chartering an aircraft from the Arandis airport for emergencies should be investigated.	Once off	Investigation	C7~ Aviation Safety	Records of discussions or correspondence	Rössing Uranium
14			The monitoring of the operational condition of the Arandis airport should be included in the BRRP. (i.e. Ensure the civil aviation inspection is done every year and that the airport is in possession of a valid certificate).	Annually	Confirmation that airport is operationally adequate	C7~ Aviation Safety	Valid certificate	Civil aviation authority and Rössing Uranium
15			The landing of a helicopter adjacent to the offices on site is deemed suitable, and a purpose built helicopter pad is not necessary. It is recommended that the area be demarcated as such.	At commencement of the operations phase	Helipad layout and markings to conform with relevant aviation standards	C7~ Aviation Safety; JH50/COP/017~ Barricading and Demarcation	Physical verification and comparison against relevant standards	Civil aviation authority and Rössing Uranium
16			Rössing Uranium must ensure sufficient medical staff and equipment are kept on site to treat and stabilise severe trauma patients ahead of transport to appropriate medical facilities.	At commencement of the operations phase	Without unwarranted exceptions	JA05/POL/001~ HSE Policy Strategies	Physical verification	HSE and Protection Services Departments

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
17			Rössing uranium must ensure that site ambulances are kept in good working condition and fully stocked at all times.	Daily inspections	Without unwarranted exceptions	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Inspection sheets	Ambulance operator
18			The continual updating of the BRRP procedure is of utmost importance. This plan should be updated to reflect changes arising from the mine expansion activities.	At commencement of operational phase and annually thereafter.	BRRP update within the last year	JA40/MSP/003~ Document Control Procedure; JA65/MSP/001~ Monitoring and Measurement	Latest BRRP version	Protection Services, Manager: OHS&E and Risk Management
19			The BRRP sets out the exact procedure to be followed in case of an emergency. When an accident is reported the Protection Services Control Room is informed about the incident, they then inform the standby duty manager, who in turn informs the BRRP Team Leader who will, depending on the gravity of the situation, call a BRRP.	During induction training	Without unwarranted exceptions	JH50/COP/032~ The role of an OHSE representative	Induction training syllabus	Protection Services
20	Communication and reporting	To ensure that all levels of management are kept abreast of performance of the HSE management system requirements. Reporting must occur frequently and in a formalised fashion. Effective communication and reporting on environmental monitoring data and performance is key to the effective management and continual improvement.	Collection and recording of data which is collated into a weekly report and submitted to the relevant Environmental Coordinator.	Weekly	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure	Verify records	H&E Officer
21			The collected data in the weekly reports is then collated by the Environmental Coordinators into a monthly OH&E report which is interrogated and interpreted by the Environmental Management and Health Management sections.	Monthly	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; JA45/MSP/002~ Communication and Reporting	Verify paperwork	Environmental coordinator/s
22			These reports are used to compile a single OHS&E and Risk Management month-end report. This report is distributed to the Superintendent: Environmental Management, who is required to review and verify the content and quality of the environmental reporting.	Monthly	Without unwarranted exceptions	JA45/MSP/002~ Communication and Reporting	Verify paperwork	Superintendent: Environmental Management
23			The Manager: OHS&E and Risk Management is responsible for generating an annual environmental report which is a key informant in the annual review of the company's environmental policies and strategies.	Annual	Without unwarranted exceptions	JA45/MSP/002~ Communication and Reporting	Verify paperwork	Manager: OHS&E and Risk Management
24			The Manager: OHS&E and Risk Management is responsible for compiling data on the environmental performance of Rössing Uranium for the corporate report, which is reviewed by the Managing Director before being forwarded to Rio Tinto.	Annual	Without unwarranted exceptions	JA45/MSP/002~ Communication and Reporting JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure	Verify paperwork	Manager: OHS&E and Risk Management
25			The Manager: OHS&E and Risk Management is also responsible for facilitating communication between the various levels and functions of the Rössing Uranium organisation in response to customer, investor, stakeholder, and authority requirements.	*Ad hoc*	Continued satisfaction of authorities, customers, investors and stakeholders	JA45/MSP/002~ Communication and Reporting JA45/MSP/007~ External Communications/Complaints	No incidents / complaints to contrary	Manager: OHS&E and Risk Management

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
26			The Environmental Management section is responsible for all on-going formal and internal communications with the various regulatory agencies regarding environmental matters and Rössing Uranium operations.	*Ad hoc*	Continued satisfaction of authorities and the various Rössing Uranium departments	JA45/MSP/002~ Communication and Reporting	Continued satisfactory performance of Rössing Uranium operations in terms of OHSEC aspects	Manager: OHS&E and Risk Management
27			All new reporting resulting from the expansion projects shall be subject to the document control procedures in effect at Rössing Uranium. The document control procedures must be reviewed to ensure that provision is made for the incorporation of the expansion projects into the HSE management system.	*Ad hoc*	Without unwarranted exceptions	JA40/MSP/003~ Document Control Procedure	Verify paperwork	Manager: OHS&E and Risk Management and subordinates (Document controller)
28			All new HSE management system operational procedures, environmental data, audit reports, and Standard Operating Procedures resulting from the expansion projects must be effectively captured, distributed, and controlled in terms of the HSE management system by the Environmental Management Section.	*Ad hoc*	Without unwarranted exceptions	JA05/COP/003~ Environmental Management System Code of Practice	Verify paperwork	Manager: OHS&E and Risk Management and subordinates (Document controller)
29			The Environmental Management section is responsible for the generation of procedural documents for specific operations and activities where environmental management and mitigation measures are a priority. The Environmental Management section is responsible for monitoring performance against the operational procedures and reporting on non-conformances during the monthly OHS&E meetings.	On-going and as required of operation and as required	Procedure available for all operations / tasks	JA40/MSP/003~ Document Control Procedure	Verify paperwork	Manager: OHS&E and Risk Management and subordinates (Document controller)
30			Compliance in terms of the operational EMP should be audited by a senior member of staff or appropriately qualified external auditor and an audit report produced.	Annually	Without exception	JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances; JA80/AUD/001~ Procedure carrying out environmental audits at Rössing Uranium	Environmental monitoring programme and audit reports	Rössing Management and HSE Department
31			Departmental Managers are responsible for the rectification of any non-conformances and the implementation of any corrective actions defined by the Environmental Coordinator or auditor.	*Ad hoc*	Non-conformances receive adequate, timeous attention	JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances; JA80/AUD/001~ Procedure carrying out environmental audits at Rössing Uranium	Weekly and monthly reports	Environmental Coordinators, H&E Officer and auditor

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
32			In the event of a community or individual noise complaints, records should be kept in order to provide an appropriate complaint response and establish resolution procedures. A specially assigned person from the MET should take note of the complaint. Depending on its severity, it should be referred to the noise monitoring specialist in order to conduct an on-site investigation, or alternatively, it should be taken into consideration during the subsequent monitoring.	*Ad Hoc*	Without unwarranted exceptions	JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; JA65/MSP/001~ Monitoring and Measurement	Complaints register and noise monitoring data	Environmental Coordinators, H&E Officer
33	Socio-economic impacts	The sustainability of Arandis and the encouraging independence from the Rössing Uranium mine.	Rössing Uranium should actively discourage and gradually reduce Arandis's economic dependency on Rössing Uranium. To achieve this, Rössing Uranium should consider phasing out property ownership and rentals in Arandis and not acquire any additional property in the town. Other towns and communities in the Erongo Region should benefit equally from Rössing Uranium's Corporate Social Investment and Arandis should no longer be prioritised for property investment or capital expenditure programs.	On-going and as required and as required	The majority of the expansion project related employees to be housed outside of Arandis	JA05/POL/001~ HSE Policy Strategies	Physical address list of employees	Manager: Community Relations and Rössing Foundation
34			Continue with Corporate Social Investment in Arandis until such time as the infrastructure for service delivery is in satisfactory condition. Thereafter Arandis should have the same status for benefits under Rössing Uranium's Corporate Social Investment as other towns and communities, i.e., it should not be specifically prioritised for funding.	Throughout the operational phase	Develop a plan of actions / projects with the Arandis Town Council that are to be completed before normalisation	JA05/POL/001~ HSE Policy Strategies	Correspondence and minutes of workshops and Agreed plan of action	Manager: Community Relations and Rössing Foundation
35			Continue capacity building in the Town Council of Arandis.	Throughout the operational phase	Where required	JA05/POL/001~ HSE Policy Strategies	Records of correspondence, meetings workshops and training.	Manager: Community Relations and Rössing Foundation
36			Ensure that development initiatives in Arandis have sustainability before closure as one of their objectives.	Throughout the operational phase	Focus on existing projects and minimise new projects	JA05/POL/001~ HSE Policy Strategies	Records of correspondence, meetings workshops and training.	Manager: Community Relations and Rössing Foundation
37			Together with the Town Council of Arandis and the Rössing Foundation, develop monitoring programmes which include Key Performance Indicators for monitoring progress towards sustainability.	On-going and as required and reviewed as required	Documented monitoring programme	JA05/POL/001~ HSE Policy Strategies; JA65/MSP/001~ Monitoring and Measurement JA40/MSP/003~ Document Control Procedure; JA75/MSP/004~ Record-keeping Procedure	Monitoring programme and evidence of collected monitoring data	Training & Development and Human Resources Departments
38			Formally serve notice to the Arandis community as soon as downscaling and/or closure become possibilities.	As required	At concept stage	JA05/POL/001~ HSE Policy Strategies	Public meetings and public advertisements	Training & Development and Human Resources Departments

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
39			Promote post-closure retention of skills in Arandis by aligning training and skills development with local economic development.	Throughout the operational phase	Skills development programme to reflect this objective	JA05/POL/001~ HSE Policy Strategies	Skills development programme / syllabus.	Rössing Uranium
40			The achievement of sustainability on closure will require concerted and aligned activities by all stakeholders, and particularly by mining companies. Rössing Uranium should promote and support initiatives to achieve commonality of vision and activities, in particular those initiated by the implementing organisation of the Strategic Environmental Assessment.	Continual	Regular, formal engagements with other stakeholders	JA05/POL/001~ HSE Policy Strategies	Meeting minutes and workshop notes	Training & Development and Human Resources Departments
41			Rössing Uranium should continue its support of local service providers in Arandis through its local procurement policy and encourage and assist with their growth in capacity and diversification. Rössing Uranium should also support initiatives by other development agents to assist in the diversification of the local economy and decrease the dependence on the mineral sector.	Continual	Procurement target is equal to 50% of total spend	JA05/POL/001~ HSE Policy Strategies	Local procurement data	Rössing Uranium Procurement Department
42			Rössing Uranium should investigate opportunities and mechanisms to facilitate the participation of women in the local economy.	On-going	Documented and implemented plan of action	JA05/POL/001~ HSE Policy Strategies	Social monitoring programme	Training & Development and Human Resources Departments and Rössing Foundation
43			Rössing Uranium should: ◦ continue and intensify lobbying to fast-forward the Namwater desalination plant, both through the Chamber's channels and on its own; ◦ undertake intensified consultation with Areva Resources Namibia to gain priority access to that company's excess desalinated water if this becomes available; ◦ ensure continued improvement of surface and ground water management programmes through review and optimisation of processing activities; ◦ prepare for hostile public reaction to water consumption by the mine; ◦ use the existing fora of which it is a member to ensure that water concerns are given priority, and to maintain urgency in addressing these concerns; and ◦ ensure the availability of a sufficient, sustainable and economic supply of desalinated water before taking a decision to implement of the Mine Expansion Plan.	On-going and as required	Engage with relevant entities on matters pertaining	JE20/OWM/001~ Freshwater Demand Planning; JE50/MSP/002~ Freshwater Supply Management; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use	Records of correspondence and engagements with relevant entities	Rössing Uranium

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
44		Maximise permanent employment by ensuring that not only are all positions filled but that employees continue to develop skills that will increase their employability after mine closure.	Rössing Uranium should continue with its on-going workforce training and should, when the possibility of retrenchments becomes apparent, introduce training courses in alternative economic sectors and self-employment. Training in alternative economic sectors should be aligned with the other major economic sectors in the Erongo Region.	Continual and as required	Skills needs are to be established and skills development programmes expanded	JA30/MSP/013~ Identification of training needs and training methods	Training register	Training & Development and Human Resources Departments
45			Rössing Uranium's recruitment policy should ensure equitable employment opportunities for marginalised groups. All Rössing Uranium contractors should be required to adopt Rössing Uranium's recruitment policy. Civil contractors commissioned during the construction phase should also be required to implement the Rössing Uranium recruitment strategy and Rössing Uranium should, upon completion of the construction phase, recruit suitable personnel if required from the contractor's workforce, to continue their employment in the operational phase of the expansion projects. Rössing Uranium should therefore assist the contractor in the suitable training and development of the construction workforce for later absorption into the Rössing Uranium workforce.	On-going	Demographics of workforce should mirror regional demographics	JA05/POL/001~ HSE Policy Strategies	Employment statistics	Training & Development and Human Resources Departments
46			Rössing Uranium should expand its skills and capacity development programme to address the disadvantages of low skills and experience in the labour pool. Such a programme should be extended to the contractor's workforce as well.	Continual	Skills needs are to be established and skills development programmes expanded	JA30/MSP/013~ Identification of training needs and training methods	Training register	Training & Development and Human Resources Departments
47			Rössing Uranium should consider supplying start-up funding to small and medium enterprises that could render services to the company. Priority should be given to companies that would contribute to economic diversification in the local economy.	As required	Documented business investment plan of action	JA05/POL/001~ HSE Policy Strategies	Number of local businesses benefiting from the initiative	Manager: Sustainable Development and Rössing Uranium senior management
48			Adopt procurement strategies that promote small, Namibian companies and encourage diversification and development of these companies away from dependence on Rössing Uranium. When local service providers are available, but lack the capacity to be contracted to Rössing Uranium, assist such service providers to acquire the necessary capacity.	Pre –commencement	Increase the percentage of materials and services procured locally	JA05/POL/001~ HSE Policy Strategies	Procurement records	Manager: Sustainable Development and Rössing Uranium senior management

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
49			Contractors should be required to prioritise local labour and to ensure employment equity by employing representatives of marginalised groups.	At contract tender stage	Tendering process to make provision for enhancement of local employment	JA05/POL/001~ HSE Policy Strategies	Tender documentation and adjudication records	Manager: Sustainable Development and Rössing Uranium senior management
50			For the benefit of the Company and its employees, employee retention policies should be identified and adopted to limit 'poaching' of workers by other Companies.	Throughout the operational phase	Maximise labour retention	JA05/POL/001~ HSE Policy Strategies	Labour / human resources records	Manager: Sustainable Development and Rössing Uranium senior management
51			Maximise the benefits of long-term employment through on-going training of the Rössing Uranium workforce as currently practiced, introducing training in alternative economic activities to enable members of the workforce to enter alternative economic sectors or to enter self-employment in the event of downscaling or closure.	Throughout the operational phase	Alternative skills development programme established and functional	JA05/POL/001~ HSE Policy Strategies; JA30/MSP/013~ Identification of training needs and training methods	Alternative skills development programme established and functional	Manager: Sustainable Development and Rössing Uranium senior management and Training & Development and Human Resources Departments
52		Minimise the exposure of the public to potential hazards associated with the mine.	Continue to develop and improve on its stringent Occupational Health, Safety and Environment programmes and policies relating to management and monitoring of dust, noise, radiation and water, vehicle maintenance, operator training and emergency response plans.	Continual	Compliance with HSE objectives	JA05/POL/001~ HSE Policy Strategies; JA10/MSP/005~ Updating of the Legal Register	HSE Audit results	Manager: OHS&E and Risk Management and subordinates
53			Safety of visitors to the mine to be managed by applying rigorous visitor induction programmes, ensuring that all visitors are guided by OHS-trained officials when on site and by providing adequate personal protective equipment.	Continual	Without unwarranted exceptions	JH50/COP/024~ Induction; JH50/COP/031~ Personal Protective Equipment	Physical verification	Manager: OHS&E and Risk Management and subordinates
54			Rössing Uranium to develop a decision flow chart defining the broad emergency strategies which is to be made available to all site personnel and visitors. This flow chart should incorporate a set of trigger and completion parameters.	On-going and as required	Compile decision flow chart	JA05/POL/001~ HSE Policy Strategies; JA45/MSP/002~ Communication and Reporting; BRRP	Verify up-to-date decision	Manager: OHS&E and Risk Management and subordinates
55			Fully investigate all incidents involving the public and use the findings to inform amendments to policy and procedure.	As required	Without unwarranted exceptions	JA70/MSP/010~ Reporting and Investigation of HSE incidents and/or non-conformances; JA75/MSP/004~ Record-keeping Procedure; JA05/POL/001~ HSE Policy Strategies	Incident reports	Manager: OHS&E and Risk Management and subordinates
56			Expand all social and environmental monitoring programmes and policies relating to dust and blast management associated with the expanded SJ pit.	On-going and as required and throughout the operational phase	Monitoring systems reviewed to cater for expansion	JA65/MSP/001~ Monitoring and Measurement; E2 - Environment Standard~ Air Quality Control; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; B3 - OH Standards~ Manual handling and vibration; JK65/PRC/010~ Particulate Monitoring	Environmental monitoring programme	HSE Department

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
57			Where emergency response plans involve local communities, ensure that such communities are aware of the contents of the plans and what is expected of them.	On-going and as required and throughout the operational phase	Monitoring systems reviewed to cater for expansion	JA45/MSP/007~ External Communications/Complaints	Environmental monitoring programme and workshop records with communities	HSE Department
58			Adequate advance notification or warning systems to be developed to ensure Arandis residents are forewarned of blasting events. Provide feedback to the Arandis community of the results of air quality and blast monitoring in Arandis.	On-going and as required and throughout the operational phase	Blasting schedules to be posted in Arandis	JA45/MSP/007~ External Communications/Complaints; JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting	Physical verification	HSE Department
59			Ensure that a comprehensive monitoring programme for air quality is carried out in Arandis.	On-going and as required and throughout the operational phase	Monitoring systems reviewed to cater for expansion	JA65/MSP/001~ Monitoring and Measurement; E2 - Environment Standard~ Air Quality Control	Environmental monitoring programme and workshop records with communities	HSE Department
60			Establish a health baseline of Arandis, and initiate a health surveillance programme to detect changes over time.	On-going and as required and throughout the operational phase	Community health monitoring programme established and maintained	B7 - OH Standards~ Fitness for work; B9 - OH Standards~ Travel and remote site health; B10 -OH Standards~ occupational exposure limits	Community health monitoring programme established and maintained	HSE Department
61			The Rössing Foundation's community Health and safety as well as the HIV/AIDS community awareness programme to be extended to community.	On-going	Reduced HIV/AIDS prevalence, infection rate within range of influence. Improved health and safety awareness of community	JH50/COP/027~ Health & Safety off the Job	Events, presentations, workshops, etc. Feedback obtained through surveys and questionnaires	Rössing Foundation
62			Ensure that the Disaster Management Plan is regularly updated and that there is adequate support, awareness, and competency to implement such plans.	On-going and as required and reviewed annually or as required	Disaster Management Plan reviewed within the previous year	JA45/MSP/002~ Communication and Reporting JA40/MSP/003~ Document Control Procedure	Up to date Disaster Management Plan	HSE Department
63			Implement the recommendations of the specialist traffic study undertaken for Phase 2 of the Mine Expansion Project.	On-going and as required and throughout the operations phase	All mitigations measures explored and or implemented	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Physical verification or records showing why certain mitigation measures were not implemented.	Manager: OHS&E and Risk Management and subordinates
64			When wind direction is in the direction of Arandis, blasting operations should be delayed or additional measures employed to minimise the production of dust.	*Ad hoc*	When high winds are directed across Arandis, no blasting to occur	E2 - Environment Standard~ Air Quality Control; JE/50/PIN/003~ Dust Deposition Sampling	Complaints register relating to dust incidents	SJ pit operations and blasting contractor.
65			Rössing Uranium has programmes in place for dust suppression on the mine. A bitumen emulsion and recycled water are sprayed on the haul roads, and dust is controlled by dust extractors during the crushing process.	Operational phase	Continue to optimise the road network, reducing the volume of water used in dust suppression spraying	JA05/COP/003~ Environmental Management System Code of Practice; E2 - Environment Standard~ Air Quality Control; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers	Water usage statistics	HSE Department

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
66			As exceedences of the PM10 EC daily limit and WHO daily guideline was measured at Arandis, it is recommended that continued PM10 monitoring be undertaken at this sensitive receptor in order to establish emission contributions from Rössing Uranium.	On-going and as required and throughout the operational phase	Monitoring programme and stations established	E4 - Environment Standard~ Greenhouse Gas Emissions; E2 - Environment Standard~ Air Quality Control; JE/50/PIN/003~ Dust Deposition Sampling; B1 - OH Standards~ Particulate and gas or vapour exposures; JK65/COP/011~ Human Vibration Protection; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey	Physical verification and environmental monitoring criteria	HSE Department
67			Environmental noise monitoring should be carried out regularly to detect deviations from predicted noise levels and enable corrective measures to be taken where warranted.	On-going and as required and throughout the operational phase	Monitoring programme and positions established	JA65/MSP/001~ Monitoring and Measurement; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey	Environmental monitoring Records and corrective actions	HSE Department
68			A permanent noise monitoring base station with satellite stations, in order to cover all points can also be utilised. The monitoring information can be stored in one database and the post-processing can be automated. These parameters should be noted on the point data sheet and include: wind speed, temperature, relative humidity, atmospheric pressure, and cloud cover. For the identification of the current or future new point coordinates a GPS instrument should be used.	On-going and as required and throughout the operational phase	Permanent station established, or records of discussion and reasons why not adopted.	JA65/MSP/001~ Monitoring and Measurement; JA40/MSP/003~ Document Control Procedure; JA75/MSP/004~ Record-keeping Procedure	Environmental monitoring Records and physical verification	HSE Department
69			A program of performance trials on candidate passive chemical barriers should be started to determine their effectiveness and reliability in capturing and immobilizing uranium and other contaminants in seepage flows to the Khan River.	On-going and as required	Undertake investigation and feasibility assessment	JE65/OWM/001~ Khan River Water Supply;; JE50/SOP/002~ Seepage Control Systems; JE05/STR/001~ Rössing Water Strategy; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management	Record of assessment	HSE Department
70			A transport model by Aquaterra will be used to assist in formulating appropriate mine wide water pollution management measures.	On-going and as required and throughout the operational phase	All water management strategies identified are implemented or reasons provided where such are not implemented	JE50/SOP/002~ Seepage Control System; E10 - Environment Standard~ Water Use and Quality Control; C3~ Vehicles and Driving	Confirm Aquaterra report recommendations are implemented.	HSE Department.
71			According to permit 385 Rössing Uranium must monitor the mining area and Khan River for new seepage areas and inform the DWA if such areas are discovered.	On-going	Maintain the water monitoring programme that addresses operational and closing phases	JE65/OWM/001~ Khan River Water Supply;; JE50/SOP/002~ Seepage Control Systems; JE05/STR/001~ Rössing Water Strategy; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management	Environmental monitoring programme and generated data	HSE Department.
72		Minimising risks and impacts associated with increasing traffic volumes.	For reasons of safety, it is company policy that all employees should use the large buses. This policy should be extended to all subcontractors and service providers as far as practical.	On-going	Percentage of employees using the transit systems increases year-on-year.	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Records	HSE Department.

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73			With the increase in Uranium mining operations in the region and the expected increase traffic volumes, it is recommended that Rössing Uranium collaborate with other mining companies and provide financial assistance and lobby for the upgrading of the C34 to a tar road.	On-going and as required	Official and collaborative request to the relevant authorities	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Correspondence	Rössing Uranium and Manager: Sustainable Development
74			In the event of the C34 is upgraded to a tar road, all service providers commuting between Walvis Bay and Rössing Uranium should be required to utilise this route.	*Ad hoc*	All Walvis Bay to Rössing Traffic utilised the tarred road	C3~ Vehicles and Driving JH50/COP/007~ Vehicles and Driving	Conduct a survey	Rössing Uranium and Manager: Sustainable Development
75			Undertake a physical survey to establish more accurately the number of vehicles that use the road network to go to the mine regularly in order to establish whether further traffic management plans are required.	On-going and as required	Generate a survey report with recommendation	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving; JA65/MSP/001~ Monitoring and Measurement	Survey report and recommendations. Confirm recommendations are implemented	Rössing Uranium and Manager: Sustainable Development
76			Where opportunity exists, higher occupancy vehicles should be used for commuting as this will reduce the number of vehicles on the road and minimise risk exposure.	On-going and as required and during operational phase	Optimal bus to employee ratio, aimed at a reduction in the number of buses	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Inspected that bus fleet and run calculation on bus to employee ratio	Rössing Uranium and Manager: Sustainable Development
77			Rössing Uranium should consider providing additional support to the traffic department of NAMPOL during peak commuter traffic times, at the following locations: the exit from Swakopmund going towards Arandis, the intersection of the B2 and the C28 and the Arandis intersection.	Throughout the operational phase	Traffic control pointsmen assigned to problem areas during peak traffic periods.	C3~ Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Physical verification	Manager: OHS&E and Risk Management and subordinates
78			On appointment, all subcontractors and service providers must accept a code of conduct which will address issues such as speed, vehicle maintenance, loading, driver proficiency, and alcohol abuse and passenger safety.	At commencement and whenever a new contractor is commissioned	Without unwarranted exceptions	C3~ Vehicles and Driving	Contractual agreements	Rössing Uranium
79			Rössing Uranium should endeavour to improve its policies and programmes for driver training, vehicle maintenance and road safety.	On going	Undertake routine monitoring of operator performance and investigate incidents. Information fed back to operators through policy and procedural changes	C3~ Vehicles and Driving; JA30/MSP/013~ Identification of training needs and training methods; JH50/COP/025~ Safety Training Courses	Road safety record and bus monitoring records	Manager: OHS&E and Risk Management

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80			Where required, Rössing Uranium in collaboration with the relevant authority through the Chamber of Mines or the Strategic Environmental Assessment implementing agency should refurbish all faded road markings, road signs (in accordance with the relevant SADC regulations). Effort should also be made to identify and reduce the number of non-essential road signs and correct signs where these are inaccurate or poorly positioned (see traffic assessment for further detail). It is also noted that road signs are missing at certain locations; these are detailed in the traffic report.	At commencement and on-going	Road marking and safety feature meet standards	C3~ Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Confirmation that SADC Regulations are met, as the minimum.	Manager: OHS&E and Risk Management
81			The 'salt road' (behind the dunes) is not clearly signed; since the use of this road is to be encouraged, correct signage should be made a priority and Rössing Uranium should support such measures	On-going and as required	Signposting implemented	C3~ Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Physical verification	Manager: OHS&E and Risk Management
82			All shortcomings identified as creating potentially unsafe situations due to increased traffic volumes should be contained in a medium- to long-term planning programme.	On-going and as required	All risks identified have been actioned / mitigated	C3~ Vehicles and Driving; JH50/COP/027~ Health & Safety off the Job	Physical verification / records	Manager: OHS&E and Risk Management, Roads Committee
83			Rössing Uranium has stringent driver training and testing programmes in place. Buses are comprehensively fitted with safety and monitoring equipment. Drivers undergo annual medical screening and are subject to random alcohol and drug tests. Applicants need to be accredited to the K53 Scania Driver Academy and, once appointed, undergo annual refresher training with the Academy.	On-going and as required and annual refresher courses	All bus drivers to undergo advanced training and annual retraining	JA30/MSP/013~ Identification of training needs and training methods; C3~ Vehicles and Driving	Training records	HSE Department
84			The Erongo mining community set up a Roads Committee to create a forum for, among many other things, implementing recommendations from the socio-economic impact assessment as soon as possible. Rössing Uranium to support such an initiative.	On-going and as required	Identify and address all road and traffic related risks associated with mine expansion	JA05/POL/001~ HSE Policy Strategies	Meeting minutes / resultant actions	Manager: OHS&E and Risk Management, Roads Committee
85			The two intersections, the T-junction of DR1911 with the B2 and the T-junction of C34 with B2 should be reviewed and geometric improvements made by the relevant authorities. Rössing Uranium to support such an initiative.	On-going and as required or during the operational phase	When the risk of traffic accidents at these T-junctions become more significant, consideration must be given to their re-development	C3~ Vehicles and Driving	Traffic surveys and assessments	Manager: OHS&E and Risk Management, Roads Committee

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86			Redevelop the B2 intersection at the mine to eliminate all right-turning movements. This could be achieved by creating a new road from the south to form a new T-junction with the B2. Right turns would then be prohibited by way of a raised dividing barrier in the middle of the B2. The layout would function as a partial interchange. Traffic movements on the B2 would be limited to left-only movements. The number of conflict points on B2 would be reduced significantly in this way, and would therefore contribute to safer traffic flow.	On-going and as required or during the operational phase	Redevelop the intersection in line with specialist recommendations	C3~ Vehicles and Driving	Physical verification	Manager: OHS&E and Risk Management, Roads Committee
87		Negative social implications associated with the accommodation of additional workforce.	Rössing Uranium should open negotiations with local authorities in Swakopmund and Walvis Bay to establish what options are available to the company for accommodating the workforce in the two towns.	On-going and as required	The majority of the expansion project related employees to be housed outside of Arandis	JA05/POL/001~ HSE Policy Strategies	Physical address list of employees	To be agreed
88			To address negative perceptions, Rössing Uranium, should provide practical demonstrations to the community on the way in which environmental monitoring is done, where the monitors are and how they work.	On-going and as required	Conduct public demonstration / open day at least once annually	JA45/MSP/002~ Communication and Reporting; JA45/MSP/007~ External Communications/Complaints; JA65/MSP/001~ Monitoring and Measurement; JA05/COP/003~ Environmental Management System Code of Practice	Public open days or records of public engagements	HSE Department
89			The cumulative impact of Rössing Uranium and other mining companies competing to accommodate their workforces in these towns could result in the destabilisation of the property market, leading to property price inflations. Rössing Uranium should, through the Chamber of Mines of Namibia, approach the matter collaboratively, by negotiating with the authorities and other mining houses to develop appropriate mitigation measures to address this issue.	On-going and as required	Documented plan of action / agreement	Project Recommendation	Formal agreement	To be agreed
90			Rössing Uranium must, as a priority, advise local authorities of its housing requirements for the Mine Expansion Project and work collaboratively with the town councils to encourage sustainable settlements. Design housing projects for use by groups other than just mine employees and should maximise the possibility for post-closure use.	On-going and as required and as required	Sustainability to be considered as part of each development	JA45/MSP/007~ External Communications/Complaints	Record of decisions influencing sustainability to form part of each development proposal	To be agreed

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91			Ensure that the design of housing projects within a community is such that the development of "mining enclaves" is avoided.	On going	Prevent enclaves; A GIS map of staff residences should be complied to identify potential problem areas, information should also be shared or obtained from other mining operations in the area	Project Recommendation	Staff accommodations map / address list and physical verification	To be agreed
92			Avoid the increase in property prices that results from competition by working consultatively with other mining companies through the channels provided by the implementing agency of the Strategic Environmental Assessment.	On-going and as required	Housing plan to provide actions to meet this objective	Project Recommendation	Housing plan,	To be agreed
93			Keep the cost of housing for employees as low as possible by avoiding, as far as is feasible, the use of property developers and estate agents. Rössing Uranium should use the following avenues for the purchase of houses/erven, in order of preference: local authorities, property developers, and estate agents.	On-going and as required and as required	Land acquisitions demonstrate pattern of priority	Project Recommendation	Sales agreement	To be agreed
94			Limit the number of houses it makes available in Arandis, and provide such housing only where the employee states a preference for living in the town.	On-going and as required and throughout the operational phase	The proportion Arandis based employees to reduce over the current	Project Recommendation	Property register and staff housing lists	To be agreed
95			Rössing Uranium should make public its housing policy as soon as possible so as to manage expectations and curtail developments which are being undertaken in anticipation of housing the Rössing Uranium workforce.	As soon as possible	Public advertisement, declaring Rössing Uranium 's intentions	Project Recommendation	Public advertisement	Training & Development and Human Resources Departments
96		Minimising the impacts associated with the influx work seekers and their families to the area.	Rössing Uranium should contribute to the prevention of backyard dwelling, informal housing and the attendant health and social problems by promoting home ownership and ensuring, as far as feasible, that the workforce is accommodated in formal housing. Rössing Uranium owned or leased premises should be monitored to ensure that no backyard dwelling or illegal sub-letting of the premises is occurring.	As required	Without unwarranted exceptions	Project Recommendation	Physical inspection of Rössing Uranium owned / leased premises	Training & Development and Human Resources Departments
97			Rössing Uranium should support the Arandis Town Council in its efforts to upgrade the state of the health services so that these can cope with the inward migration of unemployed work seekers.	As required	Regular, formal engagements with the Arandis Town Council	JA45/MSP/007~ External Communications/Complaints	Meeting minutes and workshop notes	Rössing Uranium senior management, Rössing Foundation and Arandis Town Council
98			Rössing Uranium should extend its workforce health programmes to all the company's communities of interest. The health programme should be specifically extended to include tuberculosis.	As soon as possible	On-going	JH50/COP/027~ Health & Safety off the Job	Verification of areas covered by programme as well as programme topics	Training & Development and Human Resources Departments and Health and Safety

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99			As per the present arrangement, Rössing Uranium's recruitment policies should make preference for localised labour. An employment desk and registration of the local labour pool should occur before the expansion project becomes well known and the news widespread.	All phases	The number of local employees should increase each year	JA05/POL/001~HSE Policy Strategies	Employment records	Human Resources
100		Reduce the potential negative impacts of sudden population increase on the local schools.	Rössing Uranium should enter into negotiations with the Ministry of Education, through the mechanisms provided by the Chamber of Mines of Namibia, for the building of additional schools in areas where the workforce will reside. Consideration shall be given to building extra classrooms at existing schools where the shortage is most critical and avoid building new schools except where travel distances create challenges.	As soon as possible	New schools built or existing schools upgraded	JA45/MSP/007~ External Communications/Complaints	Physical inspection	Rössing Uranium senior management
101			Extend existing workforce health programmes, which should include tuberculosis, to all the company's communities of interest.	On-going	Health programmes rolled out to all feeder communities	Project recommendation	Relevant records	Training & Development and Human Resources Departments
102			Develop awareness programmes addressing social ills, such as alcohol abuse and violence against women and children and extend these to all the company's communities of interest through the Peer Educator Programme.	On-going	Health programmes rolled out to all feeder communities	JH50/COP/027~ Health & Safety off the Job	Relevant records	Training & Development and Human Resources Departments
103	Non mineral waste management	Best practice landfill management and reducing risk magnitude and severity on the general waste landfill as well as the hazardous waste landfill.	No burning of waste is permitted. Every precaution should be taken to prevent outbreak of fire. All fires are to be extinguished - burning waste should be exposed, spread and smothered and covered with cover material, soil or other non-combustible material. This should preferably not be done during high winds and water should not be used. The fire fighting services are always to be called immediately when a fire is detected as it could still be burning due to the presence of landfill-gas. Smoking on site should be forbidden. The landfill site shall be equipped with the necessary fire protection measures to attend to any fires that may arise. Landfill staff shall undergo fire-fighting training. Care shall be taken to ensure that hot or burning wastes are not deposited into the main landfill body until effectively extinguished.	On-going	Without unwarranted exceptions	JA05/COP/003~ Environmental Management System Code of Practice; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; E7 - Environment Standard~ Non-Mineral Waste Management; JE50/WMP/001~ Non-mineral waste management	Incidents reports and physical verification	HSE Department and Disaster Management

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104			The landfill site shall be fenced off and suitable lockable access gates provided. Suitable notice boards to be erected on the boundary fence to notify persons of the presence of the landfill site and all potential safety hazards. Members of the public should not be allowed on the site except for authorised private contractors.	At commencement	Fencing and access control in place at commencement	JE50/WMP/001~ Non-mineral waste management; E7 - Environment Standard~ Non-Mineral Waste Management; JA05/POL/001~ HSE Policy Strategies	Physical verification	Design team
105			As the landfill facility is located in a remote area with very little anticipated activity on and around the site it is considered much safer to house any mobile equipment or fuel at the main offices until such time full time security can be justified.	On-going	No plant, equipment or fuel storage at landfill site	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site; E7 - Environment Standard~ Non-Mineral Waste Management	Physical verification	Landfill operator
106			Appropriate supervision of dumping practises must be undertaken to ensure that every deposit is undertaken in a neat and tidy fashion and in accordance with the landfill development plan so to improve the efficiency of the landfilling operations.	On-going	Optimal deposition strategy implemented	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site; E7 - Environment Standard~ Non-Mineral Waste Management	Physical verification and discussion with landfill operator and relevant land filling manual	Landfill operator
107			Incoming vehicles must be checked at the gate of the facility and, after checking the type of waste in the vehicles directed to the appropriate dumping area.	On-going	Every vehicles load inspected and directed accordingly	Project recommendation	Physical verification	Landfill operator
108			All site equipment should be maintained in accordance with the manufacturer's instructions. Copies of the equipment instruction booklets should be available on site for reference.	On-going	All plant and equipment is sound conditions	Project Recommendation	Physical verification	Landfill operator
109			Possible example emergency scenarios should be displayed along with the flow chart and a list of actions and information common to all emergencies should be provided. This list would include detail like: • Names of persons involved in dealing with and the name of the person in control of an emergency • Emergency contacts (fire, police, ambulance, telephone number of any responsible person not on site) • Flow of information (who should be notified and when)	On-going and as required	Decision tree of possible emergencies scenarios posted at guard house and other appropriate locations on the site	E7 - Environment Standard~ Non-Mineral Waste Management; JH50/COP/032~ The role of an OHSE representative; JH50/COP/025~ Safety Training Courses	Physical verification	Landfill operator, OHSE and Risk Management; Disaster Management Teams; HSE Department
110		Monitoring and record keeping allowing for decision making regarding management	A daily activity summary showing the amount of waste landfilled, the daily cover used and machine and man hours, should be completed by the site supervisor.	Daily	Daily records up-to-date and accurate	E7 - Environment Standard~ Non-Mineral Waste Management; JH50/COP/032~ The role of an OHSE representative	Records	Landfill operator

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111		practices and the future land filling operations.	In terms of the Minimum Requirements and to ensure adequate environmental protection, a long term water quality monitoring programme for the site is required. This would involve background analyses, routine detection monitoring, investigative monitoring and post closure monitoring.	On-going and as required	Water monitoring programme established, monitoring points and boreholes established	JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management	Water monitoring programme established, monitoring points and boreholes established	HSE Department
112			Areas of the site that have reached the final level and have been finally covered should be monitored for settlement	*Ad hoc*	Routine settlement monitoring and records retained	JA65/MSP/001~ Monitoring and Measurement	Settlement monitoring records	Landfill operator and HSE Department
113			The rate of filling of the site should be monitored by surveying the site at three monthly intervals to determine the rate of airspace utilisation especially as in some cases excessive cover material is used leading to the depletion of valuable airspace.	Three months	Surveys undertaken every three months and calculations made and checked against forecasts	JA65/MSP/001~ Monitoring and Measurement	Survey records	Landfill operator and HSE Department
114			Daily records of the volumes and types of waste entering the site should be kept. A general record of the construct of the landfill should also be developed through records relating to location of dumped loads.	Daily	Volume and waste type records generated and retained	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure	Records	Landfill operator and HSE Department
115			The site should be kept clean and tidy at all times. Part of the duties of the site staff should be regular site maintenance activities. The following items should be regularly inspected, once a week for example, and problems reported so that repairs can be undertaken: • Site fencing and security gates. • Access road. • Buildings. • Fixed equipment.	Daily and *ad hoc*	The site should be neat and tidy, all amenities should be in good working order	JA65/MSP/001~ Monitoring and Measurement; JH50/COP/001~ Housekeeping Inspections	Physical verification	Landfill operator and HSE Department
116			It is important to accumulate and maintain a database of extraordinary events occurring on site which may be linked to emergency occurrences.	*Ad hoc*	Events register should be retained at the landfill site and completed whenever an abnormal event occurs	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; JA40/MSP/003~ Document Control Procedure	On site register	Landfill operator and HSE Department
117		Minimise the volume of waste going to the Rössing General Landfill site to minimise its footprint and reduce the long term or post closure management	All general waste should be sorted at the point of origin through the use of colour coded waste receptacles, waste sorting facilities should be established at all temporary storage or transfer areas. All recyclable wastes should be removed and sent to suitable recycling agents.	Daily	Separated vessels provided at the various facilities and used appropriately	E7 - Environment Standard~ Non-Mineral Waste Management	Physical verification	Facility manager and HSE Department

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118		implications.	No vegetative material or non-deleterious organic or mineral waste material shall be disposed of in the landfill site, but rather stockpiled for later use as mulch materials in rehabilitation operations. It is strongly recommended at this early stage of the landfill facility that composting only be considered once the landfill is operational and a good understanding of the waste and composting market has been achieved.	*Ad hoc*	Without unwarranted exceptions	E7 - Environment Standard~ Non-Mineral Waste Management	Waste disposal record sheets	Landfill operator and HSE Department
119			All waste placed at the landfill shall be placed in layers and be adequately compacted to conserve landfill airspace. All hollow items, such a packaging or other vessels, should be crushed to reduce volume. The waste should be built up in shallow layers, no more than 250 - 300 mm deep at a time, so that compaction is maximised. The daily work area should be kept to a minimum in order to conserve cover material.	Daily	Without unwarranted exceptions	E7 - Environment Standard~ Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Operations observations	Landfill operator and HSE Department
120			Building rubble or similar high density inert materials destined for the landfill should be stockpiled off to one side and used as cover material, as opposed to importing cover material for that purpose.	*Ad hoc*	All suitable cover wastes stockpiled for this purpose	E7 - Environment Standard~ Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Inspection of the landfill site, verify cover stockpiling area. Inspect landfill waste type/volume records.	Landfill operator and HSE Department
121		Management and controlling landfill gas emissions and odour problems.	Should an odour problem develop at the landfill site, Rössing Uranium should undertake the following actions: • spreading hydrated lime over newly filled or saturated wastes; and • in the long term, flaring of landfill gas.	*Ad hoc*	Odour problems are identified and addressed where appropriate and before deterioration	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site; E2 - Environment Standard~ Air Quality Control; B1 - OH Standards~ Particulate and gas or vapour exposures	Odour around landfill within acceptable limits	Landfill operator and HSE Department
122			Although not anticipated, animal carcasses should be buried on site and covered with lime should it be encountered?	*Ad hoc*	Without unwarranted exceptions	E7 - Environment Standard~ Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Review waste volume/type record sheets	Landfill operator and HSE Department
123			All waste is to be covered at the end of the working day and no waste should be left uncovered for a period greater than 24 hours.	Daily	Waste covering and compaction operations to occur daily	E7 - Environment Standard~ Non-Mineral Waste Management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification	Landfill operator and HSE Department
124			Fridge and freezers should have their coolant removed and recycled as the gas used depletes the ozone layer.	*Ad hoc*	Without unwarranted exceptions	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site; E2 - Environment Standard~ Air Quality Control; B1 - OH Standards~ Particulate and gas or vapour exposures; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Landfill wast records	Landfill operator and HSE Department

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125			Stormwater control systems must be routinely inspected and maintained to minimise the volume of water entering the landfill site. Where water is noticed to accumulate, measures to illuminate the pooling of water shall be initiated. No waste should be dumped into standing water as this is shown to increase noxious gas emissions and associated odour problems.	Monthly	Without unwarranted exceptions	E10 - Environment Standard~ Water Use and Quality Control; JA65/MSP/001~ Monitoring and Measurement	Physical verification	Landfill operator and HSE Department
126			All drainage structures such as manholes, inlet/outlet structures, channels etc., should be inspected to ensure functionality at all times. Attention should be given to control erosion.	Monthly	Without unwarranted exceptions	E10 - Environment Standard~ Water Use and Quality Control; JA65/MSP/001~ Monitoring and Measurement	Physical verification	Landfill operator and HSE Department
127			Under certain weather conditions, during exceptional storms for example, it may not be possible to use the normal cell being filled. A cell near the entrance of each lift should be designated for use during these conditions. The cell shall operate on a surface, which is of course material and well drained, such as builders' rubble or mine blast material.	*Ad hoc*	Alternative disposal cell retained near landfill entrance and all weather access maintained	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management	Physical verification	Landfill operator and HSE Department
128		Minimise the environmental and health risks associated with the general landfill site.	Generally all difficult types of waste should not be located near the outer side, base, or surface of the landfill, a buffer of at least 5 m of other waste should be provided between the difficult waste and the boundary of the fill. Tyres should be cut up as they have a tendency to rise to the surface if left intact.	*Ad hoc*	All difficult waste items disposed of in accordance with management action	E7 - Environment Standard~ Non-Mineral Waste Management JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Landfill wast records	Landfill operator and HSE Department
129			Extreme care to be taken when working with Leachate to minimise contact with skin. Protective equipment such as rubber gloves and boots should be worn.	*Ad hoc*	Appropriate PPE in use at all times	JK65/PRD/003~ Disposal of Contaminated Items; JH50/COP/031~ Personal Protective Equipment	Physical verification and safety inspection reports and findings	Landfill operator and HSE Department and H&E officer
130			No medical waste and potentially hazardous waste containing sharp materials (needles, blades, contaminated glass etc.) shall be disposed at the landfill.	Daily, *ad hoc*	Without unwarranted exceptions	JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/010~ Monitoring and identification of contaminated Items	Landfill waste records	Landfill operator and HSE Department / safety officer
131			Concrete bunded area is to be constructed to ensure that any spillage occurring during unloading and packaging is contained and collected for treatment and safe disposal on the landfill. Surface water to be kept out of the waste body – to be drained away from waste	On-going and as required and as required	Without unwarranted exceptions	JK65/PRD/003~ Disposal of Contaminated Items JK65/PRD/007~ Transport of Contaminated Items; JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Physical verification	Landfill operator and HSE Department and Design and Project Planning Team
132			All areas of the site outside the landfill should be kept free of litter. As a minimum, the site should be inspected every week to ensure that this is carried out.	Daily / *Ad hoc*	No litter beyond landfill fence lines	JH50/COP/001~ Housekeeping Inspections; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical inspection	Landfill operator and HSE Department

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133			As a general guide the wastes described as follows should not be landfilled: • Waste with high percentages of volatile organic content; • Waste with high percentages of aromatic, halogenated and non-halogenated compounds; • Wastes with high percentages of metals, especially arsenic, cadmium, lead, mercury and selenium; • Wastes with a high percentage of cyanide and sulphide; • Powdery hazardous waste that may cause dust problems in and around the landfill; • Large amounts of waste with very low shear strength that may preclude settlement particularly on the final lifts, near the surface (for example sewage sludge with a high moisture content); and • Waste with high percentages of liquid that may generate too much leachate (for example tankers of liquid waste).	*Ad hoc*	Without unwarranted exceptions	JK65/PRD/010~ Monitoring and identification of contaminated Items; E5 - Environment Standard~ Hazardous Material and Contamination Control; E7 - Environment Standard~ Non-Mineral Waste Management; E8 - Environment Standard~ Mineral Waste Management; JE50/WMP/001~ Non-mineral waste management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Landfill waste records	Landfill operator and HSE Department
134			All hazardous wastes, regardless of origin must be sent to the hazardous landfill cell, this includes the following: all households hazardous material e.g., neon light bulbs, batteries and paints or detergents, should be placed in appropriate containers thus allowed for further processing by the Mine. (contaminated waste less than 100 becquerels per g (Bq/g) and total activity less than 4 kBq (0.1uCi), may be disposed as waste in a hazardous waste landfill.	Daily / *Ad hoc*	Without unwarranted exceptions	JK65/PRD/010~ Monitoring and identification of contaminated Items; E5 - Environment Standard~ Hazardous Material and Contamination Control; E7 - Environment Standard~ Non-Mineral Waste Management; E8 - Environment Standard~ Mineral Waste Management; JE50/WMP/001~ Non-mineral waste management; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Landfill waste records	Landfill operator and HSE Department
135			Covering of the waste is the most important requirement. Should vermin infestation occur the public health department should be contacted and pesticides applied. Personnel need to be trained in pesticide application and protective clothing should be worn. The rodent control officer should be contacted should these pests become a nuisance. It will be necessary for a Hazard Rating System, perhaps according to the United States EPA's methodology, to be drawn up.	*Ad hoc*	Vermin populations kept within acceptable tolerances. A preventative approach shall however be adopted as far as practical	JA65/MSP/001~ Monitoring and Measurement; JH50/COP/025~ Safety Training Courses; JA30/MSP/013~ Identification of training needs and training methods	Physical verification	Landfill operator and HSE Department

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
136			Health and safety matters are the responsibility of all members of the staff. A safety officer should be appointed to ensure that safe procedures are being adopted. The safety officer may be the site supervisor of his/her immediate superior. A safety plan should be compiled and displayed for all staff to follow. The safety plan should cover the following topics: • No smoking on the site • Awareness of vehicle movements particularly on or near the working face • Protective clothing requirements • Keeping the site clear of mud and rubbish • Dust suppression • Ensuring that vehicles at the working area have a firm riding surface • Ensuring the stability of permanent and temporary embankments • Fire prevention and control procedures • First aid and accident procedures • Any other applicable working regulations • Dangers of landfill gas and leachate It will be necessary to train both the supervisors and operatives in safety matters.	On-going and as required	Health and safely plan available on site and reviewed annually	JA05/POL/001~ HSE Policy Strategies; JH50/COP/032~ The role of an OHSE representative; JH50/COP/025~ Safety Training Courses; JH50/COP/023~ 28.5(b) Appointment of Responsible persons; JH50/COP/O22~ Appointment of Safety Superintendent	Up-to-date health and safety plan and safety inspection records	Landfill operator and HSE Department / safety officer
137			Care must be taken to limit the noise created at working face. Scheduling the stockpiling of the cover material during a time when the off-loading of the collected waste is not taking place, should aid in minimising the noise. The compaction of the waste and the spreading of the cover material can then take place. The spreading of the cover material should also be arranged when the disposal vehicles are off site.	Daily	Noise generated by operations is within Rössing Standards	JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey	Physical verification and environmental noise monitoring	Landfill operator and HSE Department
138			To reduce slope erosion by surface waters, it is considered expedient to place cut-off drains at the top of permanent cut slopes. Most of the impacts would be mitigated if the waste is covered with material (soil) and compacted with the final surfaces and water courses or drainage pathways sloped away from the waste body.	On-going and as required	Stormwater controls are adequate in design and function and serve to minimise erosion	E10 - Environment Standard~ Water Use and Quality Control; Project Recommendation	Physical verification	Landfill operator and HSE Department
139			All site roads should be maintained and potholes filled (Heavy wear and tear on collection vehicle tyres with a high incidence of punctures is a feature of landfill operations).	Monthly and *ad hoc*	Roads are in a safe and acceptable condition	C3~ Vehicles and Driving	Physical verification	Landfill operator and HSE Department

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
140			All plant and equipment should receive regular maintenance and should be operated in accordance with their design specifications. Daily inspections of plant and equipment shall be undertaken by operators to ensure the equipment in a good state of repair. At the end of each week all equipment should be cleaned. Windows, rear view mirrors and lights should be kept clean at all times.	Inspection undertaken daily, routine maintenance according to manufacturer's specification and repairs as required.	All plant inspected daily, all maintenance and repairs up to date	Project recommendation; JA65/MSP/001~ Monitoring and Measurement; C3~ Vehicles and Driving; JH50/COP/018~ Machine Guarding	Vehicle inspection sheets, inspection of plant and equipment	Landfill operator and HSE Department
141			Implement management actions to mitigate the visual impact of windblown materials carried from the proposed waste disposal site, including daily cover of the waste, the use of moveable litter screens and regular clean-ups in and around the site.	On going	No litter outside landfill fence line	B1 - OH Standards~ Particulate and gas or vapour exposures; E2 - Environment Standard~ Air Quality Control	Physical verification	Landfill operator and HSE Department
142			Implement management actions to reduce occupational health and safety risks at the waste disposal site, including the provision and use of the required personal protective equipment and improvements to the current emergency response plan.	On-going	Without unwarranted exceptions	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; JH50/COP/031~ Personal Protective Equipment	Safety inspection reports and physical verification	Landfill operator, HSE Department and H&E and safety officer
143			Suitable screens or alternative measures should be provided to collect windblown refuse, paper and plastic:	On-going and as required	Without unwarranted exceptions	Project recommendation	No litter beyond landfill fence lines	Landfill operator and HSE Department
144			The concept is to fill the site in phases so that areas can be completed and returned to a vegetated state or other rehabilitated state as soon as possible after filling has been completed. Concurrent rehabilitation should therefore be planned into the landfill development strategy to enhance rehabilitation success.	On-going	Concurrent rehabilitation opportunities maximised through planned phase lifts	Project recommendation	Physical verification and landfill plan of operations	Landfill operator and HSE Department
145		Minimise the environmental and health risks associated with the hazardous landfill cell.	Contaminated waste more than 100 becquerels per g (Bq/g) or > 0.4 Bq/cm^2 (averaged over 300 cm^2) may have to be disposed in the tailings impoundment for now and as such may not be disposed in any landfill.	*Ad hoc*	Without unwarranted exceptions	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress); B4 - OH Standards~ Hazardous substances	Landfill waste records	Landfill operator and HSE Department

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146			Depending on the mixture of wastes disposed of in the hazardous waste cell, it is likely that landfill gas could be generated. This must be monitored and if landfill gas is detected in significant quantities or concentrations, an appropriate level of gas management should be determined on the basis of a risk assessment. The following features could be incorporated in such a system: • a containment system to retain gas within the site and prevent off-site migration • a system for landfill gas collection, utilisation or flaring with adequate back-up facilities • a separate system to control gas migration at the site perimeter, operating separately of gas collection from within the waste body • use of gas monitoring boreholes (probes) outside the waste boundary as safe practices to avoid hazardous concentrations of gases at temporary or permanent working area of the site.	Monitoring to occur monthly, risk assessment and mitigation measure implement if required	Landfill gas maintained with acceptable standards	JA65/MSP/001~ Monitoring and Measurement; E2 - Environment Standard~ Air Quality Control	Environmental monitoring records	Landfill operator, HSE Department and safety officers
147			Wastes, which should, under no circumstances, be allowed onto the site in any form, are: • Strong Acids and Alkalis (these should be diluted to a pH of 8-9); • PCBs; • Explosive materials; • Compressed gases; and • Radioactive material. As per RSA Minimum Requirements Class 7, Radioactive wastes, are covered by the Atomic Energy Act, 1967, (Act 90 of 1967) and the Hazardous Substances Act, 1973 (Act 15 of 1973); their disposal in a landfill is PROHIBITED. Only those radioactive wastes defined as "inactive", i.e., with a specific activity less than 100 becquerels per g (Bq/g) and total activity less than 4 kBq (0.1µCi), may be disposed as waste in terms of the RSA regulations.	Daily / *ad hoc*	Without unwarranted exceptions	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/010~ Monitoring and identification of contaminated Items; ; E7 - Environment Standard~ Non-Mineral Waste Management; E8 - Environment Standard~ Mineral Waste Management; E5 - Environment Standard~ Hazardous Material and Contamination Control; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site; B4 - OH Standards~ Hazardous substances	Landfill waste records	Landfill operator and HSE Department

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
148	SJ OPEN PIT: Water Management	Minimise water use, measure water abstraction and implement reticulation systems.	Rössing Uranium must continue the active identification, evaluation, design, and implementation of suitable water conservation initiatives.	Operational phase	Year on year reduction in water consumption per production unit	JE05/STR/001~ Rössing Water Strategy; JE50/OWM/002~ Water Balance Procedure; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; E10 - Environment Standard~ Water Use and Quality Control	Water usage	H&E and Safety Officers and Sustainable Development
149			Wherever possible and in all facilities, the ambient water quality will be maintained or restored by active or passive measures. Remedial action is required within the seepage plume if the water quality deteriorates to such an extent that the ecology is affected.	All facilities, throughout the operational phase	Water quality to remain stable	JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management	Water quality monitoring data	Rössing Uranium Environmental Coordinators and OHS&E Officers
150			Recycled water for dust control purposes to be used at the fine crusher and processing plant.	Operational phase	100% dust suppression water from recycled source	JE50/OWM/003~ Water Recycling and Re-Use; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling	Water usage statistics and routine OHSEC monitoring and reporting.	Plant Manager, H&E and Safety Officers and Water Management
151			Dust suppression operations to be carefully managed and continually optimised to ensure that water is used efficiently and that spraying regimes are modified according to climatic conditions and seasonal variances. Rössing Uranium should continue to increase the efficacy of the water used for dust suppression purposes through the use of chemical dust suppressants.	Operational phase	Achieved dust suppression requirement whilst maintain water use efficiency as when compared with annual production data.	JE50/OWM/003~ Water Recycling and Re-Use; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling	Water usage	H&E officer and Pit Foreman
152		Minimise deterioration in aquifer water quality, related to dome disposal site.	Ensure that dust suppression spraying is optimised, thus minimising the volume of recycled wastewater infiltrating the ground.	Operational phase	Evaporation per square meter per day to exceed average dust suppression spraying per square meter per day	JE50/OWM/003~ Water Recycling and Re-Use; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling	Annual dust suppression volume < Annual rate of evaporation	H&E officer and Water Management
153			SJ pit should be designed with sufficient storm water controls and retention areas in place, to ensure that storm water is directed into the pit or cut-off trench to prevent any uncontrolled runoff from entering the Dome Gorge.	On-going	All major natural and artificial waterways are diverted away from open pit, or dammed	JE05/STR/001~ Rössing Water Strategy; JE50/MSP/001~ Water Quality Management; E10 - Environment Standard~ Water Use and Quality Control	Physical verification, routine OHSEC monitoring and reporting.	H&E officer and SJ mining operations manager
154			Water that is potentially contaminated must be prevented from being released into the Khan River.	Operational phase	Potentially contaminated water sources to be channelled into evaporation ponds. All seepage control systems to be instated and maintained. Routine monitoring to confirm efficacy	JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE05/STR/001~ Rössing Water Strategy; JE65/OWM/001~ Khan River Water Supply	Physical verification, routine OHSEC monitoring and reporting. Seepage control system monitoring data. Water quality sampling in the downstream of the Khan River	H&E Officer and Water Management

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
155			Seepage control and recovery systems in Dome Gorge must be adequate in collecting the potentially contaminated seepage.	Operational phase	No difference in upstream and downstream water quality of the Khan River (10 km distance), allowing for natural water quality deterioration over the specified distance	JE50/SOP/002~ Seepage Control Systems	Seepage control system water volume monitoring data. Water quality sampling in the downstream of the Khan River	Water Management
156		Monitor the effect on groundwater quality.	Downstream monitoring of groundwater quality should continue in line with existing environmental monitoring programme.	Operational phase	Monitoring to occur at defined intervals	JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/001~ Khan River Water Supply; JE65/OWM/004~ Water Quality Monitoring	Water monitoring data	Water Management
157			All monitoring boreholes, including those sunk previously, shall be monitored monthly for changes in water level. Any significant changes shall be reported to management without delay so that intensified monitoring or corrective actions can be initiated without delay, if needs be.	Operational phase	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; JA45/MSP/002~ Communication and Reporting	Physical verification and monitoring records	Water Management
158			All monitoring boreholes water quality shall be analysed at quarterly intervals.	On-going and throughout operational phase	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; E10 - Environment Standard~ Water Use and Quality Control	Physical verification and monitoring records	Water Management
159	SJ OPEN PIT: Dust, Radon and Green House Gas Emissions	Expand the dust monitoring systems.	Adequate number of fallout dust monitors must be established to cater for the expanded mine activities.	On-going and as required	Dust monitors for the assessment of SJ open pit are maintained	JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling; JE/50/PIN/002~ Multi-Vertical Sampler procedure; E2 - Environment Standard~ Air Quality Control; JA65/MSP/001~ Monitoring and Measurement	Physical verification and monitoring records, routine OHSEC monitoring and reporting	H&E Officer
160			It would be useful to monitor physical quantities of dust and its deposition in areas surrounding the mining areas.	Operational phase	Without unwarranted exceptions	Project recommendation; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling; JE/50/PIN/002~ Multi-Vertical Sampler procedure; E2 - Environment Standard~ Air Quality Control; JA65/MSP/001~ Monitoring and Measurement	Physical verification and monitoring	H&E officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
161			Personal and area radiation monitoring program must continue as a result of the expanded mining operation in the SJ open pit.	On-going and implemented throughout operational phase	Radiation monitoring procedure for SJ established and maintained	JA65/MSP/001~ Monitoring and Measurement; JK65/PRD/001~ Radiation Protection when using Sealed Radioactive sources; JK50/COP/006~ Code of Practice for protection against ionising radiation; JK65/PRD/019~ The Monitoring of Personal Radiation Dose; JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard; JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination; JK65/PRD/016~ Area Survey for External Gamma Radiation; B5 - OH Standards~ Radiation	Verify paperwork, HSE management system monitoring records	Safety officer and H&E officer
162		Reduce dust emissions from gravel roads.	Construct only the minimum number of roads of the minimum length and breadth and all access and haul roads and traffic control initiatives are to be maintained so as to minimise the total road surface area.	Operational phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	Project recommendation; C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Final road design with associated design motivation	Design and Project Management Team with inputs from Environmental Management and Health and Safety
163			Enforce an appropriate speed limit on gravel roads, so as to reduce the disturbance and entrainment of dust from road surfaces. Controls to be put in place to check adherence to the speed limit.	Operational phase	Without unwarranted exceptions	Project recommendation	Physical verification and routine OHSEC monitoring and reporting. Routine speed assessments dist. vs. time	H&E and Safety Officer
164			Preventing build-up of fines on road surfaces. Haul trucks should not be overloaded and will therefore not cause spillages en route to the Ore Crusher. Road surfaces should be maintained in a good state of repair and where necessary, wearing course should be replaced and properly compacted. Where a build-up of fines on the road occurs this should be cleared.	Operational phase	Intermittent, excessive plumes of dust not observed	Project recommendation; JK65/PRD/007~ Transport of Contaminated Items	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer
165			Binding of dust on gravel road surface. All high traffic roads should be wetted regularly. Chemical dust suppressants assist in binding the dust. Particular problem areas should be hard surfaced or stabilised. Barricades could be erected along problem areas to reduce cross winds and road surfaces shaded to reduce water evaporation.	Operational phase	Dust levels remain within specified standards	JH50/COP/017~ Barricading and Demarcation; E2 - Environment Standard~ Air Quality Control; JE05/STR/001~ Rössing Water Strategy	Physical verification and routine OHSEC monitoring and reporting. Dust monitoring records	H&E and Safety Officer
166		Reduce the dust emissions caused through drilling.	All drilling rigs should be fitted with suitable water or pneumatic dust suppression devices.	Operational phase	Dust avoidance attachments to be fitted and operation at all times on all rigs	E2 - Environment Standard~ Air Quality Control; JE05/STR/001~ Rössing Water Strategy; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer and rig operator

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
167			All dust suppression mechanisms should be maintained in a good state of repair and in use whenever equipment is operated.	Operational phase	Dust avoidance attachments to be fitted and operation at all times on all rigs	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer, SJ manager and rig operator
168			Where dust suppression mechanisms on the drilling rigs are insufficient, water should be continually sprayed into the drill hole.	Operational phase	dust emissions from drilling rigs should be visibly acceptable in the opinion of the H&E and Safety Officer	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer, rig operator and SJ manager
169		Reduce the dust caused by blasting.	Where possible, blasting should be carried out in the early mornings, the lower wind velocities and thermal stratification in the pit should limit the movement of dust from the pit and assist in allowing the dust to settle quickly.	Operational phase	as a guide, blasting should be undertaken before 10h00 in the mornings	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer, SJ and blasting manager
170		Reduce the volume of greenhouse gas emissions associated with the SJ mining operations.	All drilling rigs, transport, earthmoving equipment to be maintained in a good and efficient working condition and the use of energy efficient motors to be promoted in haul trucks.	Operational phase	Equipment serviced at specified intervals and all *ad hoc* maintenance conducted as required	C3~ Vehicles and Driving; JH50/COP/018~ Machine Guarding	Operator equipment checklist, routine OHSEC monitoring report	Operators, Mining operation manager / contractor, H&E and Safety officer
171			Mining operation to be conducted optimally so as the reduce haul distance, double handling, haul to waste and unnecessary travel of equipment.	Operational phase	Mining operations planning conducted ahead of operation and continuous supervision day-to-day operations	Project recommendation	Mining plan of operations, production reports, quantity surveys, equipment usage. As well as general observations in routine OHSEC monitoring reports and	Mining operation manager / contractor, Rössing Uranium counterpart and H&E officer
172			Promote energy efficiency through training awareness campaigns – include recommendations that trucks and support vehicles are to be switched off when idle.	Operational phase	Training materials and course attendance	C3~ Vehicles and Driving; JA30/MSP/013~ Identification of training needs and training methods	Physical verification of training materials and course attendance	Contractors, H&E Officer
173			Continue to investigate the use of fuel additives to reduce fuel consumption and consider energy efficiency when purchasing new equipment.	Operational phase	Optimal fuel usage	Project recommendation	Physical verification and routine monitoring and equipment register	Mining Operation Manager and H&E Officer
174	SJ OPEN PIT: Noise and vibration, including blasting noise and vibration	Minimise the amount of noise and vibration associated with SJ operations.	Blasting patterns, charge calculations, early pre-blast warnings, and correct stemming of blast holes are implemented optimally to reduce potential negative noise and vibration impacts.	Operational phase	Industry best practice	E6 - Environment Standard~ Noise and Vibration Control; B2 - OH Standards~ Hearing conservation; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; JK65/COP/011~ Human Vibration Protection	Physical verification and routine OHSEC monitoring and reporting. Vibration monitoring results are within acceptable limits	Blasting Manager, SJ manager, Safety Officer
175			The quantity of blast holes detonating simultaneously are to be minimised and stemmed properly with crushed aggregate, and ensure that stemming lengths are not less than the minimum required.	At every blast	Blasting holes optimised in terms of numbers and appropriately stemmed	Project recommendation; E6 - Environment Standard~ Noise and Vibration Control; B2 - OH Standards~ Hearing conservation	Physical verification	Blasting Manager, SJ manager, Safety Officer
176			Consideration should be given to the wind direction ahead of each blast, where this may result in excessive noise or vibration to neighbours blasting should be delayed.	At every blast	No blasting should occur during high winds toward Arandis	Project recommendation; E6 - Environment Standard~ Noise and Vibration Control	Public complaints register	Blasting Manager, SJ manager, Safety Officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
177			All new plant and equipment as well as existing equipment should go through a noise survey at regular intervals. Where required, maintenance work to silence machines should be undertaken.	Maintain existing systems and follow-up surveys every three months	Record of plant noise surveys retained and corrective actions taken	JA65/MSP/001~ Monitoring and Measurement; E6 - Environment Standard~ Noise and Vibration Control; C3~ Vehicles and Driving	Noise survey records	HSE Department and Safety officer
178			Strict control of blast loading practices should include the following: • minimum confinement of explosives with respect to both stemming heights (minimum height of 30 times the blast hole diameter) and front row burdens, are to be maintained at all times; • Downloading of front row blast holes if minimum burden requirements are not met; • Free faces should be checked to ensure there are no areas which are under burdened; • Accurate loading of charge weights ensuring holes are not overloaded; • Depth to the top of the explosive column to be checked, with explosive product to be removed from overloaded holes prior to adding stemming material; and • Appropriate stemming material (10% of blast hole diameter aggregate size) to be used.	On-going	Adequate supervision and quality control exercised.	Project recommendation	Task observation	Blasting Manager, SJ manager, Safety Officer
179		Ensure that detailed monitoring of blasting noise and vibration is undertaken and records held.	Every blast should be monitored for noise and vibration.	*Ad hoc*	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; E6 - Environment Standard~ Noise and Vibration Control	Monitoring records	Blasting Manager, SJ manager, Safety Officer
180			Information generated from the monitoring programme should be reviewed and used to optimise blasting operations in terms of efficiency, effectiveness, noise, and vibration.	*Ad hoc*	Noise and vibration generated from blasting should diminish through time	JA65/MSP/001~ Monitoring and Measurement; JA45/MSP/002~ Communication and Reporting	Noise and vibration monitoring	Blasting Manager, SJ manager, Safety Officer
181			The four monitor positions will cover the private installations, i.e., the Arandis airport, Arandis town, and the farmers across the Khan river.	On-going and as required. Maintain existing systems	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement	Monitoring records and physical verification	Blasting Manager, SJ manager, Safety Officer
182			Blast monitors are to be installed and used in accordance with the manufactures guidelines and the noise and vibration specialist's recommendations.	Maintain existing systems. On-going and as required	Without unwarranted exceptions	Project recommendation; JA65/MSP/001~ Monitoring and Measurement; JK65/PIN/005~ Management of Health Instruments and Equipment	Monitoring records and physical verification	Blasting Manager, SJ manager, Safety Officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
183			The following will have to be taken into account and considered when monitoring blasting operations on a continuous basis. • A dedicated person or persons must be assigned the responsibility of operating and maintaining the equipment. • When fixed monitors are installed, data should be downloaded more frequently to observe correctness and activity recorded. This will assist in making sure that false triggers are kept to a minimum. Analysis must be done as soon as possible and relevant information forwarded to the chain of command as defined by the Rio Tinto standards. • Ground vibration and air blast levels recorded greater than specified limits should be reported immediately to the necessary persons, who should be included, the blasting operations team. The exact process from this point cannot be specified as the Rio Tinto standards will define exact course of actions. Blasting operations should be halted and cause of any exceeding of levels investigated immediately. Proper record keeping of blasting and seismograph data will ensure that investigations can be conducted speedily, and without major interference to the production process. • Blast monitors are used to establish compliance with regulations and evaluate explosive performance. Laws and regulations have been established to prevent damage to property and injury to people. The disposition of the rules is strongly dependant on the reliability and accuracy of ground vibration and air blast data.	*Ad hoc*	Without unwarranted exceptions	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; E6 - Environment Standard~ Noise and Vibration Control; JH50/COP/023~ 28.5(b) Appointment of Responsible persons; JH50/COP/032~ The role of an OHSE representative	Work observations and relevant records	Blasting Manager, SJ manager, Safety Officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
184			Strict control of blast loading practices should include the following: • minimum confinement of explosives with respect to both stemming heights (minimum height of 30 times the blast hole diameter) and front row burdens, are to be maintained at all times; • Downloading of front row blast holes if minimum burden requirements are not met; • Free faces should be checked to ensure there are no areas which are under burdened; • Accurate loading of charge weights ensuring holes are not overloaded; • Depth to the top of the explosive column to be checked, with explosive product to be removed from overloaded holes prior to adding stemming material; and • Appropriate stemming material (10% of blast hole diameter aggregate size) to be used.	*Ad hoc*	Without unwarranted exceptions	Project recommendation	Work observations and relevant records	Blasting Manager, SJ manager, Safety Officer
185			In all cases it is recommended that fixed boxes are installed and used for the monitoring position. This will eliminate the variances in fixing the sensors to the ground. In fixed installations this is a requirement for the protection of the seismograph and also for stability in the connection over time. Requirements in order to facilitate a fixed monitoring station are as follows: • A steel box of approximate dimensions 500 x 500 x 300 mm with lockable lid; • Steel box must have a pipe extension of 35 mm diameter for microphone placement; • Concrete slab with dimensions 550 x 550 x 50 mm, with an 8 mm pin cemented for fixture of the geophone assembly; • If modem route is selected the following will also be required: Modem and antennae, battery supply cable, data card from cellular supplier; • Batteries for field backup and solar panels (optional); • Battery chargers – batteries in the field are swapped out once a month; • Seismograph Software for general data download and communications; and • Office computer for download and data analysis.	On-going and as required	Fixed box stations established in accordance with recommendations	Project recommendation	Physical verification	Blasting Manager, SJ manager, Safety Officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
186			Overpressure shall not exceed 120 dBL for any blast and shall not exceed 115 dBL for more than 5% of blast during a year.	At every blast	Meet the standards provided here	E6 - Environment Standard~ Noise and Vibration Control	Blasting records	Blasting Manager, SJ manager, Safety Officer
187			Where possible, material stockpiles should be placed so as to protect site boundaries from noise of individual operations. If a stockpile is constructed, it should be at a position and of such a height as to effectively act as a barrier to site noise at any sensitive area, if the line of sight calculations show this to be practicable. In particular, the erection of suitable earth berms around the permanent machinery can significantly reduce the noise by up to 15 dB.	On-going	Acoustic buffering stockpile practices utilised where possible and where required	E6 - Environment Standard~ Noise and Vibration Control	Physical verification	Blasting Manager, SJ manager, Safety Officer
188			Vibration shall not exceed 10 mm/sec for any blast and shall not exceed 5 mm/sec for more than 5% of blast during a year at the nearest sensitive receptor.	At every blast	Meet the standards provided here	E6 - Environment Standard~ Noise and Vibration Control	Blasting records	Blasting Manager, SJ manager, Safety Officer
189			It is recommended that blasting times are co-ordinated with other mines to ensure that the cumulative impacts of blasting are reduced.	At every blast	Optimise blasting schedule with other mines	Project recommendation; E6 - Environment Standard~ Noise and Vibration Control	Blasting schedules and records of correspondence	Blasting Manager, SJ manager, Safety Officer
190		Protect employees from noise exposure related health problems.	Employees are provided with and make use of suitable personal protective equipment and follow the appropriate health and safety procedures to limit their exposure to both noise and vibration within the SJ mining area and on-going vibration monitoring be done to check compliance.	Operational phase as required and linked to blasting schedule	OHS&E requirements and Rössing Uranium safety requirements	JH50/COP/031~ Personal Protective Equipment; JH50/COP/025~ Safety Training Courses; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; E6 - Environment Standard~ Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer, SJ Manager
191			A programme to notify potentially affected landowners and communities is to be implemented and blasts to preferably be scheduled on fixed times / days to limit the element of surprise.	Weekly	Blasting schedule to be posted to neighbouring landowners and communities.	Project recommendation	Proof of notification of potentially affected landowners and communities	H&E and Safety Officer, SJ Manager
192		Minimise the visual impact and landscape disfigurement of waste rock dumps.	To create the mountainous landscape, it is recommended that the lower benches are large, and smaller with more fragmented benches at the top, with the standard bench height utilised in the central elevations if safe and feasible from a geotechnical perspective.	On-going	Achieve organic mountainous type feature, consistent with the surrounds	Project recommendation	Physical verification	HSE Department and Operations Manager
193			Lighting of the pit and roads should be kept to the minimum required to allow for safe operation and down lighting is encouraged.	Operational phase	Safety requirements met, and no additional or unnecessary lighting occurring in the opinion of the Safety and H&E officer	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E Officer and SJ manager

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194			Suitable cover material should be sourced to cover the rock dumps on completion to ensure visual homogeneity with the surrounds.	Operational phase	All suitable overburden won through mining or from beneath new waste rock dump areas is stockpiled for this purpose	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E and Safety Officer and SJ manager
195			All substantial man-made structures and large plant and equipment should be painted a grey-brown colour to blend the surrounding landscape, so as to minimise visual contrast.	On-going	Acceptable in the opinion of the H&E Officer	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	H&E Officer and SJ manager
196	SJ OPEN PIT: Biodiversity	Reduce the impact of the expanded mining operations on biodiversity.	Acquire the necessary permits and expertise so as to undertake a transplant of red data species that would otherwise be destroyed.	On-going and as required throughout operational phase	Search and rescue operations complete before the commencement of operations where required	Project recommendation; JA05/COP/003~ Environmental Management System Code of Practice	Physical verification and routine OHSEC monitoring and reporting.	H&E Officer
197			All existing vegetation should be retained as far as possible to help control soil erosion.	*Ad hoc*	Optimise footprint and prevent site creep	Project recommendation	Physical verification and review of mitigation measures employed to achieve objectives	H&E Officer and SJ manager
198			During expansion operations, use any opportunities for destructive sampling of habitats and associated studies to inform and add to the existing database on high priority species; where possible, translocate and protect individuals of two plant species of concern (Adenia pechuelii and Lithops ruschiorum).	On-going and as required and *Ad hoc*	Biodiversity sampling undertaken ion areas to be cleared	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; E9 - Environment Standard~ Land-Use Stewardship	Biodiversity assessments / surveys	HSE Department and Biodiversity specialist
199			Include the two high priority reptile species (lizards: Pedioplanis husabensis, and Meroles sp) in future biodiversity surveys within and external to the impact site.	On-going and as required	Surveys to include additional indicator species	JA65/MSP/001~ Monitoring and Measurement; JA75/MSP/004~ Record-keeping Procedure; E9 - Environment Standard~ Land-Use Stewardship	Biodiversity assessments / surveys	HSE Department and Biodiversity specialist
200			Circulate biodiversity information with other mining companies, in order to address the cumulative impacts of uranium mining on impacted species with larger ranges (e.g. P. husabensis), and link Rössing Uranium's biodiversity database and information on biodiversity risks to the Central Namib Strategic Environmental Assessment.	*Ad hoc*	Information sharing with neighbouring mines to broaden understanding of regional biodiversity	JA75/MSP/004~ Record-keeping Procedure; JA65/MSP/001~ Monitoring and Measurement; JA45/MSP/002~ Communication and Reporting; JA45/MSP/007~ External Communications/Complaints	Correspondence	HSE Department and Biodiversity specialist
201			Use data from future biodiversity surveys to inform monitoring programme and adaptive management for the expansion project at Rössing Uranium, in order to avoid and minimise impacts on critical habitats and species.	On-going and as required	Biodiversity survey information reviewed and recommendation made regarding biodiversity monitoring programme	Project recommendation	Biodiversity assessments / surveys and biodiversity monitoring programme	HSE Department and Biodiversity specialist

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202			Encourage continued taxonomy and analysis of existing invertebrate material and museum collections from previous biodiversity surveys at Rössing Uranium, in order to further update and refine the list of species on conservation concern. Focus monitoring on spider and solifugids, applied to understanding the reasons underlying the low densities of these species (e.g., as recorded within the 2007 survey).	On-going and as required	Biodiversity survey information reviewed and recommendation made regarding biodiversity monitoring programme	Project recommendation	Biodiversity assessments / surveys and biodiversity monitoring programme	HSE Department and Biodiversity specialist
203			Identify and select indicator species for long-term monitoring of the impact of dust (5 km buffer from operational areas, pits, crushers, dumps and roads).	On-going and as required	Biodiversity survey information reviewed and recommendation made regarding biodiversity monitoring programme	Project recommendation; JA65/MSP/001~ Monitoring and Measurement	Biodiversity assessments / surveys and biodiversity monitoring programme	HSE Department and Biodiversity specialist
204			Commission specific studies on the ecological relationships between biological soil crusts and its component organisms and microfauna, and species at higher trophic levels (particularly invertebrates: spiders and scorpions).	On-going and as required	Established environmental monitoring programme	Project recommendation; JA65/MSP/001~ Monitoring and Measurement	Biodiversity assessments / surveys and biodiversity monitoring programme	HSE Department and Biodiversity specialist
205			Rössing Uranium must undertake monitoring and eradication of invader plant species throughout the operational phase.	On-going	Map and eradicate all alien invasive plants	JA65/MSP/001~ Monitoring and Measurement	Records and alien invasive plant mapping. Physical verification	HSE Department and Biodiversity specialist
206			Rehabilitation practices such as preserving and re-spreading topsoil, reseeding and replanting with indigenous species should be tested and site-specific protocols developed for particular habitats.	Operational phase	Trials conducted and results documented	Project recommendation	Physical verification and routine OHSEC monitoring and reporting.	HSE Department and SJ manager
207			Wherever possible topsoil and other suitable fine material should be stockpiled for later use in landscaping and rehabilitation.	Operational phase	All suitable materials retained in stockpile	Project recommendation	Physical verification	HSE Department and SJ manager
208		Assigning Rössing Uranium 's biodiversity and establishing suitable monitoring program.	Khan River Mountains and the south-east gneiss hills must be mapped for biodiversity / habitat.	Operational phase	Sufficiently comprehensive biodiversity maps produced	JA65/MSP/001~ Monitoring and Measurement;	Physical verification of biodiversity mapping and routine OHSEC monitoring and reporting.	HSE Department and Biodiversity Specialist
209			Institute long-term sampling and monitoring programme. Repeated sampling will be necessary, particularly in those mapping units that were only accessed along their margins, such as the Khan River mountains and south-east gneiss hills. Long-term collecting of animals, especially invertebrates, in particular biotopes will shed more light on the habitat requirements of those species that exist in the Rössing Uranium area.	Operational phase	Sufficiently comprehensive biodiversity maps produced	JA65/MSP/001~ Monitoring and Measurement;	Physical verification of biodiversity mapping and routine OHSEC monitoring and reporting.	HSE Department and Biodiversity Specialist

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210			Monitor the impacts of dust on micro-habitats and determine the physical quantities of dust and deposition in surrounding areas and associated features such as biological soil crusts, moisture below stones and rocks, and processes involved. Retain, if possible, biological soil crusts in areas that are to be disturbed, as it could assist in rehabilitation and restoration efforts.	Operational phase	Dust monitoring programme and retention of soil crusts	JA65/MSP/001~ Monitoring and Measurement;	Physical verification and OHSEC monitoring and reporting	HSE Department and Biodiversity Specialist
211			Rössing Uranium should re-analyse and update list of priority species on the basis of new taxonomic work on existing material.	On-going and as required and annual review	Updated indicator species lists and distribution mapping	JA65/MSP/001~ Monitoring and Measurement;	Updated indicator species lists and distribution mapping	HSE Department and Biodiversity Specialist
212			Update the proportion of the Rocky Hillsides habitat around Rössing (850 km^2) to be impacted as part of the expansion.	On-going and as required and annual review	Updated biodiversity map and mine expansion footprint	Project recommendation	Biodiversity mapping	HSE Department and Biodiversity Specialist
213	Waste Rock Dumps	Water management and preventing water pollution.	The application of erosion and sediment control measures such as evaporation paddocks where the runoff from the waste rock should directly impact the Khan river.	On-going and as required and as required	Prevent runoff entering the Khan River	JE65/OWM/001~ Khan River Water Supply; E9 - Environment Standard~ Land-Use Stewardship	Environmental monitoring of Khan River and physical verification of mitigation measures employed.	H&E, Safety Officer and Waste Rock Dumps Manager
214			The final pit geometry and waste rock dumps should allow for the runoff from the top of the dump to flow towards the pit.	On-going	All runoff from the Waste Rock Dumps should, as far as is possible, flow toward the SJ pit	Project recommendation	Topographical surveys of waste rock dumps, physical inspection of the stormwater control measures	H&E Officer and Waste Rock Dumps Manager
215			The waste rock dump sites should be controlled with the necessary seepage control systems to recover potential leachate from the waste rock dumps and prevent surface and ground water pollution.	Operational phase	Seepage control systems in place and functioning optimally	JE50/SOP/002~ Seepage Control Systems	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Waste Rock Dumps Manager
216			Leach column testing should continue for approximately a year or to a point where realistic predictions can be made concerning the quality of seepage from the bases of the dumps.	Operational phase	Leach column testing undertaken at intervals and used to predict long term seepage quality	JE50/SOP/002~ Seepage Control Systems; JA65/MSP/001~ Monitoring and Measurement	Results from leach column testing	HSE Department, H&E Officer and Waste Rock Dumps Manager
217		Minimising the visual impact associated with rock dumps during operational and post closure phases.	Dust suppression measures along haul roads and active dumping areas must be strictly implemented to minimise the production and mobilisation of fugitive dust emissions.	Operational phase	Dust levels must remain within specified standards	Project recommendation; JA65/MSP/001~ Monitoring and Measurement	Dust monitoring results and physical inspections	HSE Department, H&E and safety Officer and Waste Rock Dumps Manager
218			Within the parameters of safety, lights at night need to be strictly controlled and minimised to reduce light pollution into the surrounding areas.	Operational phase	Minimise light pollution as seen from key receptors	Project recommendation	Visual inspection and public complaints register	HSE Department, H&E and safety Officer and Waste Rock Dumps Manager

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219			A detailed height envelope study for the Waste Rock Dumps has been undertaken. Rössing needs to ensure that the final Waste Rock Dumps design is located as close as possible to the defined visual preference height specifications and design.	Operational phase	Final Waste Rock Dumps design as close as possible to the defined visual preference height specifications and design	Project recommendation	Physical verification, interim topographical surveys and comparison with planned design	HSE Department, H&E and safety Officer and Waste Rock Dumps Manager
220	Ore crushing plant: Health and safety considerations	Reduce health and safety risks by ensuring effective worker competence, training and awareness.	All new and existing staff that will work in the ore crusher itself should undergo an intensive induction course in health, safety, and environment.	On-going and as required	No employees allowed to work without having attended the induction training	JA30/MSP/013~ Identification of training needs and training methods; JH50/COP/025~ Safety Training Courses; JH50/COP/024~ Induction	OHSEC monitoring and reporting. Induction training attendance registers. Training register	Rössing Uranium Environmental Coordinators and OHS&E Officers
221			All workers should undergo a medical examination to ensure that they are physically fit, mentally capable and are assessed as being competent to undertake the tasks to which they have been assigned.	On-going and as required with the recruitment of new staff. Staff should be subject to reassessment every year	All staff have medical clearance certificates before commencing work	JH50/COP/026~ Permit to Work and Clearances System	Medical clearance certificates	OHS&E and Risk Management
222			Each staff member should also receive task-specific instruction and will be instructed on their terms of reference, which should clearly outline their duties and responsibilities, other pertinent health, safety, environmental and general protocols, as well as any HSE management system control procedures that have direct bearing on the area of operation.	On-going and as required with the recruitment of new staff.	Without unwarranted exceptions	JA05/POL/001~ HSE Policy Strategies	Physical verification, routine OHSEC monitoring and reporting. Training register	OHS&E and Risk Management. Training to be carried as [part of induction training
223			Rössing Uranium should commence with recruitment/ promotion and training of plant operational personal well in advance of the commissioning of the facility to ensure a suitable level of proficiency is achieved	On-going	No standard	JH50/COP/025~ Safety Training Courses; JA30/MSP/013~ Identification of training needs and training methods	Staff register	Rössing Uranium
224			Teams working in these areas should also receive *ad hoc* health, safety, and environment training in the form of toolbox talks to be held at least once a week.	Operational phase	Training requirements to be identified and addressed during regular toolbox talks	JH50/COP/025~ Safety Training Courses	Training register and OHSEC reports	Supervisors, plant manager's and H&E officers
225			An intense supervisory presence should be implemented during commissioning and for a period thereafter, to ensure that HSE management system protocols are clearly understood by the plant operational staff.	At commencement	Supervisory staff, plant managers and other technical staff to allocate the majority of their time to supervision of plant operations	JH50/COP/023~ 28.5(b) Appointment of Responsible persons; JH50/COP/O22~ Appointment of Safety Superintendent; JH50/COP/032~ The role of an OHSE representative	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager and all supervisory positions
226			All facilities should also to be fitted with the required health and safety warning and information signage that is required and suitable for such installations.	On-going	Safety signage to comply with Occupational Health and Safety legal requirements and relevant international standards	JA05/POL/001~ HSE Policy Strategies	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager

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227		Ensure adequate emergency procedures are in place to reduce the magnitude of the impacts in the event of an emergency.	Induction training should include detailed coverage of the emergency response and evacuation procedures.	Induction and task specific training and as required throughout the operational phase	Evacuation plans and emergency procedures to be compiled, key information to be posted prominently inside facility. Appropriate signage indicating exits, location of keys, alarms, fire extinguishers, etc., are to be placed, where appropriate in the facility	JH50/COP/024~ Induction; JH50/COP/025~ Safety Training Courses	Physical verification, routine OHSEC monitoring and reporting. Emergency evacuations drills to be held regularly	H&E, Safety Officer and Plant Manager
228			An evacuation plan should be developed and presented to the staff at each work station that will clearly identify the protocols to be followed in the event of an emergency, the location and functioning of the emergency escape routes and doors, and the emergency assembly areas.	Design phase and pre-operational-phase-commencement	Emergency plans and evacuation plans are complete before commissioning of the facility. Facility is constructed with the fire fighting equipment, escape route doors, etc.	JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management	Physical verification, routine OHSEC monitoring and reporting. Emergency evacuations drills to be held regularly	H&E, Safety Officer and Plant Manager
229			All emergency equipment and personal protective equipment should be pointed out and staff should be trained in their use.	Induction and task specific training and as required throughout the operational phase	All staff to must demonstrate where the necessary emergency equipment and PPE is and how to use it	JH50/COP/031~ Personal Protective Equipment; JH50/COP/025~ Safety Training Courses	Physical verification, routine OHSEC monitoring and reporting. Emergency evacuations drills to be held regularly	H&E, Safety Officer and Plant Manager
230			Induction training should include basic first-aid and fire-fighting training.	Induction and task specific training and as required throughout the operational phase	Basic first aid included as part of induction training, procedure to follow in the event of an accident or injury	JH50/COP/012~ First Responder Training; JH50/COP/025~ Safety Training Courses	Physical verification	H&E, Safety Officer and Plant Manager
231			Each work station should have a staff member that is trained in first-aid and another as a fire officer.	Operational phase	Without unwarranted exceptions	JH50/COP/O22~ Appointment of Safety Superintendent	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
232		Ensure a safe work environmental for employees and that exposure to occupational risks are minimised.	All working areas should have sufficient ventilation and lighting to ensure that workers can undertake their task in safety.	Design and operational phase	All operations are to be undertaken in adequately lit and ventilated environment	Project recommendation	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager
233			Personal protective equipment appropriate for the minimisation of occupational hazards of the task should be provided by Rössing Uranium and the use thereof by the employee should be mandatory.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager

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234			All impact hand tools employed in maintenance work shall be purchased according to the purchasing criteria for hand arm vibration.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment; JH50/COP/004 ~ Portable Electrical Equipment; JH50/COP/020~ Hand Tools; JK65/COP/011 ~ Human Vibration Protection; JK65/PRC/009 ~The Measurement of Hand-Arm Vibration; JK65/PRC/008~ The Measurement of Whole Body Vibration	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager
235			All workers working near radiation sources/sealed on the primary crusher must abide by work rotation schedules and work time restrictions as well as the prescribed shielding and the permit to work system.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment; JH50/COP/026~ Permit to Work and Clearances System; JK50/COP/006 ~Code of Practice for protection against ionising radiation; JK65/COP/007~ Protection against Ultra Violet Radiation; JK65/PRD/001 ~Radiation Protection when using Sealed Radioactive sources; JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination; JK65/PRD/016 ~Area Survey for External Gamma Radiation; JK65/PRD/019~ The Monitoring of Personal Radiation Dose, JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager
236			The ore crushing plant should have adequate access control and security measures in place to ensure only authorised, trained, or supervised individuals gain access to the facility.	Operational phase	All persons entering the plant premises to be verified	Project recommendation	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
237			All workers should have access to a sufficient quantity of safe potable water, and ablution and washing facilities within a reasonable distance of their working area.	Operational phase	Sufficient potable water is available and positioned close enough to the area of operation (25ℓ/person/day)	JE05/STR/001~ Rössing Water Strategy; JE50/MSP/002~ Freshwater Supply Management	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
238			All employees working outdoors and within the vicinity of the Ore crushing Plant should wear suitable dust masks to limit the inhalation of respirable dust as well as hearing protection to avoid exposure to high noise levels arising from the plant operation.	Operational phase	All staff exposed to elevated dust are equipped with suitable dust masks	E2 - Environment Standard~ Air Quality Control; JH50/COP/031~ Personal Protective Equipment; B8 - OH Standards~ Legionnaires disease	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager

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239			All equipment, plant, and facilities should be fitted with appropriate safety demarcations, warning and information signage to ensure that an employee can avoid foreseeable risks and navigate to safety in the event of an emergency.	On-going (Design and construction phase)	All safety and warning signage to be in place before plant commissioning	JH50/COP/017~ Barricading and Demarcation	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
240			To minimise the risk of legionella disease associated with wet operations, the flush programme must be established and implemented.	Operational phase	All staff exposed to elevated dust are equipped with suitable dust masks	E2 - Environment Standard~ Air Quality Control; JH50/COP/031~ Personal Protective Equipment; B8 - OH Standards~ Legionnaires disease	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
241	ORE CRUSHER: Waste management	Handling and disposal of domestic waste from the ore crusher.	All facilities and works areas should be allocated sufficient rubbish bins for the receipt of domestic waste and litter.	Operational phase	Placement of rubbish bins are adequate in the opinion of the H&E officer	JH50/COP/001~ Housekeeping Inspections	Physical verification, routine OHSEC monitoring and reporting. No signs of littering and rubbish bins are not overtopping	H&E, Safety Officer and Plant Manager
242			Rubbish bins should be collected at regular intervals and disposed of at the Rössing Uranium landfill site on the mine.	Operational phase	No rubbish bins should overtop before being collected for disposal	JH50/COP/001~ Housekeeping Inspections; JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification, routine OHSEC monitoring and reporting. No signs of littering and rubbish bins are not overtopping	H&E, Safety Officer and Plant Manager
243		Handling and disposal of hazardous waste.	Any hazardous waste generated by the ore crusher would be disposed of in the hazardous waste cell at the landfill or at the disposal area on the tailings dam.	Operational phase	Without unwarranted exceptions	JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items; E5 - Environment Standard~ Hazardous Material and Contamination Control; B4 - OH Standards~ Hazardous substances	Physical verification, routine OHSEC monitoring and reporting. Waste disposal certificates	H&E, Safety Officer and Plant Manager
244		Handling and treatment of sewerage.	Sewage would be treated at the existing sewage treatment plant and the treated effluent should be reused in mine processes.	Operational phase	Without unwarranted exceptions	JE65/OWM/003~ Sewage Plant Monitoring; JE50/SOP/003~ Sewage Plant Operation	Physical verification, routine OHSEC monitoring and reporting. Waste disposal certificates	Design and Project Management Team and Plant Waste Water Treatment Plant Manager
245		Appropriate handling, storage and disposal / recycling of scrap metal.	Scrap metal arising from repair and maintenance work would be collected by the on-site waste management contractor for sorting and recycling.	As required during the operational phase	100% recycling of scrap metal	JK65/PRD/004~ Removal of Scrap	Physical verification, routine OHSEC monitoring and reporting. Waste disposal certificates	H&E Officer and Plant Manager
246		Appropriate handling, storage, disposal and recycling of used hydrocarbons.	Rössing Uranium's existing HSE procedure should apply to the reuse and disposal of hydrocarbons ore crusher.	Operational phase	100% recycling of recoverable hydrocarbons	JE50/WMP/002~ Disposal and re-use of hydrocarbons ; ENV/WMP/002	Physical verification, routine OHSEC monitoring and reporting.	H&E Officer and Plant Manager and site based hydrocarbons supply contractor
247			Suitable, leak-proof drums for the disposal of oils and greases should be positioned at areas where such materials are likely to be generated.	As required during the operational phase	adequate in the opinion of the H&E Officer	JE50/WMP/002~ Disposal and re-use of hydrocarbons; E5 - Environment Standard~ Hazardous Material and Contamination Control; JE50/WMP/012~ Disposal of oil and diesel filters; B4 - OH Standards~ Hazardous substances	Physical verification, routine OHSEC monitoring and reporting.	H&E Officer and Plant Manager

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248			Drums should be marked according to the type of hydrocarbon being deposited, namely, synthetic oil, mineral oil, or grease. Rössing Uranium has a hydrocarbon product supply contractor who will deal with the management of such materials.	As required during the operational phase	Without unwarranted exceptions	JE50/WMP/002~ Disposal and re-use of hydrocarbons; E5 - Environment Standard~ Hazardous Material and Contamination Control; JE50/WMP/012~ Disposal of oil and diesel filters; B4 - OH Standards~ Hazardous substances; JH50/COP/016~ Colour Coding	Physical verification, routine OHSEC monitoring and reporting	H&E Officer and Plant Manager
249	ORE CRUSHER: Dust suppression	Reduce the levels of nuisance dust and health and safety concerns related to radon and respirable silica containing dust and monitor dust fallout.	All access and haul roads and traffic control initiatives are to be maintained so as to minimise the total road surface area and the overall mine dust fallout monitoring to include dust from the source.	Operational phase	Optimised design in the joint opinion of the Project Management Team and Environmental and Health and Safety Departments	Project recommendation	Final road design with associated design motivation	Design and Project Management Team with inputs from Environmental Management and Health and Safety
250			Speed limits on all gravel roads should be controlled in accordance with dust emissions standards through regular monitoring. Rössing Uranium should also ensure that unnecessary traffic is minimised.	Operational phase	Traffic speeds are kept within the specified limits	C3~ Vehicles and Driving; JH50/COP/007~ Vehicles and Driving	Physical verification, routine OHSEC monitoring and reporting	H&E and Safety Officers
251			The build-up of fines on road surfaces should be prevented or addressed. Dump trucks entering or leaving the ore crusher premises should not be overloaded, minimising potential spillages and the accelerated build-up of fines on the road surfaces. Road surface should be maintained in a good state of repair and where necessary, the wearing course should be replaced and sufficiently compacted.	As required during the operational phase	Fallout dust levels remains within specified standards	Project Recommendation	Physical verification, routine OHSEC monitoring and reporting. Fallout dust measurements	H&E and Safety Officers
252			All high traffic roads should be wetted regularly. Chemical dust suppressants should be added to increase the efficacy of water and assist in binding the dust. Hard surfacing or stabilising of problem areas or very high traffic zones should be considered. Barricades may be erected along problem areas to reduce cross winds and shade road surfaces to reduce water evaporation.	As required during the operational phase	Fallout dust levels remains within specified standards	E10 - Environment Standard~ Water Use and Quality Control; E2 - Environment Standard~ Air Quality Control; JE50/OWM/003~ Water Recycling and Re-Use	Physical verification, routine OHSEC monitoring and reporting. Fallout dust measurements	H&E and Safety Officers
253			Fall heights from earthmoving equipment and transfer points on conveyors should be kept to the minimum through design and continual adjustment.	Operational phase	Optimised design to be maintained and fall height reduction techniques or equipment to be fully implemented	Project recommendation	Routine OHSEC monitoring reports	Facility managers, supervisors, plant and equipment operators, H&E and Safety officer

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254			All transfer points on the conveyor systems and crushing jaws should be equipped with suitable dust extraction or dust suppression systems. Any filter bags should receive regular maintenance in order to reduce dust emissions form the facility.	Operational phase	Routine maintenance and servicing of dust reduction equipment to be undertaken to ensure optimal operation in maintained	E2 - Environment Standard~ Air Quality Control	Routine OHSEC monitoring reports, physical verification and maintenance register and dust monitoring records for the ore crusher vicinity	Facility manager, plant operators, H&E and Safety officers
255			Automated or manual clearing of accumulated fines around conveyor transfer points, loading areas and around the ore crusher's air blast chambers or other areas where spillages may occur should be undertaken regularly to prevent a build-up of fines that may be susceptible to wind dispersion.	Operational phase	areas around conveyor transfer points to be cleared regularly	JH50/COP/001~ Housekeeping Inspections	Physical verification, routine OHSEC monitoring and reporting. Fallout dust measurements	Plant Manager, H&E and Safety Officers
256	ORE CRUSHER: Noise and vibration management	Reduce potential nuisance noise and potential health and safety risk to Rössing Uranium employees working in close proximity to the ore crusher.	All plant and equipment should receive regular maintenance and should be operated in accordance with their design specifications. All mechanically powered equipment should be fitted with appropriate silencing devices which are to be inspected and repaired when necessary.	Operational phase	Maintenance carried out to manufactures specification. All plant and equipment in a visible well maintained condition	Project recommendation	Equipment registers	Plant Manager
257			Equipment noise audits should be carried out on all new plant and equipment upon delivery to site. These records should be used as a reference to monitor the potential deterioration of equipment noise levels during operation.	Upon arrival and commissioning of an item of equipment or plant	All equipment to have a noise audit base level	JA80/AUD/001~ Procedure carrying out environmental audits at Rössing Uranium; JA65/MSP/001~ Monitoring and Measurement; B2 - OH Standards~ Hearing conservation; E6 - Environment Standard~ Noise and Vibration Control	Equipment registers	H&E and Safety Officers
258			Environmental noise monitoring should be carried out regularly to detect deviations from predicted noise levels and enable corrective actions to be implemented where necessary.	Monthly and as required	Area noise level (see demarcations) and personal dose	JA65/MSP/001~ Monitoring and Measurement; JK65/COP/011~ Human Vibration Protection; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey	Noise monitoring data sheets	Plant Manager, H&E and Safety Officers
259			All plant staff should be instructed in the need to minimise operational noise as part of the induction training course.	Induction and task specific training and as required throughout the operational phase	Minimising noise to form part of the training course	JH50/COP/024~ Induction; JH50/COP/025~ Safety Training Courses	Physical verification, routine OHSEC monitoring and reporting. Training register	Plant Manager, H&E and Safety Officers
260			All potentially excessive sources of noise from the plant or operational areas should be considered in the layout and design of the facilities. Noisy operations or equipment shall occur within areas where sufficient noise dampening exists or where such noise will not affect workers or closest recipients.	Operational phase	Plant operation does not result in above standard exterior noise level or excessive noise at closest recipients	Project recommendation	Noise monitoring data sheets and routine OHSEC monitoring reports	Facility manager, H&E and Safety Officer

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261			Where noise levels pose a health and safety risk, demarcate noise zones will be instituted and affected staff should wear the appropriate hearing protection equipment.	On-going (Design and construction phase) and throughout the operations phase	Staff working within designated areas of the plant are wearing the appropriate hearing protection devices	JH50/COP/017~ Barricading and Demarcation; JA05/POL/001~ HSE Policy Strategies; E6 - Environment Standard Noise and Vibration Control	Physical verification, routine OHSEC monitoring and reporting.	Plant Manager, H&E and Safety Officers
262	ORE CRUSHER: Visual impact	Minimising night time visual impact associated with the lighting of the facility.	Lighting of the facility should be kept to the efficient minimum.	Design and operational phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
263			Lighting in and around the facility should adopt the principle of being downward facing and task-specific, with limited spillage into the surrounding areas.	Design and operational phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
264			Flood lighting of extensive outdoor areas and up-lighting of vertical structures or topographical forms should not be permitted. Security and perimeter lighting must also be shielded so that no light falls outside the area needing to be lit. Overly tall light poles are to be avoided.	Design and operational phase	Lighting to meet health and safety requirement for task lighting but no unnecessary floodlighting or up lighting of structures should occur	Project recommendation	Physical verification, routine OHSEC monitoring and reporting. Complaints register	Plant Manager, H&E and Safety Officers
265			Sound housekeeping practices in material lay-down areas and stockpiles, and litter control to be undertaken regularly.	As required during the operational phase, weekly intervals usually acceptable	Housekeeping and litter control acceptably in the joint opinion of the H&E Officer	JH50/COP/001~ Housekeeping Inspections	Physical verification, routine OHSEC monitoring and reporting.	Plant Manager, H&E and Safety Officers
266			General facility maintenance should be undertaken to ensure that the visual appearance of the facility does not deteriorate and become visually offensive with the passing of time.	As required during the operational phase	Acceptable in the opinion of the H&E Officer and plant manager	JH50/COP/001~ Housekeeping Inspections	Physical verification, routine OHSEC monitoring and reporting	Plant Manager, H&E and Safety Officers
267	ORE CRUSHER: Water management	Control of potentially contaminated storm, wash water and industrial effluent from the Ore crusher plant.	Storm water collecting within the facility that may have been contaminated with radioactive fines, hydrocarbons and other potentially hazardous chemicals, should be collected in an appropriately designed drainage network and collection sump.	Operational phase at quarterly intervals	No pollution incidents, contaminated storm water system visibly maintained	JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; E10 - Environment Standard~ Water Use and Quality Control; JA05/COP/003~ Environmental Management System Code of Practice	Physical verification and routine OHSEC monitoring and reporting	H&E officer
268			Contaminated water is to be pumped to the primary crusher spillage collection system for treatment and reuse, the integrity of the systems must be inspected regularly for leaks and spills or potential maintenance requirements.	Operational phase at quarterly intervals	No pollution incidents, contaminated storm water system visibly maintained	JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy; E10 - Environment Standard~ Water Use and Quality Control	Physical verification and routine OHSEC monitoring and reporting	Facility manager and H&E officer

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269			Accumulation of runoff from the various dust suppression spraying points which may have minor radioactive dust and hydrocarbon contamination, should be directed to a collection sump via the drainage network from where it should be pumped to the primary crusher spillage collection system for treatment and reuse or disposal, the integrity of the systems must be inspected regularly for leaks and spills or potential maintenance requirements.	Operational phase at quarterly intervals	No pollution incidents, contaminated storm water system visibly maintained	JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy; E10 - Environment Standard~ Water Use and Quality Control	Physical verification and routine OHSEC monitoring and reporting	Facility manager and H&E officer
270		Water conservation systems to conserve water though the application of principles of reduce, reuse and recycle.	Rössing Uranium should continue to monitor water usage.	Operational phase	Provisions to monitor water usage are installed into the plant	JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/004~ Water Quality Monitoring; JE50/OWM/003~ Water Recycling and Re-Use	Water meters are attached. Water usage results are physically recorded. Routine OHSEC monitoring and reporting	Plant Manager, H&E and Safety Officers
271			Identify, assess, and implement feasible measures to reduce, reuse, and recycle water as part of the water management strategy.	Operational phase	Reduced water utilisation per unit of ore processed per year	JE50/OWM/003~ Water Recycling and Re-Use	Water utilisation data. Routine OHSEC monitoring and reporting	Plant Manager, H&E and Safety Officers
272			Dust suppression systems to be maintained to ensure that systems are working optimally.	Operational phase	Optimal dust suppression realised in the opinion of the environmental management department	JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers; JE/50/PIN/003~ Dust Deposition Sampling; B1 - OH Standards~ Particulate and gas or vapour exposures; E2 - Environment Standard~ Air Quality Control	Water utilisation data compared to fallout dust levels	Plant Manager, H&E and Safety Officers
273			All site staff should be made aware of the need to use water conservatively and are to report any wastage or leakages to their supervisors immediately.	Induction and task specific training and as required throughout the operational phase	Water conservation is addressed as part of the induction training course	JA30/MSP/013~ Identification of training needs and training methods; JA65/MSP/001~ Monitoring and Measurement; JA45/MSP/002~ Communication and Reporting; JE50/OWM/003~ Water Recycling and Re-Use; JE50/MSP/001~ Water Quality Management; E10 - Environment Standard~ Water Use and Quality Control; JH50/COP/024~ Induction	Training register	Plant Manager, H&E and Safety Officers
274			All water pipes, valves, and water dependant processes should be monitored for water use efficiency.	Operational phase	Water loss as a result of leaks to be kept to a minimum	JA65/MSP/001~ Monitoring and Measurement; JE50/MSP/001~ Water Quality Management	Water use data for the plant (measurements during shut down can identify leaks)	Plant Manager, H&E and Safety Officers
275			Repairs, reconfigurations, or recalibration should take place promptly to ensure optimum water efficiency is realised.	As required	All leaking pipes or faucets are repaired as soon as possible	Project recommendation	Routine OHSEC monitoring and reporting	Plant Manager, H&E and Safety Officers
276			Treated effluent, as opposed to fresh water, can be used for the purposes of ore crusher plant wash-down.	Operational phase	Use only treated effluent for plant wash-down	JE50/OWM/003~ Water Recycling and Re-Use	Physical verification. Routine OHSEC monitoring and reporting	Plant Manager, H&E and Safety Officers

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277	ORE CRUSHER: Energy usage and greenhouse gas emissions	Achieve the most efficient process and operations configurations for both energy usage and GHG emissions.	Rössing Uranium should continue to explore, investigate, and implement options such as energy efficient motors and natural lighting to reduce GHG emissions and energy usage throughout the operational phase of the project.	Operational phase	Year on year reduction in energy consumption	Project recommendation	Energy usage	H&E and Safety Officers and Sustainable Development
278	Tailings facility	Minimise the surface and ground water pollution.	Where required, new production boreholes must be installed on the tailings facility to cater for the expanded activities and changes in ground water seepage.	On-going and as required and operations phase	Optimise the recovery of water from the tailings dam	Project recommendation; JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	Water monitoring records relating to seepage	Facility Manager and H&E Officer
279			Existing Rössing Uranium procedures with regard to tailings management must be reviewed and updated to cater for the expanded capacity.	On-going and as requiredOn-going	All relevant procedures reviewed annually	JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	HSE Procedures	HSE Department
280			Stormwater and seepage control systems must be installed or upgraded to cater expanded capacity.	On-going	Where required, seepage control systems installed or upgraded to meet requirements	JE50/SOP/002~ Seepage Control Systems; JE05/STR/001~ Rössing Water Strategy	Physical verification and relevant planning documents	Facility Manager and H&E Officer
281			Existing groundwater monitoring programmes must be reviewed and expanded to cater for the expanded capacity.	On-going	Environmental monitoring programme scaled up to meet expanded mine	JA65/MSP/001~ Monitoring and Measurement; JE65/OWM/004~ Water Quality Monitoring	Environmental monitoring programme	Facility Manager and H&E Officer
282		Dust and radon emissions from the expanded tailings facility.	Dust from the tailings facility must be minimised through the use of wet dust suppression measures and insertion of wind barriers along across the fallow plateau areas.	On-going	Minimise fugitive dust	JE50/OWM/003~ Water Recycling and Re-Use; JE/50/PIN/001~ Monitoring ambient dust levels using high volume samplers	Monitoring records	Facility Manager and H&E Officer
283			All workers working near radiation sources/sealed on the primary crusher must abide by work rotation schedules and work time restrictions as well as the prescribed shielding and the permit to work system.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment; JH50/COP/026~ Permit to Work and Clearances System; JK50/COP/006 ~Code of Practice for protection against ionising radiation; JK65/COP/007~ Protection against Ultra Violet Radiation; JK65/PRD/001 ~Radiation Protection when using Sealed Radioactive sources; JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination; JK65/PRD/016 ~Area Survey for External Gamma Radiation; JK65/PRD/019~ The Monitoring of Personal Radiation Dose, JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager

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284		Visual impact management.	The outer edges of the expanded tailings facility must be rounded to minimise the formation of linear intrusions in the landscape. Measures to form a more organic landscape should be adopted where opportunities present themselves.	At the topping out of each bench	Organic mountainous profile achieved	JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	Physical verification and specialist assessment	Facility Manager and H&E Officer
285			Lighting of the tailings facility must be kept to the absolute minimum required to undertake operations safely. Lighting should face away from the town of Arandis and roadways.	On-going and as required and *ad hoc*	Meet with specialist recommendations	JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	Night-time physical verification from receptor key locations	Facility Manager and H&E Officer
286	Heap Leach Facility: Groundwater pollution	Detection and minimisation of spills of sulphuric acid.	All mechanisms to limit spills, including sulphuric acid transmission pipes, potentially resulting in the contamination of the environment, must be inspected regularly and maintained or replaced as necessary.	Monthly inspection	Inspected at specified intervals and maintenance works carried out as soon as possible	JA65/MSP/001~ Monitoring and Measurement; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; JA05/COP/003~ Environmental Management System Code of Practice; JK65/PRD/010~ Monitoring and identification of contaminated Items; E5 - Environment Standard~ Hazardous Material and Contamination Control; ; JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Inspection reports	Facility manager or delegated person. Safety and H&E officer
287			Workshops and reagent tanks to be contained in a bunded area sized for 110% of the potential spillage.	On-going and as required	All stores and workshops / reagent tanks located within spill bunds	JA65/MSP/001~ Monitoring and Measurement; JA15/MSP/006~ Hazard Identification, Risk Evaluation and Risk Management; JA05/COP/003~ Environmental Management System Code of Practice; JK65/PRD/010~ Monitoring and identification of contaminated Items; E5 - Environment Standard~ Hazardous Material and Contamination Control; ; JE50/WMP/010~ Procedure for action taken in the event of diesel or oil spillage	Physical verification	Facility Manager and H&E Officer
288			As per the current system around the tailings dam, appropriately spaced monitoring boreholes should be installed around the plant to check that seepage is not leaving the site in an uncontrolled way.	On-going and as required	Sufficient monitoring boreholes located at suitable locations	JA65/MSP/001~ Monitoring and Measurement	Physical verification and monitoring records	Facility Manager and H&E Officer
289			The area surrounding the heap leach pad shall be monitored for wind drift of sulphuric acid mist associated with the irrigation system. The irrigation system should be modified in required to minimise losses based on local environmental conditions.	Ad hoc and weekly	Monitoring programme to include monitoring of this aspect	JA65/MSP/001~ Monitoring and Measurement; E2 - Environment Standard~ Air Quality Control; E5 - Environment Standard~ Hazardous Material and Contamination Control; B1 - OH Standards~ Particulate and gas or vapour exposures; B4 - OH Standards~ Hazardous substances; B8 - OH Standards~ Legionnaires disease	Monitoring records	Facility Manager and H&E Officer

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290	Heap Leach Facility: Risks related to sulphuric acid operations.	Ensure that there are adequate and appropriate first aid provisions to respond to accidents related to sulphuric acid.	First aid actions should be co-ordinated with the mine's Medical Centre which is in close proximity to the heap leach plant.	On-going and throughout the operational phase	medical centre and plant managers have agreements and procedures in place, emergency procedures reflect this	JA05/POL/001~ HSE Policy Strategies	Verify paperwork: Emergency procedures	Plant manager and Health and Safety officers
291			The heap leach facility plant should be fitted with a first-aid station and should preferably have a trained first-aider on duty during each shift.	Throughout the operational phase	First-aid box is available and fully stocked	JA05/POL/001~ HSE Policy Strategies; JK65/PIN/005~ Management of Health Instruments and Equipment	Physical verification, routine OHSEC monitoring and reporting. Emergency evacuations drills to be held regularly	Plant manager and Health and Safety officers
292			The first-aid station should be equipped with adequate resources required to treat and stabilise a patient ahead of transportation to the mine Medical Centre.	First aid box to be inspected at regular intervals	First-aid box is available and fully stocked	Project recommendation; JK65/PIN/005~ Management of Health Instruments and Equipment	Checklist to be completed weekly	Designated plant first-aider
293		Ensure a safe work environmental for employees and that exposure to occupational risks are minimised.	All working areas should have sufficient ventilation and lighting to ensure that workers can undertake their task in safety.	Design and operational phase	All operations are to be undertaken in adequately lit and ventilated environment	Project recommendation	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager
294			Personal protective equipment appropriate for the minimisation of occupational hazards of the task should be provided by Rössing Uranium and the use thereof by the employee should be mandatory.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager
295			The heap leaching plant should have adequate access control and security measures in place to ensure only authorised, trained, or supervised individuals gain access to the facility.	Operational phase	All persons entering the plant premises to be verified	Project recommendation	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
296			All workers working near radiation sources/sealed on the primary crusher must abide by work rotation schedules and work time restrictions as well as the prescribed shielding and the permit to work system.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment; JH50/COP/026~ Permit to Work and Clearances System; JK50/COP/006 ~Code of Practice for protection against ionising radiation; JK65/COP/007~ Protection against Ultra Violet Radiation; JK65/PRD/001 ~Radiation Protection when using Sealed Radioactive sources; JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination; JK65/PRD/016 ~Area Survey for External Gamma Radiation; JK65/PRD/019~ The Monitoring of Personal Radiation Dose, JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager

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297			All workers should have access to a sufficient quantity of safe potable water, and ablution and washing facilities within a reasonable distance of their working area.	Operational phase	Sufficient potable water is available and positioned close enough to the area of operation (25ℓ/person/day)	JE05/STR/001~ Rössing Water Strategy; JE50/MSP/002~ Freshwater Supply Management	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
298			All employees working outdoors and within the vicinity of the heap leach facility should wear suitable dust masks to limit the inhalation of respirable dust as well as hearing protection to avoid exposure to high noise levels arising from the plant operation.	Operational phase	All staff exposed to elevated dust are equipped with suitable dust masks	E2 - Environment Standard~ Air Quality Control; JH50/COP/031~ Personal Protective Equipment; B8 - OH Standards~ Legionnaires disease	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
299			All equipment, plant, and facilities should be fitted with appropriate safety demarcations, warning and information signage to ensure that an employee can avoid foreseeable risks and navigate to safety in the event of an emergency.	On-going (Design and construction phase)	All safety and warning signage to be in place before plant commissioning	JH50/COP/017~ Barricading and Demarcation	Physical verification, routine OHSEC monitoring and reporting.	H&E, Safety Officer and Plant Manager
300	Heap Leach Facility: Health and safety considerations	Reduce health and safety risks by ensuring effective worker competence, training and awareness.	All new and existing staff that will work in the heap leaching operations should undergo an intensive induction course in health, safety, and environment.	On-going	All staff received induction training before commencement of work in plant	JH50/COP/024~ Induction; JH50/COP/025~ Safety Training Courses	Competence testing and training register / attendance register	Facility Manager
301			All workers should undergo a medical examination to ensure that they are physically fit, mentally capable and are assessed as being competent to undertake the tasks to which they have been assigned.	On-going	All staff medically cleared before commencement of work, Without unwarranted exceptions	B7 - OH Standards~ Fitness for work	Medical exam records	Facility Manager
302			All workers working near radiation sources/sealed on the primary crusher must abide by work rotation schedules and work time restrictions as well as the prescribed shielding and the permit to work system.	Operational phase	Without unwarranted exceptions. all staff to wear appropriate PPE	JH50/COP/031~ Personal Protective Equipment; JH50/COP/026~ Permit to Work and Clearances System; JK50/COP/006 ~Code of Practice for protection against ionising radiation; JK65/COP/007~ Protection against Ultra Violet Radiation; JK65/PRD/001 ~Radiation Protection when using Sealed Radioactive sources; JK65/PRD/015~ Area Radiation Survey for Total Alpha and Beta Contamination; JK65/PRD/016 ~Area Survey for External Gamma Radiation; JK65/PRD/019~ The Monitoring of Personal Radiation Dose, JK65/PRD/020~ Personal External Radiation Dose Monitoring with a Dosicard	Physical verification, routine OHSEC monitoring and reporting	H&E, Safety Officer and Plant Manager

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303			Each staff member should also receive task-specific instruction and will be instructed on their terms of reference, which should clearly outline their duties and responsibilities, other pertinent health, safety, environmental and general protocols, as well as any HSE management system control procedures that have direct bearing on the area of operation.	On-going	All staff received task-specific training before commencement of work in plant. A copy of all ISO procedures relevant to position to be issued	JA05/POL/001~ HSE Policy Strategies; B7 - OH Standards~ Fitness for work	Training register. Discussions with staff	Plant operators, supervisors and H&E officers
304			Rössing Uranium should commence with recruitment/ promotion and training of plant operational personal well in advance of the commissioning of the facility to ensure a suitable level of proficiency is achieved.	Throughout the construction phase	All plant staff appointments are finalised for the plant testing at the end of the construction phase	Project recommendation; JH50/COP/024~ Induction; JH50/COP/025~ Safety Training Courses; JA30/MSP/013~ Identification of training needs and training methods	Letters of appointment	Project management team, Manager: OHS&E and Risk Management and Rössing Uranium senior management.
305			Teams working in these areas should also receive *ad hoc* health, safety, and environment training in the form of toolbox talks to be held at least once a week.	Weekly	OHSEC topic to be included in toolbox talks at least weekly	JH50/COP/025~ Safety Training Courses; JA30/MSP/013~ Identification of training needs and training methods	Training register	H&E Officer / team supervisors
306			An intense supervisory presence should be implemented during commissioning and for a period thereafter, to ensure that HSE management system protocols are clearly understood by the plant operational staff.	First three months after commissioning	Supervisory staff, plant managers and other technical staff to allocate the majority of their time to supervision of plant operations	JH50/COP/023~ 28.5(b) Appointment of Responsible persons; JH50/COP/032~ The role of an OHSE representative; JH50/COP/O22~ Appointment of Safety Superintendent	Physical verification	Supervisors, plant manager's and H&E officers
307			All facilities should also to be fitted with the required health and safety warning and information signage that is required and suitable for such installations.	On-going	Warning and information signage to comply with international norms and standards	JH50/COP/028~ Injury - Disease statistics; JH50/COP/029~ Injury Experience Information Board; JA05/POL/001~ HSE Policy Strategies	Physical verification	H&E Officer and Manager Health and safety
308		Ensure adequate emergency procedures are in place to reduce the magnitude of the impacts in the event of an emergency.	Induction training should include detailed coverage of the emergency response and evacuation procedures.	On-going	Emergency procedures to be complete, approved, and appropriate. Emergency procedures are included in induction and task specific training	Project recommendation; JH50/COP/024~ Induction; JH50/COP/025~ Safety Training Courses; JA30/MSP/013~ Identification of training needs and training methods	Verify paperwork, induction syllabus and training register. Evacuation signage to be appropriately posted in the facility (i.e. Exits)	H&E Officer, Manager Health and safety and Safety Training
309			An evacuation plan should be developed and presented to the staff at each work station that will clearly identify the protocols to be followed in the event of an emergency, the location and functioning of the emergency escape routes and doors, and the emergency assembly areas. Respirators should be available and properly maintained and checked with all other PPE.	On-going	Emergency procedures to be complete, approved, and appropriate. Emergency procedures are included in induction and task specific training	JA05/POL/001~ HSE Policy Strategies; JH50/COP/025~ Safety Training Courses	Verify paperwork, induction syllabus and training register. Evacuation signage to be appropriately posted in the facility (i.e. exits) and respirators and other required PPE are available and regularly checked according to a schedule	H&E Officer, Manager Health and safety and Safety Training

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310			All emergency equipment and PPE should be pointed out and staff should be trained in their use.	At commencement during induction and task specific training	All staff to be trained in the use of all emergency equipment in their work area	JH50/COP/031~ Personal Protective Equipment; JH50/COP/025~ Safety Training Courses; JK65/PIN/005~ Management of Health Instruments and Equipment	Training register	H&E Officer, Manager Health and safety and Safety Training
311			Induction training should include basic first-aid and fire-fighting training.	Induction and task specific training and as required throughout the operational phase	All staff to know the basic first aid principles, especially those related to the type of accidents occurring within their work area (i.e. contact with acid)	JH50/COP/025~ Safety Training Courses; JH50/COP/024~ Induction; JH50/COP/012~ First Responder Training	Training register, induction syllabus	H&E Officer, Manager Health and safety and Safety Training
312			Each work station should preferably have a staff member that is trained in first-aid and another as a fire officer.	On-going	Certified First aider always present	JH50/COP/012~ First Responder Training	Physical verification	H&E Officer and Manager Health and safety
313		Ensure that there are adequate and appropriate first aid provisions to respond to accidents in the heap leach facility.	First aid actions should be co-ordinated with the mine's Medical Centre which is in close proximity to the proposed acid plant site and similarly, coordination with the medical service providers in Walvis Bay or Swakopmund are to be established and maintained.	As required	All injuries and accidents reported to mine medical centre	JH50/COP/029~ Injury Experience Information Board; JA45/MSP/002~ Communication and Reporting	Medical centre accident reports	Safety officers, supervisors
314		Ensure a safe work environment for employees and that exposure to occupational risks are minimised.	All work areas are to be adequately ventilated and lit.	As required	Meets with occupational Health and Safety statutory requirements	JA05/POL/001~ HSE Policy Strategies	Physical verification	Safety officers and Supervisors
315			All staff should be equipped with the necessary personal protective equipment, including respirators where appropriate, to limit their exposure to risks presented by their task or area of operation.	As required	Without unwarranted exceptions	JH50/COP/031~ Personal Protective Equipment	Physical verification	H&E Officer, Safety Officers
316	Heap Leach Facility: Waste Management	Appropriate handling, storage and disposal of domestic waste arising from the Heap Leach Facility.	Requirements for proper domestic waste management are in place at Rössing Uranium and new installations will be integrated with these.	On-going	No incidents or mismanagement reported by H&E officer	JE50/WMP/006~ Disposal practice for the Rössing Uranium landfill site	Physical verification, waste disposal certificates	H&E Officer, Plant manager
317		Appropriate handling, storage and disposal / recycling of scrap metal.	Scrap metal arising from repair and maintenance work would be collected by the on-site waste management contractor for sorting and recycling.	As required	100% scrap metal recycled	JK65/PRD/004~ Removal of Scrap	Physical verification	H&E Officer and Plant Manager
318		Appropriate handling, storage, disposal and recycling of used hydrocarbons.	The reuse and disposal of hydrocarbons from the plant and associated areas is to be undertaken in a controlled and appropriate fashion.	As Required	In compliance with HSE management system procedures and industry best practice	JE50/WMP/002~ Disposal and re-use of hydrocarbons; JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items	Physical verification, waste disposal / recycling certificates	H&E Officer, Plant manager
319			Suitable, leak-proof drums for the disposal of oils and greases should be positioned at areas where such materials are likely to be generated.	On-going	No hydrocarbon waste or contaminated items to be disposed of in domestic or other waste bins	JE50/WMP/002~ Disposal and re-use of hydrocarbons; JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items	Physical verification and monitoring reports	H&E Officer, Plant manager

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320			Drums should be marked according to the type of hydrocarbon being deposited, namely, synthetic oil, mineral oil, or grease. Rössing Uranium has a hydrocarbon product supply contractor who will deal with the management of such materials.	On-going	All drums are to have correct markings and no hydrocarbon waste or contaminated items to be disposed of in domestic or other waste bins and vice versa	JE50/WMP/002~ Disposal and re-use of hydrocarbons; JK65/PRD/003~ Disposal of Contaminated Items; JK65/PRD/007~ Transport of Contaminated Items; JH50/COP/016~ Colour Coding	Physical verification and monitoring reports	H&E Officer, Plant manager
321	Heap Leach Facility: Noise management	Limit the noise generated by the Heap Leach Facility operations and limit the number steam releases.	All plant and equipment should receive regular maintenance and should be operated in accordance with their design specifications. All mechanically powered equipment should be fitted with appropriate silencing devices which are to be inspected and repaired when necessary. Number of steam releases to be minimised.	Operational phase	All equipment in a good state of repair	JH50/COP/018~ Machine Guarding; JA05/POL/001~ HSE Policy Strategies	Physical verification of the presence of silencing devices. Routine OHSEC monitoring and reporting, and maintenance records.	H&E and Safety Officer
322			Equipment noise audits should be carried out on all new plant and equipment upon delivery to site. These records should be used as a reference to monitor the potential deterioration of equipment noise levels during operation.	On-going and as required	Records are kept up to date and are used as a point of reference in on-going noise monitoring	JK65/PRC/003~ Area Noise Survey; E6 - Environment Standard~ Noise and Vibration Control	Noise monitoring data sheets	H&E and Safety Officer
323			Environmental noise monitoring should be carried out regularly to detect deviations from predicted noise levels and enable corrective actions to be implemented where necessary	Operational phase	Noise levels remain within the specified standards	JK65/PRC/003~ Area Noise Survey; E6 - Environment Standard~ Noise and Vibration Control; JA65/MSP/001~ Monitoring and Measurement JA05/COP/003~ Environmental Management System Code of Practice	Noise monitoring data sheets	H&E and Safety Officer
324			All potential excessive sources of noise from plant or operational areas should be considered in the layout and design of the facilities. Noisy operations or equipment shall occur within areas where sufficient noise dampening exists or where such noise will not affect workers or closest recipients.	Operational phase	Plant operation does not result in above standard exterior noise level or excessive noise at closest recipients	JK65/COP/011~ Human Vibration Protection; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; B2 - OH Standards~ Hearing conservation; E6 - Environment Standard~ Noise and Vibration Control	Noise monitoring data sheets and routine OHSEC monitoring reports	Facility manager, H&E and Safety Officer
325			Where noise levels pose a health and safety risk, demarcate noise zones will be instituted and affected staff should wear the appropriate hearing protection equipment.	On-going and as required	All high-noise-zones are to have adequate demarcations and warning signage	JK65/COP/011~ Human Vibration Protection; JK65/PRC/003~ Area Noise Survey; JK65/PRC/004~ Personal Noise Survey; B2 - OH Standards~ Hearing conservation; E6 - Environment Standard~ Noise and Vibration Control; JH50/COP/017~ Barricading and Demarcation	Physical verification and routing noise monitoring (Personal exposure)	H&E and Safety Officer
326	Heap Leach Facility: Visual impact	Minimise the visual impact associated with the lighting of the facility during the night.	Lighting of the facility should be kept to the efficient minimum, although aircraft warning lights to be provided and maintained.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring	Project recommendation	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
327			Lighting in and around the facility should adopt the principle of downward facing, task-specific lighting with limited spillage of light into the surrounding areas. No naked light sources are to be directly visible from a distance, (except for the aircraft warning lights.) Only reflected light should be visible from outside the site.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
328			Flood lighting of extensive outdoor areas and up-lighting of vertical structures or topographical forms shall not be permitted.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
329		Minimise the visual impact associated with the heap leach site by day.	Sound housekeeping practices in material lay-down areas and stockpiles, litter control and general facility maintenance should be undertaken to ensure that the visual appearance of the facility does not deteriorate and become visually offensive with the passing of time.	Operational phase	All lay down, staging and stockpiling areas meet with the satisfaction of the relevant OHSEC inspectors	JH50/COP/001~ Housekeeping Inspections	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
330			All major plant and equipment are to be painted in a grey-brown colour that allows these to blend with the natural landscape when viewed from a distance.	On-going and as required	Without unwarranted exceptions, except where safety requirements take precedence	Project recommendation	Physical Verification	H&E and Safety Officer
331	Heap Leach Facility: Water management	Control of movement of storm water around the facility to prevent potential contamination of flows with sulphur and sulphur derivatives.	Cut-off drains and berms, along with the concrete containment bunding and flooring to ensure that surface flows are prevented from entering the facilities shall be cleaned regularly.	Operational phase as required	Storm water controls are cleared as required and are free from obstacles and excessive sedimentation	JH50/COP/001~ Housekeeping Inspections; JH50/COP/001~ Housekeeping Inspections; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy	Routine OHSEC monitoring reports. Maintenance register	Facility manager, delegated maintenance crews and H&E officer
332		Control of potentially contaminated storm, wash water and industrial effluent from the Heap Leach Facility premises.	Storm water collecting within the containment bunding of any given facility that may have been contaminated with reagents, hydrocarbons and other potentially hazardous chemicals should be collected in an appropriately designed drainage network and collection sump for recycling or treatment.	Operational phase at daily intervals	No pollution incidents, contaminated storm water system visibly maintained	JH50/COP/001~ Housekeeping Inspections; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy	Physical verification and routine OHSEC monitoring and reporting	H&E officer

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
333			Acid resistant concrete floors and a containment bund draining to an effluent collection sump must be inspected regularly and maintenance and repairs undertaken where required. Seals between concrete slabs (potential contamination pathway) to be maintained and groundwater sulphate levels to be tested.	Operational phase at daily intervals, and sulphate levels in nearest borehole to be tested regularly to detect any contamination	No pollution incidents, contaminated storm water system visibly maintained	JH50/COP/001~ Housekeeping Inspections; JE65/OWM/004~ Water Quality Monitoring; JE50/MSP/001~ Water Quality Management; JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy	Routine OHSEC monitoring reports, physical verification and maintenance register	Facility manager, H&E Officer and Safety Officers
334		Water conservation systems to conserve water though the application of principles of reduce, reuse and recycle.	Rössing Uranium should continue to monitor water usage.	Operational phase	Comprehensive, up-to-date and complete water usage records are kept	JE50/OWM/003~ Water Recycling and Re-Use	Verify water use database	H&E Officer and Plant Manager
335			Identify, assess, and implement feasible measures to reduce, reuse and recycle water as part of the water management strategy and set required targets.	Operational phase	Water conservation strategies are formally investigated and implemented where feasible and targets are recorded	JE50/OWM/003~ Water Recycling and Re-Use; JE05/STR/001~ Rössing Water Strategy	Formal investigation of water conservation strategies. Routine OHSEC monitoring and reporting. Rössing Uranium 's water balance and water usage database	H&E, Safety Officer and Plant Manager, and Water Management
336			Heap Leach Facility operation should be integrated with Rössing Uranium's existing water balance system.	Operational phase	Heap Leach Plant water usage data included in water balance system	JE50/OWM/002~ Water Balance Procedure	verify paperwork and water usage database	H&E officer, Plant Manager and Water Management
337	Ripios disposal area	Water management, controlling pollution of ground and surface water resources.	Toe paddocks to be constructed at the base of the dumps to contain the sediment-laden runoff.	Operational phase	Meet the recommended design requirements	JE50/MSP/001~ Water Quality Management	Physical verification	To be agreed
338			The paddocks to be extended as the ripios dump grows. Maintenance of the paddocks to collect the silt should be undertaken to ensure sufficient freeboard is maintained. The paddock should be constructed 25m from the edge of the ripios dump and the wall should be 1000 mm (Simm, 2009). The reason for the paddock is to manage the silt load from the ripios dump. The wall should extend around the edge of the ripios dump outline. It is envisaged that the paddock wall should only be constructed as the ripios dump extends and not all constructed at the beginning of the project.	Operational phase	Meet the layout requirements	JE50/MSP/001~ Water Quality Management	Physical verification	To be agreed
339			Stormwater control measures including cut-off drains above the facility and seepage control system in, beneath and downstream of the ripios disposal area must be planned and implemented and upgraded as required.	On-going and as required	Stormwater controls serve design requirements	JE50/MSP/001~ Water Quality Management; JE50/SOP/002~ Seepage Control Systems; JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	Physical Verification	To be agreed

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
340			Particle tracking modelling indicates that ground water seepage from the Ripios disposal area migrate through Pinnacle and dome gorges toward the SJ open pit. In Panner Gorge, groundwater recovery operation is expected to intercept some of the flow. However some flow, if not controlled would reach the Khan River eventually (considering operations from 2009 to 2024). Rössing Uranium must therefore consider additional groundwater recovery systems (boreholes into the faulted areas in the lower reaches of Dome, Pinnacle and Panner Gorges) in order to prevent leakage of contaminated ground water into the Khan river over the longer term.	On-going and as required	Prevent seepage of contaminated groundwater in to the Khan River.	JE50/MSP/001~ Water Quality Management; JE50/SOP/002~ Seepage Control Systems; JE50/MAN/001~ Tailings Dam Operation Manual – Volume 1; JE50/MAN/002~ Tailings Dam Operation Manual – Volume 2 (in progress)	Review of the environmental monitoring, review of seep-age control systems employed	To be agreed.
341		Visual impact management.	Ripios is to be placed in a manner the results in an organic land shape on completion.	On-going	Organic end shape realised	Project recommendation	Physical verification, specialist review	To be agreed
342			Lighting of the facility should be kept to the efficient minimum, although aircraft warning lights to be provided and maintained.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring	C7~ Aviation Safety	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
343			Lighting in and around the facility should adopt the principle of downward facing, task-specific lighting with limited spillage of light into the surrounding areas. No naked light sources are to be directly visible from a distance, (except for the aircraft warning lights.) Only reflected light should be visible from outside the site.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer
344			Flood lighting of extensive outdoor areas and up-lighting of vertical structures or topographical forms shall not be permitted.	Design and operational phase	All lighting meets the minimum safety requirements. No unnecessary lighting, flood lighting or up lighting is occurring. Facility visibility from key vantage points is limited at night	Project recommendation	Physical verification and routine OHSEC monitoring and reporting	H&E and Safety Officer

CLOSURE PHASE

DECOMMISSIONING PHASE MITIGATION STRATEGY

Rössing Uranium has been planning for mine closure since 1991 and a comprehensive Closure Management Plan (Closure Management Plan) is in place. It has been updated in 2005 and considered two closure scenarios, i.e., an extended mine life to 2016, or an early 2009 closure. Besides being guided by Rio Tinto standards, the Closure Management Plan was also informed by technical studies and incorporates a strategy to deal with the related social issues.

The 2005 Closure Management Plan describes Rössing Uranium's vision for mine closure and identifies the critical areas that would require specific management. These refer to the condition of the pit void, consequences for employees, and the community, the status of contaminated processing and waste sites, and plant and infrastructure implications. Stakeholder consultation is recognised as vital in finding the most sustainable post-closure situation.

Using the approach of risk identification and mitigation, the Closure Management Plan addressed social and environmental risks, as well as business risks. In developing the mitigation measures required to manage the identified risks, the financial and human resources needed to achieve such mitigation were defined and quantified. The further studies that would be required to allow for comprehensive planning for decommissioning are described in the current Closure Management Plan.

The 2005 Closure Management Plan makes provision for the decommissioning of the mine's existing actively used and mothballed infrastructure. It therefore already covers, to a large extent, the requirements for decommissioning of the facilities evaluated during the assessment of the expansion project.

The present SEIA process is part of Rössing Uranium's evaluation of extending the life of the Rössing Mine beyond 2023. The specific components being assessed would become integral parts of the entire mine operation and subject to common operational procedures and future detailed closure planning.

It is recommended that the specific closure and decommissioning phase requirements of the projects included here be incorporated into the next scheduled revision of the existing Closure Management Plan as a minimum. This document should be seen as the precursor to a more comprehensive plan that will follow as the detailed engineering designs become available and the Closure Management Plan document is updated accordingly.

DECOMMISSIONING PHASE OHSEC MITIGATION TABLE

The OHSEC Mitigation Table included herewith is aimed at facilitating effective OHSEC mitigation implementation during the decommissioning phase, as well as monitoring and auditing thereof. To assist with the cross-referencing between OHSEC mitigation prescribed and existing Rössing Uranium HSE management system procedures, a full list of Rössing Uranium HSE management system procedures (as provided by Rössing Uranium) that may be applicable, has been included as Appendix B, although relevant references are provided in the Rössing Uranium HSE Reference column of the OHSEC Mitigation Table. This list and column references are not necessarily exhaustive and could require updating by Rössing Uranium.

Table 6: Decommissioning Phase OHSEC Mitigation Measures

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
1	Best practice and overarching issues	Ensuring that there is an up to date mine closure plan and that all operational decisions are consistent with the closure targets and objectives.	Review the Rössing Mine Closure Plan to incorporate the added facilities and activities seen during mine expansion.	Update the mine closure plan as and when required or at least every five years.	Mine closure plan up to date (i.e., preferably not older than five years at any given time).	Project recommendation and up to date mine closure plan	Verification of documentation	Assigned during update of mine closure plan
2		Ensure adequate financial provisions and resources are available to implement post closure rehabilitation objectives.	It is vital that a properly managed and externally controlled trust fund/funding plan is set up during the operation phase to ensure that sufficient funds are available to implement the rehabilitation and mitigations required for closure. This fund exists and continued contribution to the fund in line with the projected increase in production is required.	Existing fund to remain operational until final sign-off at completion of decommissioning phase	Independent trustees identified and appointed at the establishment of the trust fund. Trustees' mandate agreed and documented.	Project recommendation and up to date mine closure plan	Verification of documentation	Assigned during update of mine closure plan
3			Identify and appoint a specialist rehabilitation and maintenance team, who will manage the site, oversee all rehabilitation and maintenance / decommissioning work for a period of at least five years.	At least five years following mine closure.	Team or independent contractor identified and service contract signed at the commencement of the closure maintenance phase.	Project recommendation and up to date mine closure plan	Verification of documentation and physical verification	Assigned during update of mine closure plan
4			Closure trust fund trustees, authorities and rehabilitation maintenance team to hold quarterly meetings to discuss budget requirements and general progress on issues and challenges.	Quarterly	Without unwarranted exceptions	Project recommendation and up to date mine closure plan	Meeting minutes	Assigned during update of mine closure plan
5		Biological and visual rehabilitation of disturbed areas.	All areas disturbed by mining processes shall undergo ecological rehabilitation as far as is practical.	At closure with follow-up operations up to five years post closure.	All rehabilitated areas shall be monitored and addressed where required for a period of five years.	Project recommendation and up to date mine closure plan	Rehabilitated areas to be signed off by independent specialist, confirming that an appropriate rehabilitation trajectory has been achieved	Assigned during update of mine closure plan
6			Dust suppression and reforming of biological soil crusts through wetting of rehabilitated sites, where ecologically sensitive, high value biodiversity areas are prevalent.	Rehabilitation	All areas that are rehabilitated are to be adequately wetted post rehabilitation.	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
7			Soil compaction is to be released through mechanical scarification and ripping.	Rehabilitation	All areas that are rehabilitated are to be adequately loosened during rehabilitation operations.	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
8			Efforts to protect rehabilitated areas against re-disturbance must be considered. Rössing Uranium should plan a sequential exit strategy to achieve this.	At closure and up to five years of follow-up operations.	All areas that are rehabilitated or access points to such areas are to be sign-boarded with appropriate signage.	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
9			A visual specialist should be commissioned to undertake a reassessment of the mine at the time of the mine closure and make additional recommendations or amend existing recommendations in determining the final visual targets and objectives.	At closure	Implement key recommendations of visual / landscape specialist	Project recommendation and up to date mine closure plan	Specialist recommendations report	Assigned during update of mine closure plan
10		Monitoring of closure targets and objectives.	A multidisciplinary team should be appointed to undertake annual assessments of the closed mine site, identifying and reporting on progress and areas / aspects requiring further attention.	At closure and for at least five consecutive years thereafter.	Best practice	Project recommendation and up to date mine closure plan JA65/MSP/001~ Monitoring and Measurement JA45/MSP/002~ Communication and Reporting	Verification of documentation (report and meeting minutes)	Assigned during update of mine closure plan
11		Minimising the environmental risks associated with the Rössing Uranium landfill sites.	Establish comprehensive monitoring programme to monitor water quality, dust, subsidence, vegetative rehabilitation, gas emissions, soil erosion and environmental protection and measures such as storm water controls on the landfill sites.	Monthly visual inspection.	Defined environmental monitoring programme	Project recommendation and up to date mine closure plan JA65/MSP/001~ Monitoring and Measurement	Environmental monitoring programme and completed records	Assigned during update of mine closure plan or at landfill closure
12			The final cover of the landfill shall comprise at least 300 mm of crushed rock.	At landfill closure	Without unwarranted exceptions	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan or at landfill closure
13			Upon the facility's decommissioning, notices should be posted to indicate the site has been used for solid waste disposal. This notice should be posted on site and recorded on all legal descriptions to avoid its premature use for purposes other than open space.	At landfill closure	Without unwarranted exceptions	Project recommendation and up to date mine closure plan JH50/COP/017~ Barricading and Demarcation	Physical verification	Assigned during update of mine closure plan or at landfill closure
14		Public safety.	Access to the mine shall continue to be controlled for a period of at least five years or until all potential risks have been minimised to an acceptable level.	5 years post closure	Without unwarranted exceptions	Project recommendation and up to date mine closure plan	Physical verification, and final signoff and assessment by a qualified Occupation Health and Safety specialist.	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
15	SJ Open pit	Public access to the open pit to be limited to a safe vantage point.	The site is to be fenced, as required under Namibian legislation. In addition, 3 m high rock berms are to be placed on approaches to block inadvertent vehicular access to the pit and ramps and access roads to be blocked, dug out, or blasted to isolate the pit area. Access to be limited to a safe vantage point.	Closure and decommissioning	Without unwarranted exceptions	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
16		Protecting the public from radiation and radon emanation.	The fences and berms will serve to limit public access to the open pit area and as such protect them from unnecessary radiation and radon exposure.	Closure and decommissioning	Without unwarranted exceptions	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
17		Limiting long term ground water quality implications.	The current water balance and hydrogeological characterisation to be updated to refine predicted potential long-term groundwater quality implications and planning of the post closure scenario to include these findings.	Closure and decommissioning	Without unwarranted exceptions	Project recommendation and up to date mine closure plan JE65/OWM/004~ Water Quality Monitoring JE50/MSP/001~ Water Quality Management JE05/STR/001~ Rössing Water Strategy	Physical verification	Assigned during update of mine closure plan
18			As far as practical, all stormwater runoff from the mine accessory areas should be directed toward the open pit.	All phases	To the satisfaction of the Department of Water Affairs	Project recommendation and up to date mine closure plan JE05/STR/001~ Rössing Water Strategy	Physical verification	Assigned during update of mine closure plan
19	Waste Rock dumps	Mitigate the long term visual impact associated with the waste rock dumps.	The elevated and prominent angular shapes of the waste rock dumps need to be rounded so as to reduce the level of contrast generated by the corners and straight lines created by the benching.	At topping out of the dumps	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
20			The final shaping of the Waste Rock Dump crests must be undertaken in consultation with a suitably qualified landscape practitioner to ensure that these prominent features appear natural in relation to the surrounding landscape, as seen from the surrounding Key Observation Points.	At topping out of the dumps	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
21		Ecological rehabilitation.	Longer-term trials to establish how best to encourage plant colonisation of the upper surface and slopes of the waste dump can be implemented	At topping out of the dumps	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
22		Water and groundwater quality.	Waste dump design must include installation of a store and release cover and ensure drainage is directed towards the open pit. Passive reactive barriers will have to be installed to control potential leachates in the long term.	At topping out of the dumps	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
23		Geotechnical stability.	Dump designs must establish whether the new dump heights require installation of specific drainage measures to ensure and maintain slope stability	At topping out of the dumps	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
24	Ore crushing plant	Minimise the residual visual impact.	All the remaining ore stockpile and structures associated with the stockpile must be removed at mine closure. The site must be shaped to a natural landform.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
25			All items of plant and equipment must be demolished during the closure phase and disposed of in an appropriate fashion, i.e., buried at the bottom of the SJ open pit.	At closure	To the satisfaction of MET	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
26	Tailings facility	Minimise the residual visual impact.	All mechanical infrastructures associated with the agglomeration plant and heap leach pad must be dismantled and removed to a place of disposal.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
27			The rim or leading edges of the tailings facility are to be rounded to eliminate straight lines, creating a more organic or natural landscape. The rounding of the edges as seen from the B2 eastbound would be required to help reduce some of the degree of contrast as seen from this location	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
28		Water related controls and protection.	Water will continue to recharge the tailings facility until mine closure and needs to be controlled for 30 years until active pumping become unfeasible;	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
29			Resistance to wind and water erosion and greater geotechnical stability need to be maintained at greater heights;	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
30			Placement of Ripios cover to prevent water erosion on the outer faces of the tailings pile may be problematic if the outer slopes are steep;	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
31			A reduction in the water inventory of the tailings mass within the existing tailings facility that would make seepage and potential contamination easier to manage and control is not foreseen;	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
32			A decline in surface water drainage from the tailings facility during the operational period is not foreseen;	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
33			Increased overall radon emanation from the site because of the larger surface area of tailings.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
34		Selection of final cover for the tailings facility.	Further test work to confirm the input parameters for the models and the physical and chemical characteristics of the Ripios is needed to confirm its suitability as a final cover.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
35		Geotechnical stability.	The geotechnical stability of the existing tailings mass is sufficient to provide a stable foundation for the deposition of the ripios cover. Initial predictive modelling of the resistance of the ripios to water erosion confirms that the overall stability of the ripios will be good, but further confirmatory analysis of long-term durability, rock integrity and weathering characteristics is required.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
36			No adverse stormwater erosion are expected over the flat or gently sloping areas of the tailings facility and the Dome deposition areas because the ripios will act as a store and release cover balancing infiltration and exfiltration with little or no lateral movement of water. Placement of the ripios over the steeper outer slopes of the tailings facility is critical in order to provide sufficient depth of material to maximise infiltration/exfiltration and minimise lateral drainage. Further analysis of these aspects and also the detailed toe design on the western side of the tailings facility will be required	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
37	Heap leach facility	Removal of contaminated soils to limit spread of contaminants, such as sulphuric acid, pyrite, water treatment chemicals and asbestos.	All contaminated areas around the facility to be identified, risks to be determined and a clean-up strategy developed, and contaminated soils removed to the hazardous waste site or tailings facility.	Closure and decommissioning	Without unwarranted exceptions for high risk contaminants	Project recommendation and up to date mine closure plan	Physical verification of removal to hazardous waste site or tailings facility	Assigned during update of mine closure plan
38			The area needs to be covered with a layer of waste rock to reduce wind erosion and dust (except for area covered by the heap leach pad liner which will serve the same purpose).	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
39		Removal of all structures and rehabilitation and re-contouring of the landscape.	All structures related to the heap leach facilities, including the agglomeration tanks and concrete foundations, to be demolished unless proven to be beneficial in covering low level contaminants. Highly contaminated materials to be disposed of at the hazardous waste site, whilst general rubble and low level contaminated materials are to be disposed of and covered in the pit. The areas are to be re-contoured to resemble the natural landscape as far as possible. The potential for planting or otherwise enhancing the rate of plant re-colonisation is to be investigated.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
40			This equipment has the potential for reuse by other mining operations following clean-up and refurbishment. If beneficial re-use or recycling as scrap is not viable, plant will be dismantled and disposed of within the open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
41			All items of plant and equipment must be demolished during the closure phase and disposed of in an appropriate fashion, i.e., buried at the bottom of the SJ open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan
42		Storage ponds and Continuous Ion Exchange plant.	The contaminated liners may be buried beneath Ripios, but tanks, pumps, piping and associated infrastructure will require disposal in the hazardous waste site for low level radioactive waste or within the open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
43		Heap leach comminution, conveying & agglomeration circuit.	• Transfer all crushed ore from plant, stockpiles, surge bins, screens and agglomerator drums to final heap leach; • Isolate and disconnect power and water supplies to plant; • Clean and decontaminate crushers, crusher housing, bins, stockpile area, screens and screen housing; • Clean and decontaminate agglomerator and conveyors; • Dismantle crushers, crusher housing, bins, screens, screen housing and agglomerator; • Decontaminate surrounding soil and foundations; • Clean, decontaminate and dismantle conveyors; • Sell for re-use by other mines or sell as scrap metal; • Where sale is not viable dispose of within open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
44		Heap Leach Racetrack, stackers and conveyors.	• Isolate and disconnect power and water supplies to heap leach stackers, Ripios reclaim stackers and conveyors; • Clean and decontaminate stackers and conveyors; • Dismantle stackers and conveyors; • Sell for re-use by other mines or sell as scrap metal; • Where sale is not viable dispose of within open pit; • Remove drainage pipes and dispose of in hazardous waste area or cover with Ripios as part of final cover; • Puncture HDPE liner at base of each dump; • Grade (where necessary) and cover base of exposed leach pads and exposed tailings with minimum 1.0 m depth Ripios from remaining spent leach dumps.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
45		Heap Leach Storage ponds and Continuous Ion Exchange/Solvent Extraction plant.	• Drain pregnant, intermediate and barren leach ponds, fresh water rinse pond, all tanks, pipes and pumps; • Backfill ponds with Ripios; • Isolate pumps and remove for disposal in hazardous waste site; • Isolate and disconnect all other utilities (compressed air, acid tanks); • Remove pipes to plant etc. and dispose of in hazardous waste site; • Descale and clean acid tanks and all reagent mixing tanks; • Dispose of all liquors by evaporation and add residues to sump in Ripios/ tailings facility; • Remove resins from Continuous Ion Exchange carousels and dispose of in hazardous waste site; • Clean and decontaminate Continuous Ion Exchange pre-filter plant and carousels; • Demolish all tanks and dispose of in open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
46		Heap Leach Miscellaneous.	• Clean up reagent handling equipment at the reagent storage area in Walvis Bay; • Clean reagent storage areas at Walvis Bay for disposal to further industrial use; • Clean and remove all remaining structures within the heap leach area and dispose of in open pit. • The heap leach operation will utilise the FPR plant, and no additional measures are required for these components.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan JK65/PRD/003~ Disposal of Contaminated Items E5 - Environment Standard~ Hazardous Material and Contamination Control B4 - OH Standards~ Hazardous substances	Physical verification	Assigned during update of mine closure plan
47	Ripios disposal area	Minimise the residual visual impact.	All items of plant and mechanical equipment must be demolished during the closure phase and disposed of in an appropriate fashion, i.e., buried at the bottom of the SJ open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan

ID:	Aspect	Management Objective	Management Action	Action Frequency	Target / Standard	Rössing Uranium HSE Reference	Indicator	Responsibility
48		Plans relating to the decommissioning of and use of Ripios as cover material for the tailings facility.	• Grading of existing tailings on eastern arm of tailings facility and place Ripios to a minimum depth of 1.0 m; • Undertake design for western toe to incorporate marble foundation placement, silt trap and rock berm; • Place vegetation promoting cover (if required) on final layer of ripios on Dome using truck and dozer; • Dismantle conveyors and stackers; • Sell for re-use by other mines or as scrap metal; • Where sale is not viable dispose of within open pit.	At closure	To the satisfaction of the HSE department / visual specialist	Project recommendation and up to date mine closure plan	Physical verification	Assigned during update of mine closure plan

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APPENDICES

APPENDIX A: RÖSSING URANIUM HSE POLICY

Rio Tinto

RÖSSING URANIUM LIMITED
HEALTH, SAFETY AND ENVIRONMENTAL POLICY

June 2011

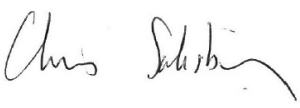
Excellence in Health, Safety and Environmental (HSE) management is one of the foundations of Rössing's vision to be a safe, long-term supplier of U_3O_8 to the nuclear power industry around the world. This is in line with our commitment to zero harm, corporate citizenship, social responsibility and sustainability.

To accomplish this, Rössing will:

- Recognise that nothing is more important than the protection of the Health and Safety of our stakeholders, specifically, our employees, contractors, host communities, clients and shareholders.
- Commit to operate our business with respect and care for both the local and global Environment in order to prevent and mitigate residual pollution.
- Understand and manage the effects of our product through its entire life cycle to deliver continuous improvements in a sustainable manner.
- Be in full compliance with all applicable legal, standards and requirements.
- Seek continual and rapid improvement in HSE performance to create a Zero Harm environment that is in line with leading practices.
- Provide adequate HSE training and resources to employees, contractors and visitors.
- Identify and assess hazards arising from our activities and manage associated risks to the lowest practical level.
- Enhance biodiversity protection by assessing and considering ecological values and land use aspects in investment, operational and closure activities.
- Continue in our efforts to raise the awareness of HSE issues to our host communities.
- Regularly review our performance and publicly report our progress.
- Communicate our commitment to this HSE policy to all our stakeholders and ensure that this policy is readily available to all our stakeholders.

In implementing this Policy we will engage in constructive dialogue with our employees, contractors, host communities and all other stakeholders in sharing relevant information and responsibilities for meeting our requirements.

The HSE policy document is complimented by the HSE strategy document which is readily available to all our stakeholders.



CHRIS SALISBURY
Managing Director

APPENDIX B: LIST OF RÖSSING URANIUM ISO ENVIRONMENTAL MANAGEMENT SYSTEM PROCEDURES

HEALTH

B1 - OH Standards	Particulate and gas or vapour exposures
B2 - OH Standards	Hearing conservation
B3 - OH Standards	Manual handling and vibration
B4 - OH Standards	Hazardous substances
B5 - OH Standards	Radiation
B6 - OH Standards	Thermal stress
B7 - OH Standards	Fitness for work
B8 - OH Standards	Legionnaires disease
B9 - OH Standards	Travel and remote site health
B10 - OH Standards	Occupational exposure limits

JK65/COP/003	Code of Practice for the Control of Asbestos At Work
JK65/COP/005	Heat Stress
JK65/COP/002	Occupational Hygiene Monitoring
JK65/COP/011	Human Vibration Protection
JK65/PRC/003	Area Noise Survey
JK65/PRC/004	Personal Noise Survey
JK65/PRC/009	The Measurement of Hand-Arm Vibration
JK65/PRC/008	The Measurement of Whole Body Vibration
JK65/PIN/005	Management of Health Instruments and Equipment
JK65/PRC/011	Diesel Particulate Monitoring
JK65/PIN/001	Aero testing Procedure
JK50/STD/001	RUL Occupational Exposure Limits
JK65/PRC/010	Particulate Monitoring
JK65/PRC/003	Area Noise Survey
ENV/INS/005	Calibration of Personal Air Sampling Pumps
ENV/INS/016	Operation and maintenance of the Gilair-3 air sampler
ENV/INS/017	Gilian Gilibrator-2 Calibrating System

SAFETY

C1	Isolation
C2	Electrical Safety
C3	Vehicles and Driving
C4	Working at Heights
C5	Confined Spaces
C6	Cranes and Lifting
C7	Aviation Safety

JH50/COP/001	Housekeeping Inspections
JH50/COP/002	Isolation
JH50/COP/003	Earth leakage protection relays
JH50/COP/004	Portable Electrical Equipment
JH50/COP/005	Electrical Installations
JH50/COP/006	Labelling of Switches, Isolators and Valves
JH50/COP/007	Vehicles and Driving
JH50/COP/010	Confined Spaces
JH50/COP/011	Cranes and Lifting
JH50/COP/012	First Responder Training
JH50/COP/013	Storage of Flammable & Explosive Material
JH50/COP/014	Aisles, Storage & Demarcation
JH50/COP/015	Stacking & Storage
JH50/COP/016	Colour Coding
JH50/COP/017	Barricading and Demarcation
JH50/COP/018	Machine Guarding
JH5O/COP/019	Compressed Gas Cylinder – Pressure vessels
JH50/COP/020	Hand Tools
JH50/COP/021	Work Yard and Back Areas
JH50/COP/O22	Appointment of Safety Superintendent
JH50/COP/023	28.5(b) Appointment of Responsible persons

JH50/COP/024 Induction
JH50/COP/025 Safety Training Courses
JH50/COP/026 Permit to Work and Clearances System
JH50/COP/027 Health & Safety off the Job
JH50/COP/028 Injury - Disease statistics
JH50/COP/029 Injury Experience Information Board
JH50/COP/030 Working at Heights
JH50/COP/031 Personal Protective Equipment
JH50/COP/032 The role of an OHSE representative

ENVIRONMENTAL

E2 - Environment Standard Air Quality Control
E3 - Environment Standard Acid Rock Drainage Prediction and Control
E4 - Environment Standard Greenhouse Gas Emissions
E5 - Environment Standard Hazardous Material and Contamination Control
E6 - Environment Standard Noise and Vibration Control
E7 - Environment Standard Non-Mineral Waste Management
E8 - Environment Standard Mineral Waste Management
E9 - Environment Standard Land-Use Stewardship
E10 - Environment Standard Water Use and Quality Control

JA50/PRC/001 Purchasing of chemicals
JE/50/PIN/001 Monitoring ambient dust levels using high volume samplers
JE/50/PIN/003 Dust Deposition Sampling
JE/50/PIN/002 Multi-Vertical Sampler procedure
JE/50/PIN/004 Downloading data from the Osiris Dust Monitor at the crushing circuit
JE50/WMP/001 Non-mineral waste management
JE50/WMP/002 Disposal and re-use of hydrocarbons
JE50/WMP/006 Disposal practice for the Rössing Uranium landfill site
JE50/WMP/010 Procedure for action taken in the event of diesel or oil spillage
JE50/WMP/012 Disposal of oil and diesel filters
JE50/WMP/014 Bioremediation of hydro-carbon contaminated soil and sludge
JE50/WMP/015 Disposal of oil trap residue to oil separation tank

WATER MANAGEMENT AND TAILLINGS DAM

JE10/STD/001 Standard Compliance (Rio Tinto)
JE05/STR/001 Rössing Water Strategy
JE20/OWM/001 Freshwater Demand Planning
JE50/MSP/002 Freshwater Supply Management
JE65/OWM/001 Khan River Water Supply
JE65/OWM/002 Khan River Vegetation Monitoring
JE50/SOP/001 Oil Separation Plant Operation
JE50/SOP/002 Seepage Control Systems
JE65/OWM/006 Seepage Recycling on the Tailings Dam
JE65/OWM/003 Sewage Plant Monitoring
JE50/SOP/003 Sewage Plant Operation
JE50/OWM/001 Treatment of TDX Boreholes with Sodium Hydroxide
JE50/OWM/002 Water Balance Procedure
JE65/OWM/004 Water Quality Monitoring
JE50/MSP/001 Water Quality Management
JE50/OWM/003 Water Recycling and Re-Use
JE50/OWM/005 Weekly Determination of RDS and Seepage Evaporation Rates
OWM/WSM/007 Pump Installation
JE50/MAN/001 Tailings Dam Operation Manual – Volume 1
JE50/MAN/002 Tailings Dam Operation Manual – Volume 2 (in progress)

RADIATION

JK50/COP/006 Code of Practice for protection against ionising radiation
JK65/COP/007 Protection against Ultra Violet Radiation
JK65/PRD/001 Radiation Protection when using Sealed Radioactive sources
JK65/PRD/002 Urinalysis Sampling Procedure
JK65/PRD/003 Disposal of Contaminated Items
JK65/PRD/004 Removal of Scrap
JK65/PRD/005 Removal of Equipment & Material From Site
JK65/PRD/006 Decontamination of Contaminated Items

JK65/PRD/007 Transport of Contaminated Items
JK60/PRD/009 Uranium Oxide Emergency Spillage Procedure
JK65/PRD/010 Monitoring and identification of contaminated Items
JK65/PRD/011 Product shipment inspection and monitoring
JK65/PRD/012 Baseline Monitoring for Empty Containers
JK65/PRD/013 Analysis of Smear samples with the Hand-E-Count
JK50/PRD/014 Maintenance work carried out on the Continuous Ion Exchange contractors
JK65/PRD/015 Area Radiation Survey for Total Alpha and Beta Contamination
JK65/PRD/016 Area Survey for External Gamma Radiation
JK65/PRD/018 Contact Radiation Monitoring (Beta/Gamma) in Final Product Recovery
JK65/PRD/019 The Monitoring of Personal Radiation Dose
JK65/PRD/020 Personal External Radiation Dose Monitoring with a Dosicard
JK65/PRD/021 Monthly Pregnant Test
JK65/PRD/022 Container Packing and Strapping
JK65/PIN/002 Operating the Thermo Eberline HandEcount
JK65/PIN/003 Instrument Procedure for the Automess 6150 AD4 Dose Rate Meter
JK65/PIN/004 Operating Instructions for the Electra and DP2R/4A Probe
JK65/PRC/007 Confined Space Clearance

HSE MANAGEMENT SYSTEM

JA05/COP/003 Environmental Management System Code of Practice
JA05/POL/001 HSE Policy Strategies
JA10/MSP/005 Updating of the Legal Register
JA15/MSP/006 Hazard Identification, Risk Evaluation and Risk Management
JA30/MSP/013 Identification of training needs and training methods
JA35/MSP/013 HSE Purchasing Criteria
JA45/MSP/002 Communication and Reporting
JA45/MSP/007 External Communications/Complaints
JA40/MSP/003 Document Control Procedure
JA65/MSP/001 Monitoring and Measurement
JA70/MSP/010 Reporting and Investigation of HSE incidents and/or non-conformances
JA75/MSP/004 Record-keeping Procedure
JA80/AUD/001 Procedure carrying out environmental audits at Rössing Uranium.