

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

DIRECTORATE OF ENVIRONMENTAL AFFAIRS

ENVIRONMENTAL AUDIT - (SELF AUDIT QUESTIONNAIRE)

Please Take Note:

- 1. All questions are mandatory and thus must be fully completed
- 2. knowingly providing false or misleading information is an offence as in terms of Section 43 (1) of the Environmental Management Act, Act No. 7 of 2007.

Activity: Renewal of environmental clearance for exploration activities on EPL 7539 for base and

..... rare metals, and precious metals in the Khomas Region, Namibia

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OVERVIEW AND GENERAL INFORMATION

a)	Name of the unit and complete address	PO Box 2055, Swakopmund, Namibia
b)	What are the main activities carried out on site?	soil sampling, analysis, geophysical surveys, airborne electromagnetic survey and drilling.
c)	Number of people employed on site (temporary + permanent)	Currently none. Historically, between 4 and 15 people typically in phases of 2 to 3 months at a time. Normally 2-6 permanent staff and 4 – 12 temporarily employed local staff
d)	Is a copy of the site layout plan available?	Yes
e)	Are there any other projects in the area having similar activities?	Yes
f)	Environmental Clearance Certificate (ECC) Number and date issued (if available)	ECC - 001406; Date of issue: 08-06-2021

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2. SITE HISTORY AND DETAILS	
a) When was the facility established?	N/A
b) Who owns the facility/industry?	N/A
c) Who owns the land and what is the type of the land?	
	Farmlands
d) Is the land ownership/lease document available?	Yes
e) What is the total land area?	98257 ha
f) What was the previous land use of that area (commercial, residential, industrial or agricultural)?	Agricultural
g) Does the facility have any citations or complaints pending against it?	No
h) Has there ever been any major accidents on-site?	No

3. PROCESS REVIEW	Α	N/A	Comments
a) Give a detailed description of the production process.		X	
b) Total production capacity of the plant/ project in terms of tonne per annum		X	
 c) What are the inputs required in the production process (preferably in the form of a list containing name, amount/quantity required and their price? 		X	
d) What are the outputs produced (including pollutants) and their quantities?		X	
 e) Provide a list of all the machinery and utilities used on- site along with their capacities number, energy f) consumption and time in use. 			No active machinery in use on site. Has been variable throughout the period. Periods of having 1-2 4x4 Land cruisers / off road personnel vehicles. 1 phase of air core drilling with a 4x4 off road truck, 2-3 4x4 land cruisers, and a 4x4 truck operating typically between 6-8 hours a day for a period of approximately 1 month. 1 phase of diamond drilling, with a diamond drill rig, 4x4 support vehicle, and 2-5 off road 4x4 land cruisers / bakkies – operating around 8 hours a day for a period of about 2-3 weeks.
g) How often is maintenance work carried out on-site?			Weekly
h) Does any recycling/reuse of material take place on-site?	N		

4. LICENSE AND PERMITS	Α	N/A	Comments
 a) Does the facility have a valid factory license? If not, has the facility applied for it? Is a copy of the application form available? 		X	

b) Does the facility have a valid Consent to Operate (certificate? If not, has the facility applied for it? Is a copy of the application form available?	CTO)		X	
c) Does the facility generate hazardous waste? If it d does the facility have authorization for storage, ha and transportation of hazardous waste as per the Hazardous Waste (Management and Handling) Ru not, has the facility applied for it? Is a copy of the application available?	Indling		X	
5. AIR EMISSIONS	Α	N/A		Comments
a) What are the sources of stack and fugitive emissions in the facility?		X		
b) Has stack and ambient monitoring carried out?		Х		
 c) Does emissions meet standards specified in the CTO certificates? 		X		
d) Are monitoring records/reports maintained?		Х		
e) What are the air pollution control device that has been installed?		Х		
 f) What is the frequency of cleaning and maintaining the air pollution control device? 		Х		
g) Are site processes and operations free of significant fugitive air emissions?		Х		

6. Water consumption and wastewater generation

6.1	Freshwater	Α	N/A	Comments
a)	What is the source of freshwater? Is it metered or not?			Supplied by local authorities in the area i.e Rehoboth or supplied from farmer's boreholes with their permission.
b)	How many boreholes are installed in the site?		Х	
c)	How many flow meters are installed in the plant? What are their readings?		X	
d)	Schematic of a raw water treatment plant and DM plant e.g Sceptic tanks, filtering systems etc		X	
e)	Latest groundwater quality test reports		Х	
f)	Specify average daily water consumption of the entire plant and in township/colony (m3/day):			25 m ³
g)	Has the plant / activity studied the impact of its water consumption on respective surface water source and/or groundwater table?		X	
h)	Break-up of average freshwater consumed for last two financial years?			2 main phases of water usage related to drilling operations. A 1 month period of approximately 1000- 2000L per day. A 2-3 week period of approximately 5000- 10000L per day.
i)	Specific water consumption values for last two financial years (in m3/tonne or m3/Mwh, etc.):			I would estimate around 150 000L, but we do not have the means to physically quantify this accurately.
j)	Chemicals used in water treatment plant with quantity and price:		X	
k)	What is the capacity of the demineralization (DM) plant? What is then average quantity of water treated in DM plant (m3/day)?		X	

I)	Does the plant/ project have rainwater harvesting (RWH) system? If it does, is it rooftop, paved or unpaved?	X	
m)	Method of harvesting rainwater—Storage in artificial tanks/recharge into the pit/ trench/well	Х	
n)	Total rainwater harvesting potential of the plant	Х	
o)	Rainwater harvesting potential of the site developed by the plant:	X	
p)	Total rainwater harvesting done by the plant	Х	
q)	Frequency of monitoring of the groundwater quality and quantity (pre- and post-monsoon) and frequency of cleaning the rainwater harvesting catchment/storage system	X	
r)	How is the harvested rainwater utilized by the plant/ project?	Х	
s)	Key measures taken by the plant/project for water conservation in the past three years and water saving achieved in terms of m3	X	

6.2 Wastewater	Α	N/A	Comments
 a) Schematic diagram of an Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) along with their capacities (attach) 		X	
 b) Latest laboratory test reports of ETP and STP inlet/outlet streams 		X	
c) Does the plant/ project have separate ETP for its different products?	;	X	
 d) Total effluent generated by plant/ project (including all products) in last two financial years 	5	X	
 e) Total sewerage generated by plant/ project and colony in last two financial years 		X	
 f) Provide the details of wastewater generation and recycling in the entire facility 		X	
g) Does the plant/ project monitor the impact of wastewater on the receiving waterbody/ land?		X	
h) What is the total number of outlets for effluent discharge from the plant/ project?		X	
 Name of WTP unit/s (filtration unit/softening unit/reverse osmosis plant etc.) and its capacity and average quantity of water treated in filtration plant (m3/day) 		X	

7. NOISE POLLUTION	Α	N/A	Comments
 a) Does the facility have a valid factory license? If not, has the facility applied for it? Is a copy of the application form available? 		Х	

8. FUEL CONSUMPTION	Α	N/A	Comments

-	List the different type of fuel used in different areas of the plant/ project			Standard diesel and petrol.
b)	Quantification of fuel used in each process and its calorific value			Fuel was solely for the operating of vehicles / the drill rig. I am not sure of the exact calorific values – typical fuel purchased at any petrol station.
-	How is the industry storing the different types of fuel?			Fuel was not stored directly on site. It was for the vast majority of the time deposited straight into vehicles from fill up. Occasionally some safely sealed jerry cans were utilized.
d)	If they are using:			
	Gas —Is the supply regular? If not, mention the number of hours.	Ν		No use of gas.
	Biomass—Is it available for the entire year?		Х	
	Coal —Are they using low ash coke or high coke and the supply is regular or not?		Х	
9. 0	CHEMICAL HANDLING AND STORAGE	Α	N/A	Comments
a)	What are the various types of chemicals stored on-site?			Minor amounts of diluted hydrochloric acid – typically only 5- 20ml on site at any time of between 5-10% diluted HCl. Various drilling muds were utilized during drilling phases together with water. These muds are biodegradable lubricants and are a global industry standard for similar operations.
b)	Is a list of chemicals available?			Not specifically.
c)	How are chemicals transported?			In safely sealed appropriate plastic dripper bottles or in industry standard jugs capable of safely housing the fluid.
d)	What kind of containers are there for storing the chemicals?			Standard containers in which the chemical was purchased and in various smaller appropriate safe dripper bottles.
e)	Are there any above or underground chemical storage tanks on-site?		Х	
f)	Are any of the chemicals toxic or harmful? How many of them are hazardous?	N		
g)	Are all the chemicals labelled?	Y		
h)	Are the chemical containers' lid closed after use?	Y		
i)	Are records of chemicals and dyes usage maintained in the logbook?	Y		

	SOLID AND HAZARDOUS WASTE NAGEMENT	A	N/A	Comments
a)	What kinds of solid waste are generated on- site?			Typical waste associated with food, equipment, packaging. Plastic and cardboard, eating containers etc.
b)	What is the quantity of solid waste generated?		Х	
c)	How is the solid waste disposed of?			Disposed at the nearest registered Municipal landfill site.
d)	Is any of the waste reused or recycled?	Ν		

e)	What are the sources of hazardous waste generation on-site?	X
f)	What is the quantity of hazardous waste generated?	X
g)	How is the hazardous waste disposed of?	X
h)	Are hazardous waste disposal records maintained?	X
i)	Are any of the hazardous wastes treated on- site?	X
j)	Where are the hazardous wastes stored before disposal?	X

11. OCCUPATIONAL HEALTH AND SAFETY		Α	N/A	Comments
a)	Does the facility have a site emergency plan?	Y	<u> </u>	
b)	If yes, then has this plan been documented?	Y		
c)	What are the recognized hazards in the facility?		X	
d)	Are fire extinguishers available in the facility?	Y		
e)	What type of fire extinguisher is available?			3kg DCP models in each vehicle and additional 10kg units on site at all times during active drilling work.
f)	Are the fire extinguishers functional?	Y		
g)	Are facility personnel trained in its use?	Y		
h)	Is personal protective equipment (PPE) available for use?	Y		
i)	Do the workers use PPE?	Y		
j)	Are health check-ups for workers conducted?	Y		
k)	Do the workers know whom to contact in case of an emergency?	Y		
I)	Has any accident ever occurred on-site?	N		

Declarations

I declare that the information that I have provided in this questionnaire is to the best of my knowledge, true and reliable.

Signature:

Date: 2 August 2024

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