

# DALMIA CEMENT (B) LIMITED – CEMENT PLANT DALMIAPURAM



Issue No. 02 Rev. No: 01 Effective Date: 22.05.2015 SOP/Elect /12

Issued By: S & P Approved By: Elect. & Inst Head

### **SOP For Capacitor Panel Maintenance**

**Scope/Purpose**: This Procedure to establish and ensure safe method of Capacitor Panel Maintenance

**Responsibility** : Section Engineer – Electrical

**Accountability** : **Section** Head-Electrical

PPE:

1. Safety shoe,

2. Rubber Gloves

#### **Tools:**

1. Spanner Set.

- 2. Panel Key
- 3. Earth rod
- 4. Insulation tester.
- 5. Muiti Meter.

### **Hazard Analysis:**

Risks associated Mitigating Measures

Electrical shock Proper Isolation and Discharge of Stored energy.

Hazardous gas leakage Proper disposal to stores

### **Training needs:**

- 1. Maintenance of Capacitor bank.
- 2. Usage of tools and Instrument.
- 3. Usage of PPEs

#### **Procedure:**

- a) Get work permit from the concerned Electrical section in-charge.
- b) Isolate the incoming supply and Proceed LOTO.
- c) Open the Individual capacitor bank covers
- d) Discharge the stored energy in Capacitor terminals.



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- e) Clean the capacitor panel / capacitors.
- f) Clean the bus bars.
- g) Check the capacitors for buckling, Oil leakage, Terminal condition and any physical damage.
- h) Check the discharge resistors.
- i) Check the feeder switchgears and cable for any color change or abnormality.
- j) Check the IR Value of Capacitors with 500 V IR Tester, If found defective the same to be replaced with equivalent capacity.
- k) Remove the discharge rod and ensure all the cubicles and doors are closed.
- 1) Return the Work permit.

### **Emergency / Emergency Shut OFF:**

1. If any injury is there, and inform to the safety department523/9865177444 or call Emergency number 251 / 254 / 568 /9842994062.

### **Records/Annexure:**

- 1. Sub-stations register
- 2. JSA is enclosed below.



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### **JOB SAFETY ANALYSIS: (JSA)**

Job Safety Analysis	Job: Capacitor Panel Maintenance	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Supervisor	Department: Electrical	Section: Plant	Approved by:
Req'd/recommended PPE: Safety shoe & Rubber Gloves.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Capacitor checking	Electric shock	Proper discharge method	Un-discharged capacitors	Usage of Earth rods

HEAD E & I HEAD TECHNICAL