



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT  
ARIYALUR  
ELECTRICAL MANUAL**

Issue No:02	Rev. No: 00	Effective Date: 01.11.2019	SOP/ELE/026
Issued By: SE/SH		Approved By: HOD ELECTRICAL	
ISSUING LOTO OF ESP CHAMBER TRAFO			

**Scope :** For Issuing LOTO of ESP Chamber Transformers  
**Responsibility :** Electrical section Technician / Section Engineer  
**Accountability :** Electrical Section Engineer / Head

**PPE:**

1. Electrical Safety Gloves
2. Safety shoes
3. Safety helmet

**TOOLS:**

1. Spanner,
2. Fuse Remover/ Puller,
3. Discharging Rod.

**Hazard Analysis:**

**Risk associated:**

Flash Over of Panel

Effect of Shock

Effect of hand injury

**Mitigation Measures**

Use of Safety Harness

Tested Electrical Rubber Hand Gloves

Use proper size spanner

**Procedure:**

1. Take / Receive the LOTO Clearance from performing authority for ESP.
2. Ensure the ESP transformer is switched off from CCR.
3. Switch off the MCCB from MCC.
4. Remove the Pad locks "P1, P2, P3" from all 03 panels.
5. Insert the "P1, P2 & P3" padlocks at individual Transformer at ESP top.
6. Rotate the Transformer operating handle from "HV to Earth" Position. Ensure the locking at Earth position and remove the Pad Locks "E1, E2, E3".
7. Do the Visible Earthing of Transformer in the higher voltage side for all the 3 transformer.



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8. Insert the Removed "E1, E2, E3" padlocks at appropriate slot in "Safety Interlock Box" and remove the master pad lock "X".
9. Insert the master Key "X" at appropriate location & remove the individual padlock of Individual inspection doors.
10. Provide the Earth Discharge rod in "Emitting Electrode – Pipe type" from the entire Inspection Door.
11. Insert the appropriate Padlock of individual Inspection door and remove the Chain interlock.
12. Now it is safe to work / allow to work inside the ESP.

**Emergency Shut- off:**

1. In case of emergency, trip the particular MCC Feeder.
2. If any injuries are there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.

**Records/Annexure:**

1. Energy isolation permit
2. JSA



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**JOB SAFETY ANALYSIS:(JSA)**

<b>Job Safety Analysis</b>	Job: Issue of LC to ESP Chamber	Date:	Analysis by: SE	Reviewed by: SH
Title of employee doing job: Technician	Supervisor: Sec.Engr	Department: Electrical	Section: Cooler	Approved by: HOD
Reqd./recommended PPE: Tested Electrical Rubber Hand Gloves, Safety shoe, Safety helmet.				
<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Safe Job Procedure</b>	<b>What Could Go Wrong</b>	<b>Corrective Action</b>
Opening of Transformer HT side cover	Hand injury due to slip of tools	Use of hand glove	Fail to use / damaged hand glove	Improving the awareness through pep talk Condition based replacement of PPE
Earthing of Emitting electrode	Hand injury due to slip of tools	Use of hand glove	Fail to use / damaged hand glove	Improving the awareness through pep talk Condition based replacement of PPE
Earthing of Transformer	Electrocution	Usage of rubber hand glove	Fail to use / damaged hand glove	Improving the awareness through pep talk Condition based replacement of PPE