

DALMIA CEMENT (B) LIMITED – CEMENT PLANT ARIYALUR

ELECTRICAL MANUAL

Issue No:02 Rev. No: 00 Effective Date: 01.11.2019 SOP/ELE/027

Issued By: Approved By: HOD ELECTRICAL

LIFTING OF ESP CHAMBER LOTO

Scope : For Lifting LOTO of ESP Chamber Transformers

Responsibility : Electrical section Technician / Section Engineer

Accountability : Electrical Section Engineer / Head

PPE:

1. Safety Hand Gloves (Suitable Electrical Insulated glove)

- 2. Safety Helmet,
- 3. Safety Shoe,
- 4. Safety Hand Gloves.

TOOLS:

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

Hazard Analysis:

Risk associated: Mitigation Measures
Flash Over of Panel Use of Safety Harness

Effect of Shock Suitable Electrical Insulated glove

Effect of hand injury Use proper size spanner

Procedure:

- 1. Ensure / confirm the persons worked inside are come out of the ESP.
- 2. Remove the Padlock by properly making the chain interlock. Applicable for all Inspection doors.
- 3. Remove the Earth Rod from individual Inspection doors and close the door.
- 4. Remove the Earthing of Transformer HT side Earthing.
- 5. Provide the entire Inspection door Padlocks at "Safety Interlock box" and remove the master Key "X".
- 6. Insert the Master key "X" at appropriate location to remove the Transformer Keys "E1, E2, E3" from Safety Interlock box.



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- 7. Insert the Transformer Padlocks at appropriate Transformer slot and rotate the Handle from Earth to Live Position.
- 8. Ensure the handle position at HV side and remove the Pad locks "P1, P2, P3"
- 9. Insert the removed Padlocks "P1, P2, P3" at individual Transformer control Panel.
- 10. Switch "On" the individual panel SFU at ESP controller panel.
- 11. Switch On the SFU from MCC to charge the ESP control panel.
- 12. Confirm the healthiness of ESP status in CCR.
- 13. Lift the LOTO for Charging the ESP from CCR.

Emergency / Emergency Shut OFF:

If electrical shock injury or body injury is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.

Records/Annexure:

- 1. Refer LOTO certificates.
- **2.** JSA as enclosed below.



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Job Safety Analysis	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
Req'd/recommended PPE:				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
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