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MEADOWLANDS CIVIC CENTRE - REFURBISHMENT WORKS

ENVIRONMENTAL MANAGEMENT PLAN

PREPARED FOR:



SEPTEMBER 2022

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1. ABBREVIATIONS

ECA Environmental Conservation Act (Act No.73 of 1989)

EO Environmental Officer

ECO Environmental Control Officer

EIR Environmental Impact Report

EMP Environmental Management Plan

MPRDA Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)

NEMA National Environmental Management Act (Act No. 107 of 1998)

NEMWA National Environmental Management Act (Act No. of)

NWA National Water Act (Act No. 36 of 1998)

NVFFA National Veld and Forest Fire Act (Act No. 101 of 1998)

SES Site Environmental Specification

OHSA Occupational Health and Safety Act (Act No: 85 of 1983)

2. **DEFINITIONS**

	an environmental tool used to ensure that undue or reasonable
Environmental	avoidable adverse impacts of the construction, operation and
Management Plan	decommissioning of a project are prevented, and that the
	positive benefits of the projects are enhanced
Environment	Means the surrounding within which human exist and that are
	made up of: the land, water, atmosphere of the earth, micro-
	organisms, plant and animal life.
Wastes	are substances or objects which are disposed or are intended
	to be disposed
Hazardous Waste	It's waste that poses a potential threat to the public health and
	environment
Drip trays	A metal/ plastic container to be placed under stationary/
	equipment to prevent environmental pollution caused by
	leaking liquids or chemicals.

3. **LEGAL REQUIREMENTS**

Employees and Contractors shall ensure that the best possible working practices are utilised and all legislations concerning the natural environment, pollution and the built environment are strictly enforced to ensure adequate protection of the environment.

- Environmental Conservation Act (Act No.73 of 1989)
- National Environmental Management Act (Act No. 107 of 1998)
- National Environmental Management Act: Waste Act (Act No.
- National Veld and Forest Fire Act (Act No. 101 of 1998)
- National Water Act (Act No. 36 of 1998)
- Hazardous Substances Act (Act No.15 of 1973)
- National Road Traffic Act (Act No. 93 of 1996)
- National Heritage Resource Act (Act No.25 of 1999)
- Minerals and Petroleum Resource Development Act (Act No.28 of 2002)
- National Environmental Management Act (Act No.39 of 2004)
- Occupational Health and Safety Act (Act No.85 of 1993)

4. DEFINITION OF AN ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management plan (EMP) is defined as an environmental tool used to ensure that undue or reasonable avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented, and that the positive benefits of the projects are enhanced/ a site-specific plan developed to ensure that all necessary measures are identified and implemented in order to protect the environment and comply with the environmental legislation.

4.1 SCOPE OF EMP

The scope of the EMP consist of an Environmental Impact Report.

The Environmental Impact Report includes the following:

- Noise
- Solid waste management
- Storage and utilisation of hazardous substance on site
- Fire control and emergency procedure
- Leak and spillage Management
- Materials handling and storage (e.g Hazardous substances)
- Ablution facilities
- Access
- Dust

4.1.1 Waste management

- The contractor shall provide adequate waste bins/ skips on site offices, laydown area and construction sites.
- The contractor shall ensure that solid waste on site shall be strictly controlled and managed and littering shall be avoided.
- It is the responsibility of the Environmental Officer to ensure that waste bins/ skips are emptied.
- Post signs for different type of waste onto the wheelie bins/ skips.
- The Environmental Officer shall ensure that the wheelie bins/ skips are emptied immediately when they become full and place such waste into the skip supplied by...... to avoid overflow.
- Hazardous waste shall be stored separately from general waste.
- Hazardous waste is waste that poses potential threats to the public health or the environment.
- Hazardous waste shall be identified, transported and disposed of by the contractor/ employees in accordance with the Minimum Requirements for Handling and Disposal of Hazardous Waste to ensure a policy of safe and efficient handling, treatment and disposal of hazardous waste.

4.1.2 Fire control and emergency procedure and preparedness

- The contractor shall ensure that fire is prohibited.
- The SHE and Environmental Co-ordinator/ Officers shall ensure that adequate fire extinguishers/ equipment are available on site.
- The contractor shall develop emergency protocols or procedures for dealing with fires.
- Smoking shall not be permitted in those areas where it is a fire hazard. Only
 designated smoking areas shall be used as smoking zone.
- The telephone numbers of emergency services, including the local fire fighting services shall be posted in the offices, boardroom, at the gate/ entrance and construction site.
- The contractor shall ensure that his employees are aware of the procedure to be followed in case of fire.

- The contractor shall also ensure that his employees are aware of the emergency procedure in case of dealing with spills and leaks, and shall ensure that the necessary materials and equipment for dealing with spills and leaks is available on site at all times.
- The contractor shall maintain spill kits on site at all times.

4.1.3 Materials handling and storage

- The contractor shall inform delivery drivers' re-requirements on the specifications.
- Secure materials during transport.
- All hazardous substances that cause/ pose a threat to the environment shall be disposed on the registered waste disposal site.

4.1.4 Sewerage/ Toilets (Ablution Facilities)

- The contractor shall ensure that his employees are provided adequate temporary toilet facilities that shall be portable/chemical or shall be drained to septic tanks.
- Wash basins shall be provided with running water and shall include soap and towel/ hand paper towel.
- The contractor shall make arrangements for emptying the ablution facilities and transport of waste to the local sewerage treatment works for disposal.

4.1.5 Equipment Maintenance and storage

- The contractor shall ensure that all mobile equipment/ plant is in good working order.
- Any mobile equipment/ stationary that leaks shall be repaired immediately or removed from site.
- Drip trays shall be placed underneath all stationary/ mobile equipment or parked plant and when servicing equipment away from designated areas to avoid spillages on the ground.
- Drip trays shall be inspected and emptied daily.
- Drip trays shall be closely monitored during rainy events to avoid overflow.

- The washing of equipment/ stationary is strictly prohibited. Vehicle cleaning shall be undertaken in designated wash bays, which shall have an impermeable floor and bunded to contain runoff and direct it into a sump.
- All oil leaks on equipment are reported and receive attention as soon as possible

4.1.6 Oil and Chemical Storage (Hazardous Chemical Storage)

- All hazardous chemical substances must be in suitable containers clearly labelled as to the contents and medium/ high risk substances with the appropriated warning sticker.
- All oils, diesel and chemicals with clean-up spill kits (oil and chemical spill kits) shall be stored on the flammable liquid store which will have a bund wall.
- Diesel shall be stored in the diesel bowser.
- The diesel bowser shall be secured on ground level with (stand, stop blocks).
- Only the competent driver shall transport the diesel bowser to destination.
- All spilled oil will be treated/ cleaned as soon as possible.
- The Clients / Managing Contractors Environmental Control Co-ordinator must be informed of all activities that involve the use of hazardous substances to facilitate prompt response the event of a spill or release.
- The storage facility for chemical substances must be of sound construction, the door of substantial material must be kept locked, the key to which is to be under the control of the appointed co-ordinator.
- The contractor shall prevent unauthorised access into the fuel/ flammable liquid storage area.
- No smoking shall be allowed within the vicinity of the flammable liquid storage.
- The contractor shall ensure that there are adequate fire extinguishers at the flammable liquid storage.

4.1.7 Noise

- No loud music shall be allowed on site.
- The contractor shall provide suitable ear protectors such as ear plugs and ear muffs to all his employees and others entering areas with a high noise level.
- All equipment shall be fitted with effective exhausted silencers and shall comply with the SABS code 0103:1983, for construction plant noise generation.
- All vehicles shall be fitted with effective exhaust silencers and shall comply with the Road Traffic Act (Act No.93 of 1996) when such vehicle is operated on a public road.

4.1.8 Water Management

- The contractor shall ensure that his employees shall be provided with adequate water.
- The contractor shall ensure that no contaminated water shall enter the natural environment.

4.1.9 Access

• Only designated access roads shall be used to access the working area.

4.1.10 Dust

- Limit vehicle speeds on roads within the construction area, always keep to the speed limit (40 km/h).
- The contractor shall apply water to gravel/ dust roads with a water tanker (at least fifty per cent of transport related dust could be eliminated by carefully watering the roads).

5. PROCEDURE

The contractor shall ensure that if there is any incident on site affecting the environment, irrespective of whether it's the result of non-compliance or not, the following steps should be implemented:

- All environmental incidents must be reported to the Environmental Officer, Supervisors and the Client immediately.
- Depending on the severity of the incident, the Environmental Officer shall notify the client, the relevant authorities, the EMC and the Emergency services (if is necessary), regarding the incident.
- Although all incidents must be recorded in the site reporting.
- All issues of non-compliance must be reflected in the environmental reporting (including daily and weekly checklists)
- An incident report must be completed for all environmental incidents.
- Environmental Incident reports must address the following aspects:
- Description/ area of the incident
- There must be supporting documentation, i.e providing evidence e.g. a flash report/ photograph of the incidents and the cause of the incident
- Provide dates and signatures of both the EO and the Engineer at issuing of the report, as well as completion and verification of the remedial action as specified.

6. ENVIRONMENTAL INDUCTION

- All employees employed by IGANO Group shall within 14 days of employment receive Environmental Awareness and Training.
- Basic Environmental Awareness Training included in IGANO Group induction program are Hazardous Substances Training, Fauna and Flora, Heritage, Dust, Noise, Waste Management procedure and Emergency preparednes training.
- The contractor shall provide proof of attendance by all of his employees in the form of a signed attendance register for each session.
- The contractor shall erect and maintain information posters for the information of his employees.

7. PROTECTION OF FAUNA AND FLORA

- The Contractor shall protect fauna living within the Site and shall ensure that trapping, poisoning, shooting and/ or other hunting of animals is strictly prohibited, including the collection of any domestic or wild animal.
- The Contractor shall ensure that no domestic animals are permitted on Site, and the keeping of pets by the Site staff shall be strictly prohibited.
- The Contractor shall ensure that the Working Area is kept clean, tidy and free of rubbish that would attract animal pest species.
- The Contractor's employees shall be prohibited from collecting firewood from the surrounding areas, and this shall be supplied by the Contractor from a legitimate supplier.

APPROVAL OF EMP:

Project Manager	
(Name)	Date
(Sign)	
Client Representative	
(Name)	Date
(Sign)	
Safety Officer	
(Name)	Date
(Sign)	
Environmental Officer	
(Name)	Date
(Sign)	