

Appendix 5:

Copy of recommended course content for Environmental Awareness Training

DRAFT INDUCTION TRAINING MANUAL (2021)

To be implemented in conjunction with 2021 EMP para 32 (32.1 to 32.7) Impact Management Actions and 36.1 Environmental Awareness Plan requirements

A. INTRODUCTION

Environmental management is a team effort. All management and staff are responsible for avoiding environmental damage and ensuring good environmental management.

The keys to achieving this are:

- Being aware of the environment and the need to protect it
- Understanding and recognising the things to protect and the do's and don'ts with special reference to para 32 of the EMP especial protocols on waste and hydrocarbon management, drilling and blasting, noise and dust
- Knowing the reporting procedure
- Taking pride in good environmental housekeeping

Briefly introduce the member to the Legal requirements requiring environmental management

- Requirement of the MPRDA (Mineral & Petroleum Resources Development Act)
 - to have an EMP (EMPR) Environmental Management Programme

(show the document, (the approved EMP programme), to all staff in the induction and briefly note the items it covers and reflect on operational rehabilitation/ environmental management towards achieving the end-of-prospect lack of impact

- Additional laws
 - National Water Act
 - use of water
 - discharge of sewage
 - avoidance of groundwater contamination by oils, sewage or other

National Environment Management Act (NEMA) to which the MPRDA subscribes

National Heritage Act which requires care be taken of heritage and cultural issues – specifically Archaeology/Palaeontology in this case

Targets:

- Developing an awareness and appreciation of the Environment
- Good results in annual Environmental Audit Reports (EAR's)
Explain EAR and how the questions are asked with compliance answers

Explain why you need Environmental Management?

1. Environmental Management is an integral part of normal good overall management (Good Housekeeping) together with
 - Safety
 - Efficiency (Productivity); and
 - Planning (specific activities in specific areas)
2. You need environmental management even in such small operations such as this where the site links with its surrounding environment:
 - The nearby roads
 - The surrounding land uses
 - Fire hazard (threat to surrounding land uses)
 - Poaching/ stock theft by staff
 - Care in the use of hydrocarbons etc
3. Explain the importance of avoidance of disturbance of the surrounding veld
4. Despite the small scale of this project, the need to limit:
 - Dust on surrounding land uses and roads and farmsteads
 - Environmental Noise
 - Soil and Water pollution
 - Impact water treatment works
 - Possible palaeontology finds in excavation
5. Deal specifically with the “Chance and find procedure” for recognition, immediate action and reporting of any possible Archaeological or paleontological items
6. **Who does the damage to the Environment?**
 - a) **Management:**
 - (i) by not being fully informed themselves of the content of the EMP and other decisions/controls
 - (ii) by not informing the staff of proper procedure and the environmental consequences of incorrect activities
 - (iii) by not conducting regular monitoring themselves
 - (iv) by not developing their own personal sensitivity to environmental impact
 - b) **Equipment Operators:**
 - (i) by driving equipment or moving items like pipes or cables outside of demarcated roadways, movement areas.

NB: Always stay in roadways

NB: Respect no-go areas

- (ii) by dumping material in fields (outside of demarcated areas)
- (iii) by not reacting and immediately reporting fuel, oil or hydraulic fluid leaks
- (iv) by not keeping a lookout for nor reporting possible Archaeological/Paleontological items

c) General Staff:

- (i) by using the field as a toilet (NOT ALLOWED)
- (ii) by littering with lunch wrappings, bottles
- (iii) by short-cut walking paths through fields

6. What the Staff should be aware of to look out for (Illustrate this to the members using copies of plans from the EMP):

- Be aware that the Mining Permit is restricted in size and prevent unnecessary access to other areas
- No-go areas (get to know where these are, and how to recognise natural veld areas)
 - Don't enter these areas and don't drive into them
- Recognise the surrounding areas and treat them as no-go areas.
 - Don't disturb them
 - Don't drive into them
 - Don't walk through them
 - Don't use them as toilet areas
- Oil, fuel or hydraulic leaks
 - As soon as you see these, report them to the operator or the foreman/manager
- Report littering
- Recognise (know the difference between) domestic waste and industrial waste and use correct procedures for oil/fuel polluted items
- Know the refuelling and oil change procedure if you are involved in it to know how to avoid pollution

7. Reporting Procedure : Oil, Fuel, Hydraulic Leaks

If you see an oil/fuel/hydraulic leak immediately raise the driver/operator's attention to the fact that there is a leak or notify your supervisor to convey the message to the production manager and/or foreman.

8. Other environmental incidents reporting procedure

These include littering, silt run-off, erosion etc. Report these at end of shift or lunch time to supervisor / manager

9. **Environmental incident record**

The mine manager and production manager shall have a book for recordal of all environmental incidents which occur at the quarry.

10. **Penalties for Environmental Damage**

The Environmental Control Officer in liaison with management may impose:

- Fines for transgressions of the environmental management rules and/or
- Set performance and compliance conditions of employment in the employment contracts

During the planning and the establishment of the quarry this manual should be expanded upon to include any additional elements which should become part of the discussion of this environmental awareness program during monthly safety meeting.