



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

Issue No:02	Rev. No: 00	Effective Date : 01.11.2019	SOP/Elect /64
Issued By:		Approved By: HOD - ELECTRICAL	
SOP For ELCB Testing (On line)			

Scope : Testing of ELCB at different locations.

Responsibility : Electricians

Accountability : Electrical Engineer

PPE:

1. Nose mask
2. Goggles
3. Cotton Gloves/LT rubber gloves
4. Safety shoes
5. Safety helmet
6. Full body harness with double lanyard as per the requirement

Tools:

1. ELCB tester with Probes
2. Suitable spanner
3. Insulated Cutting pliers
4. Insulated Screw Driver
5. Insulated Fiber Ladder

Hazards:

Risk Associated

Electrical Shock
Minor body injury
Fall from height

Mitigating Measures

Tested Electrical Rubber Hand Gloves
Safety shoes, gloves, helmet, goggles
Full body harness with double lanyard

Training needs:

1. Emergency preparedness
2. First aid training



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Procedure:

1. Get Work Permit for ELCB testing
2. Get ELCB check list & ELCB Tester from Section Engineer
3. Check ELCB battery condition
4. Clean the ALDB and APDB
5. Check terminal tightness of ELCB (IN/OUT)
6. Ensure the Probe connections in the ELCB tester
 - **Line-Red Color, Neutral-Black, Earth-Green**
7. Connect the probes (Red/Black/Green) to ELCB Outgoing Line, Neutral & Earth terminals.
8. Check N-E indication in the ELCB tester. Do not proceed the testing when the N-E indication lamp glows.
9. Ensure wiring healthiness in the tester by P-N & P-E indication lamp
10. Select the mA (30/100/300) setting in the ELCB tester
11. Once **"Test"** button is Depressed :
 - **Test starts immediately if Voltage is present**
 - **The test stops automatically when breaker trips**
 - **Test results are shown in the display**

Emergency / Emergency Shut OFF:

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

Records/Annexure:

1. JSA as enclosed below.



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JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: ELCB Testing(Online)	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section: Plant	Approved by:
Reqd./recommended PPE: Nose mask, Goggles, LT rubber Gloves, Safety shoes, Safety helmet, Full body harness with double lanyard.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Cleaning of ALDB/APDB	Irritation of eye	Wear goggles	Damaged goggles/non standard goggles/ Not wearing goggle	Periodic replacement / Proper training/ Follow SOP
	Inhalation of Dust	Wear Nose mask	Damaged nose mask/Not wearing Nose mask	Periodic replacement/ Proper training/ Follow SOP
Check terminal tightness ,During Testing & replacing of ELCB	Electric Shock	Use proper insulated tools/Hand Gloves	Nonstandard / Damaged tools	Training for tools handling/ Periodic replacement
	Body injury	Wear safety helmet, safety shoes , hand gloves,Safety belt	Tools and material may fall on human body/Falling from height	Without PPE don't perform the job