METHOD STATEMENT FOR

MAINTENANCE OF HV SWITCHGEAR, RMU, TRANSFORMERS, AND CAPACITOR BANK

FOR

Project No: (....)

REVISION HISTORY	ISSUE DATE	DESCRIPTION	REVIEW / STATUS

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HSE Documents

1.0. PURPOSE

The purpose of this method of statement is to outline the sequence of activities involved and to provide the necessary guidelines for the maintenance works done for the Capacitor Bank / Power factor correction equipment at [Project Name/Location Name Here]

2.0. SCOPE OF WORKS

2.1. Enclosure physical conditions checked by visual inspection.
2.2. Removal of dust and dirt.
2.3. Checking and confirming the settings for stage level operation.
2.4. Checking Wiring insulation and check no evidence of overheating and excessive contact erosion.
2.5. Verify all circuit breaker sizes and types correspond to drawings.
2.6. Check all lamp indication functionality and replacement.

3.0. REFERENCE DOCUMENTS

3.1. Contract Scope of Works.
3.2. Existing drawings if available.

4.0. RESPONSIBILITIES

Competent Engineer (PTW Person) (If-available): -

4.1. Receive the PTW from [HSE DOCUMENTS] Authorized Person and arrange required tools and materials.
4.2. Ensure the availability of PPE for all the Personnel's who involves in the work.
4.3. Toolbox talk to be conducted which must include the area of work; risk involved in the activity, safety measures to be taken care of, emergency procedures, etc.
4.4. Ensure the Required Drawings (If available), Materials, Man Power are available at the Site before starting the actual work.
4.5. Inform the site in charge before entering the site and also before starting the actual work.
4.6. While accessing the equipment if applicable firefighting system is to be kept in Manual mode.
4.7. Equipment must be clearly identified (matching with PTW & equipment's label).

4.8. Area of work must be barricaded/identified by warning Tapes, Danger notices, etc.
4.9. Supervision of the activities and controlling of all the persons working under him.
4.10. Ensuring that the activities, areas of work, restrictions etc. mentioned in PTW Safety documents are strictly followed.
4.11. Supervising the Works until removing all persons, tools & and tackles from the work location.
4.12. While exiting the site, change the firefighting system back to be in Auto mode if applicable.
4.13. Before leaving the site inform the Authorized Person and site in charge directly/over phone and confirm the leaving time.
4.14. The above-mentioned points from 4.2 to 4.13 to be followed each day works until work completion.
4.15. After completion of all the works, inform to Authorized Person for Inspections and getting clearance.
4.16. Returning of the PTW Safety document after the works Successful Completion.

5.0. TOOLS AND EQUIPMENTS

5.1. All kinds of Tool Box with insulated tools
5.2. Erection tools & materials as required
5.3. Megger
5.4. Multimeter
5.5. Required materials.

6.0. METHOD STATEMENT/ WORK METHODOLOGY:

Procedure to carry out the Works for Capacitor bank and Associated works:

6.1. Make the arrangements for Capacitor bank Shutdown and make sure there is no supply in live parts.
6.2. General cleaning: clean equipment and surrounding areas.
6.3. Visual Inspection: Check any damage in equipment, checking all the indications in lamp and meters are in working condition.
6.4. Checking the cable connections.

7.0. RECORDS

7.1 General Safety Precautions:

- Make sure work area is clean, all floor openings are closed & no imminent danger is available nearby e.g. open electrical panel, exposed live part, electrical cable, overhead work, or other construction activity.

- Provide barricades to the testing area & display warning signs for another person working nearby.

Protect or provide insulating cover to all energized parts & working:

7.1. Keep safe clearance for live part or installations.
7.2. Only authorized personals to be allowed in the barricaded area of work.
7.3. Provide proper working platform & access if required to work at height.
7.4. Use only electrically insulated tools (insulation voltage should be higher than working voltage).
7.5. Positive verification of correct circuit/ installation/ panel/ cable on which work to be carried out.
7.6. Sequence of method statement to be followed up.
7.7. Check safe trip function of testing instrument is working properly.
7.8. Ensure proper lead & clamps for the connecting wires.
7.9. In case of doubt, don't decide by self. Ask to authorize person from [HSE DOCUMENTS].
7.10. Discharge the residual charge after testing by short circuiting with earth. Use proper insulating stick to the discharge.
7.11. Auxiliary power supply for test should be from approved source of supply with ELCB protection. (If required)
7.12. Test should not be performed in dusty environment. If required provide Air conditioning during the test operation.

8.0. HSE REQUIREMENTS

8.1. All HSE activities related to the project shall be based on the Owner/Engineer's approved Project Specific HSE plan.
8.2. All PPE's shall be used during the execution of works.
8.3. Enclosed Risk Assessment with clear identification to potential HSE hazards & proposed control measures including the responsibility to implement the same.

9.0. EMERGENCY PROCEDURES

Emergency Procedures for Maintenance of HV Switchgear, RMU, Transformers, and Capacitor Bank.

9.1. Pre-Emergency Preparation:

- Ensure that all maintenance personnel are trained in emergency procedures and first aid.
- Conduct toolbox talks focusing on electrical hazards, arc flash risks, and appropriate responses.

- Display emergency contact numbers for electrical supervisors, safety officers, and first responders at the worksite.
- Establish a clear isolation and lockout/tagout (LOTO) procedure to de-energize equipment before maintenance.

9.2. Emergency Response Plan:

9.2.1. Electrical Shock or Arc Flash Incident:

- Immediately cut off power to the affected area using the nearest emergency stop button or isolation switch.
- Evacuate the injured person from the immediate danger zone, only if safe to do so.
- Administer first aid (CPR for electrical shock) while ensuring no risk of further exposure to live equipment.
- Contact emergency medical services (EMS) and report the incident to the site safety officer.

9.2.2. Fire Emergency:

- Use CO2 or dry chemical extinguishers designed for electrical fires to combat any flames.
- Activate the fire alarm system and evacuate all personnel to designated assembly points.
- Report the fire to local civil defense or fire services.

9.2.3. Gas Release or Explosion:

- Immediately evacuate the area and avoid inhaling gases, particularly sulfur hexafluoride (SF6) in switchgear.
- Seal the area to contain the leak and prevent further exposure.
- Notify the emergency response team and civil defense for immediate containment actions.

9.2.4. Evacuation Procedures:

- In the event of fire, explosion, or major equipment failure, trigger the alarm system and evacuate personnel to the assembly points, following marked escape routes.
- Designate a safe zone away from high-voltage areas for first responders and safety officers to assess the situation.

9.2.5. Reporting and Communication:

- Notify the site safety officer and HSE department immediately after any incident.
- Submit detailed reports on the emergency event in compliance with OSHAD standards and regulations.

- Conduct a post-incident review to determine causes and implement corrective actions to prevent recurrence.

9.2.6. Standards and Compliance:

- Comply with UAE OSHAD standards, particularly the Electrical Safety Code of Practice.
- Follow manufacturer guidelines for the maintenance and operation of HV switchgear, RMU, transformers, and capacitor banks.
- Ensure that personal protective equipment (PPE) such as arc-rated clothing and insulated gloves is worn at all times during maintenance activities.

Details	Prepared By	Verified By	Approved By
Signature & Date			
Name			