



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



Issue No. 01	Rev. No: 03	Effective Date: 07.07.2017	ELEC/SOP/001
Issued By: M.R		Approved By: HOD - ELECTRICAL	
SOP for issuing LOTO Permit in HT Feeders			

SCOPE : Isolating the equipments from the HT Electrical source

Responsibility : Electrical Engineer/Electrical Shift Engineer/Technicians

Accountability : Section In charge

PPE:

1. Electrical Safety HT Gloves
2. Safety Shoes
3. Safety helmet

Tools:

1. Racking Handle
2. LOTO Lock
3. Earth Truck
4. Rescue Rod

Hazards:

Risk Associated

Electrical Shock
Burn injury
Electrocution (Fatal)
Electrical Flash
Electrical Fire

Mitigating Measures

Required PPEs
Proper Trainings

Training needs:

1. Electrical shock recovery Training
2. Emergency preparedness
3. Fire fighting
4. First aid including CPR training
5. Electrical safety training



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Procedure for other than Electrical work

1. For Electrical Isolation Performing Authority who want to electrical isolation, duly filled the LOTO form with full description of equipment no's, isolation points, type of isolation etc.
2. The Performer has to get the approval from the Issuing authority /concerned section head (Mech).
3. The Performer who requires the Electrical Isolation shall approach electrical shift engineer/ electrical engineer with duly filled and authorized LOTO with Lock and Tag.
4. Electrical Engineer / Shift Engineer (authorized isolator) will verify the LOTO form, Date, Time, Equipment Description & other data with Name & Signature of performer.
5. Electrical Shift Engineer / Electrician Ensure that the feeder is in off condition. If it ON inform to performing authority as per procedure.
6. Electrical Shift Engineer / Electrician will switch off the control MCBs of the particular feeder.
7. Electrical Shift Engineer / Electrician will rack out the breaker of the Particular feeder by wearing HT hand gloves.
8. The performer shall ensure that the breaker is racked out and then locks out the feeder with his lock and displays DO NOT OPERATE TAG with his name and signature.
9. Isolating authority also lockout the feeders with his lock and provide his tags with performing authority name, his name and signature.
10. Authorized Isolator dully filled LOTO part "C" with their Name & Signature.
11. Now the Performer once again approach the Issuing authority /concerned section head (Mech).
12. Issuing authority shall authorize the isolation permit after confirming the all isolation.



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**Procedure for Electrical work at HT Motor Terminals, HT Panel Bus bar,
Transformer Terminals, HT Capacitor & HT Isolator**

1. For Electrical Isolation Performing Authority who want to electrical isolation, duly filled the LOTO form with full description of equipment no's, isolation points, type of isolation etc.
2. The Performer has to get the approval from the Issuing authority /concerned section head (Mech).
3. The Performer who requires the Electrical Isolation shall approach electrical shift engineer with duly filled and authorized LOTO with Lock and Tag.
4. Shift Engineer (authorized isolator) will verify the LOTO form, Date, Time, Equipment Description & other data with Name & Signature of performer.
5. Electrical Shift Engineer / Electrician Ensure that the feeder is in off condition. If it ON inform to performing authority as per procedure.
6. Electrical Shift Engineer / Electrician will switch off the control MCBs of the particular feeder.
7. Electrical Shift Engineer / Electrician will rack out the breaker of the Particular feeder by HT hand gloves.
8. Electrical Shift Engineer / Electrician will insert the Bus bar Earth truck in case of Isolation done in Incomer for Maintenance of HT panel board (MRSS located at CMBH LC, CMBH, RMBH & CCR HT Boards).
9. The performer shall ensure that the Earth truck is inserted and discharged through earthing. Then displays DO NOT OPERATE TAG with his name and signature.
10. Isolating authority also provide his tags with performing authority name, his name and signature.
11. Electrical Shift Engineer / Electrician will Rack in the cable Earth truck for particular feeder. (ALL HT motors, Transformers, HT capacitors and other Load center out goings).



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12. After Discharge the residual voltage, Electrical Shift Engineer / Electrician will Rack Out the cable Earth truck from outgoing feeder (ALL HT motors, Transformers, HT capacitors and other Load center out goings).
13. Electrical Shift Engineer / Electrician will insert the Breaker in test position for particular feeder.
14. The performer shall ensure that the breaker is in test position and then locks out the feeder with his lock and displays DO NOT OPERATE TAG with his name and signature.
15. Isolating authority also lockout the feeders with his lock and provide his tags with performing authority name, his name and signature.
16. Authorized Isolator dully filled LOTO part "C" with their Name & Signature.
17. Now the Performer once again approach the Issuing authority /concerned section head (Mech).
18. Issuing authority shall authorize the isolation permit after confirming the all isolation.

Emergency / Emergency Shut OFF:

1. If electrical shock injury or burn are 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: Isolating Electrical Power in HT feeders	Date:	Analysis by: Electrical Engineer	Reviewed by: Electrical Manager
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section: Electrical	Approved by: HOD Electrical
Reqd./recommended PPE: Rubber Hand Gloves, Safety shoes, Safety helmet, Arc flash suit				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Take Permit Put on PPE,				
Switch off the control MCB in particular feeder	Electric shock	Use Tested electrical rubber hand gloves	Damaged Gloves/ Not checked before use	Periodic replacement/ To check for Damage before use
Rack out the HT breaker	Body injury	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
Rack In and Rack Out Earth truck		Wear safety helmet, safety shoes , hand gloves, arc flash suit	Tools and material may fall on human body	Without PPE don't perform the job
Lock the feeder	Electrical shock	Use Tested Electrical rubber hand gloves	Damaged Gloves/ Not checked before use	Periodic replacement/ To check for Damage before use