

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

## **ELECTRICAL MANUAL**

Issue No:02 Rev. No: 00 Effective Date: 01.11.2019 ELEC/SOP/006

Issued By: M.R Approved By: HOD - ELECTRICAL

**SOP for LT Panels Maintenance** 

**Scope** : Describing LT Panel maintenance procedure to Electricians

**Responsibility**: Electrical Engineer

**Accountability**: Section Head

#### PPE:

1. Nose mask

- 2. Goggles
- 3. Tested Electrical Rubber Hand Gloves
- 4. Cotton Gloves
- 5. Safety shoes
- 6. Safety helmet

#### Tools:

- 1. Wire brush
- 2. Hand Blower
- 3. Waste Cloth
- 4. Suitable spanner
- 5. Hammer
- 6. Insulated Screw driver

#### Hazards:

Risk Associated Electrical Shock Minor body injury Mitigating Measures
Tested Electrical Rubber Hand Gloves
Safety shoes, gloves, helmet, goggles

#### Training needs:

- 1. Electrical shock recovery Training
- 2. Emergency preparedness
- 3. Fire fighting
- 4. First aid training



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#### **Procedure:**

- 1. Take the LOTO for the particular Panel as per ELEC/SOP/003.
- 2. Clean the Panel with Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
- 3. Discharge the Panel terminals after opening Panel door.
- 4. Check the all Power and control cable connection tightness with proper tools.
- 5. If the Condition of the Contact Kits is not good, replace with new Contact Kits.
- 6. Open all the Power Contactors Arc Chute and Clean the Arc Chute, Fixed & Moving Contacts. while cleaning use PPEs like Nose mask, goggles and hand Gloves.
- 7. Check the Panel and Door earthing.
- 8. Close the Panel Door Properly with Panel Key.
- 9. Ensure closing of dummy cable entries.
- 10. Clear the LOTO as per ELEC/SOP/004.
- 11. Record all Check point in the concern Check list.

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

1. 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 Line clearance certificates.
- 2. JSA as enclosed below.



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

Job Safety Analysis	Job: LT panel maintenance	Date:	Analysis by: M.Ramesh Kumar	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section:	Approved by:

Reqd./recommended PPE: Nose mask, Goggles, Tested Electrical Rubber Hand Gloves, Cotton Gloves,

Safety shoes, Safety helmet

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Put on PPE, Take Permit				
Cleaning of Panels	Eye irritation,	Wear goggles	Damaged goggles / non standard goggles / Not wearing Goggle.	Periodic replacement / Proper training
	Respiration problem	Wear Nose mask	Damaged nose mask/ Not wearing Nose mask	Periodic replacement / Proper training
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Discharge the panel terminals by open the panel door, Check the tightness of Power and control terminals	Electrical shock	Use Tested Electrical Rubber Hand gloves	Damaged Gloves/ Not checked before use	Periodic replacement/ To check for Damage before use
	Body injury	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
		Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Check the Contactor kit, Open power contactor arc chute	Eye irritation,	Wear goggles	Damaged goggles/non standard goggles/ Not wearing Goggle.	Periodic replacement/ Proper training
Clean arc chute and fixed and moving contact	Respiration problem	Wear Nose mask	Damaged nose mask/ Not wearing Nose mask	Periodic replacement / Proper training
	Body injury	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
		Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Check the Panel Door earthing, close the door	Use proper tools	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic



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properly. Clear permit			replacement
	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job