



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



Issue No. 01	Rev. No: 01	Effective Date: 07.07.2017	SOP/ELE/034
Issued By: SH		Approved By: HOD- ELECTRICAL	
MAINTENANCE OF CIRCULAR SLIP RING			

<b>Scope</b>	: For Maintenance Circular Slipping
<b>Responsibility</b>	: Electrical section Technician / Section Engineer
<b>Accountability</b>	: Electrical Section Engineer / Head

**PPE:**

1. Tested Electrical Rubber Hand Gloves,
2. Safety Helmet,
3. Safety Shoe,
4. Safety Hand Gloves.
5. Nose mask

**TOOLS:**

1. Spanners,
2. Hand Blower,
3. Waste Cloth,
4. Screw Driver,
5. Motor Checker.

**Hazard Analysis:**

**Risk associated:**

Effect of Shock  
Effect of Eye Irritation  
Dust inhalation

**Mitigation Measures**

Tested Electrical Rubber Hand Gloves  
Use of Goggles  
Use of Nose mask

**Procedure:**

1. Take the LOTO for the circular stacker & Reclaimer with CCR Clearance.
2. Take LOTO for the Control supply from the instrumentation.
3. Open the Slipping door with Proper tool.
4. Blower the Slip ring with hand blower.
5. Check the Brush holder spring tension.
6. Check the cable tightness.
7. Ensure all carbon brushes are in their positions. If not correct it.
8. Ensure all tools are taken out from the slip ring chamber.



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9. Check the megger value between PH to Earth and Phase to phase.
10. Close the Slip ring door with proper tools.
11. Lift LOTO and check the brush alignment in running condition.

**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:**

1. LOTO permit
2. JSA as enclosed below.



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<b>Job Safety Analysis</b>	Job: Circular Slip ring Maintenance	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Technician	Supervisor: Sec.Engr	Department: Electrical	Section: Raw Material Handling	Approved by:
Reqd./recommended PPE: Safety shoe, Rubber Hand Gloves, Nose Mask, Goggle				
<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Safe Job Procedure</b>	<b>What Could Go Wrong</b>	<b>Corrective Action</b>
Isolation of feeder/control supply	Electrocution	Use Tested rubber hand gloves	Fail to use of PPE	Educating importance of PPE through pep talk
Measurement of IR value of outgoing cable.	Injury to head due to striking against some solid object	Follow permit procedure and SOP	Body may contact with charged conductor	Wear Hand gloves, Proper Probe Position
	Electrical shock	Use Tested Electrical Rubber Hand gloves	Damaged Gloves / Not checked before use	Periodic replacement/ To check for Damage before use
		Use Calibrated meters and good probe	Faulty meters / Defective probe	Meter shall be calibrated periodically / Check meter and probe condition before use.
Open and Cleaning of slip ring unit	Eye irritation of dust.	Wear goggles	Damaged goggles/non standard goggles/ Not wearing goggle	Periodic replacement / Proper training / Follow SOP
	Respiration problem of dust	Wear Nose mask	Damaged nose mask/Not wearing Nose mask	Periodic replacement/ Proper training/ Follow SOP
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job/ Proper training / Follow SOP
Checking of tightness of power cables	Hand injury due to slip of tool	Use proper tool	Failed to carry proper tool	Educating importance of tools through pep talk
Checking of carbon brush holder tension	Hand injury due to sudden release of spring	Use Hand Glove	Forgotten to wear hand glove	Educating importance of PPE through pep talk
Close the slip ring door, lift LOTO and take trial run	Hand injury due to slip of tool	Use proper tool	Failed to carry proper tool	Educating importance of tools through pep talk



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