

DALMIA CEMENT (B) LIMITED – CEMENT PLANT ARIYALUR



ELECTRICAL MANUAL

Issue No. 01 Rev. No: 01 Effective Date: 07.07.2017 SOP/ELE/033

Issued By: Approved By: HOD - ELECTRICAL

MAINTENANCE OF POWER CONTACTOR

Scope : Maintenance of Power Contactor

Responsibility: Electrical section Technician / Section Engineer

Accountability: Electrical Section Engineer / Head

PPE:

1. Tested Electrical Rubber Hand Gloves

2. Safety Helmet,

- 3. Safety Shoe,
- 4. Cotton Gloves.
- 5. Nose mask

TOOLS:

- 1. Screw Driver
- 2. Hand Blower
- 3. Fuse Remover/ Puller
- 4. Waste Cloth

Hazard Analysis:

Risk associated: Mitigation Measures

Flash Over of Panel Tested electrical rubber hand glove

Effect of Shock Use of goggles

Dust inhalinataion

Procedure:

- 1. Take the LOTO for the required Feeder.
- 2. Switch OFF main and aux power supply then rack out the feeder.
- 3. Check the tightness of Power and Control cable connection of feeder.
- 4. Remove the power cable from contactor properly.
- 5. Clean the Feeder with Brush/Hand Blower & Cloth.
- 6. Open the contactor and all arc chutes and kits.



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- 7. Clean all arc chutes & kit with CRC, cloth.
- 8. Ensure that all contacts/arc chutes are good if anything found in poor condition, then replace it with new one.
- 9. Then assemble the contactor properly & ensure that all contact Kits / Arc chutes are fixed back as before.
- 10. Check and Clean the coil & core.
- 11. Measure the coil resistance and check the operation of coil then close.
- 12. Restore all the contactor power / control connections back in position.
- 13. Check the feeder is properly inserted.
- 14. Lift the LOTO and Check the feeder working condition & inform to CCR operator.

Emergency / Emergency Shut OFF:

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

Records/Annexure:

ISA - as enclosed below.



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JOB SAFETY ANALYSIS: (JSA)

Job Safety Analysis	Job: Power contactor Maintenance	Date:	Analysis by:	Reviewed by:				
Title of employee doing job: Technician	Supervisor: Sec.Engr	Department: Electrical	Section: Plant	Approved by:				
Reqd./recommended PPE: Tested electrical rubber hand gloves, Helmet, Safety shoes, cotton glove, Nose mask								
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action				
Isolation of feeder/control supply	Electrocution/electrical Fire	Use hand glove	Fail to use of PPE	Educating importance of PPE through pep talk				
	Hand injury due to slip of tools	Use proper tool	Fail to Carry the proper tool	Periodical inspection of tools				
Removal of module / contactor connections	Hand injury due to slip of tools	Use proper tool	Fail to Carry the proper tool	Periodical inspection of tools				
Cleaning of fixed / moving kits with CRC	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				
Assembling and fixing back	Hand injury due to slip of tools	Use proper tool	Fail to Carry the proper tool	Periodical inspection of tools				