

Mini Environmental Specification – Installation of 570kVAr Reactor & RMU (Losberg)

1. PURPOSE AND SCOPE

This Mini Environmental Specification forms part of the Contract and is mandatory for all activities associated with the supply, delivery, installation, testing and commissioning of the 570kVAr Reactor, Ring Main Unit (RMU), MV/LV cabling, earthing, civil plinth works, fencing and associated electrical infrastructure at SARAO Losberg.

This specification sets out the minimum environmental requirements for the Contractor during the two-month execution of works, including:

- Installation of 570kVAr Reactor and surge arrestors
- Supply and installation of RMU
- Excavation, trenching, and cable laying
- Construction of RMU and reactor plinths
- MV/LV terminations, joints, earthing system installation
- Installation of cable supports, palisade fencing, aggregate stone bedding
- Testing, commissioning, FAT inspection, and final handover
- Any modifications or assessment of existing infrastructure

2. LEGAL & POLICY COMPLIANCE

The Contractor shall comply with the following Environmental regulations:

- **NEMA** & Environmental Impact Regulations
- **NEM:WA** (Waste Act) & **NEM:AQA** (Air Quality Act)
- Health & Safety Act
- SARAQ Environmental Management Requirements
- Municipal bylaws and national standards for electrical installations

Failure to comply may result in suspension of work and penalties.

3. ENVIRONMENTAL ROLES & RESPONSIBILITIES

Contractor

- Implement this specification and the project-specific EMP
- Ensure that all staff and subcontractors undergo environmental induction
- Provide resources for environmental controls (spill kits, waste skips, barriers, PPE)
- Submit required method statements for approval

Contractor's Environmental Officer (EO)

- Conduct weekly inspections and maintain records
- Submit weekly and monthly environmental compliance reports
- Oversee environmental controls during excavation, concrete works, cable installation and reinstatement

SARAQ Environmental Officer

- Conduct environmental audits

- Approve method statements
- Issue Corrective Action Requests (CARs) where non-compliance is observed

4. PRE-START REQUIREMENTS

Upon award of this tender, or before site establishment, the contractor will need to submit an Environmental file which will consider the following requirements:

- a) **Baseline Environmental Survey** including photographs of sensitive areas
- b) **Demarcation of no-go areas**, cable routes and laydown areas
- c) **Submission of Method Statements** including:
 - i. Cable pulling, handling & installation
 - ii. RMU FAT, transport & installation
 - iii. MV terminations & jointing
 - iv. Earthing installation
 - v. Excavation & backfilling
- d) **Environmental Induction** for all site personnel
- e) **Emergency Response Plan** including spill response arrangements

5. SITE ENVIRONMENTAL MANAGEMENT REQUIREMENTS

5.1 Excavation, Trenching & Backfilling

- Strip and stockpile topsoil separately for reinstatement
- Keep trenches barricaded with safety tape and danger signage
- Prevent contamination of soil through controlled refuelling
- Reinstatement trenches to original condition with leveled compaction

- Ensure no excavated materials remain on site

5.2 Concrete Works (Plinths & Foundations)

- Designated concrete washout area required
- No cement slurry, wastewater or concrete residue allowed on natural ground
- All waste concrete must be contained and removed from site

5.3 Cable Installation & Handling

- Cable pulling must follow approved method statement
- Protect cable trenches from stormwater ingress
- Dispose of cable cuttings and excess materials appropriately
- Ensure all MV/LV terminations and joints occur on drip trays

5.4 Waste Management

- Provide colour-coded bins/skips for general & hazardous waste
- All hazardous waste (oils, contaminated soil, used PPE) must be stored in sealed containers
- Waste disposal must be through licensed facilities (proof of disposal required)

5.5 Fuel & Chemical Management

- All fuel storage must be in bunded structures
- Drip trays mandatory during refueling and plant parking
- Spill kits must be available at all work areas

5.6 Dust & Noise

- Light water spraying for dust suppression
- Noisy activities only during working hours

5.7 Traffic & Access Control

- Approved traffic management plan required

- Vehicle movement must stay within designated corridors

5.8 Fencing & Aggregate Stone Installation

- Fencing installation to avoid disturbance to fauna
- Use certified aggregate stone—ensure no dumping or spreading outside defined boundaries

6. METHOD STATEMENTS REQUIRED

The following method statements must be submitted and approved before work begins:

- Reactor and RMU transportation & installation
- MV cable pulling, laying, and termination
- LV cabling and termination procedures
- MV jointing installation & testing
- Earthing system installation
- Excavation, trenching & backfilling
- Spill response procedures
- Waste management procedures

7. MONITORING, AUDITS & REPORTING

- **Daily EO inspections** (internal checklists)
- **Weekly EO reports** submitted to SARAEO EO
- **Monthly Compliance Report** required
- **Incident Reporting:**
 - Telephonic notification within **4 hours**
 - Written report within **24 hours**

8. NON-COMPLIANCE & PENALTIES

SARAO may issue corrective action requests (CARs). Continued non-compliance may lead to suspension of works or cost recovery for environmental damage.

9. SITE REHABILITATION & HANDOVER

Before project close-out All disturbed areas must be reinstated, waste removed, trenches backfilled, and a final environmental inspection conducted before issue of Rehabilitation Completion Certificate.

10. RFI COMPLIANCE

All equipment, cabling and installation methods must comply with SARAO RFI/EMI standards. RFI documentation must be submitted for review.