# **Dalmia** BHARAT CEMENT

## **DALMIA CEMENT (B) LIMITED - DPM**



### **MECHANICAL SOP**

Issue No. 03 Rev. No: 00 Effective Date: 01.08.2016 SOP/MEC/

Issued By: M.R Approved By: HOD (MECH)

**SOP** for Kiln inlet tongue plate Changing

### Scope:

This SOP is applicable for Kiln tongue plate changing safely.

Responsibility : Section Engineer - Mech

Accountability : Section head - Mech

#### PPE:

1. Helmet,

- 2. Safety shoe,
- 3. Goggles
- 4. Gloves.
- 5. Nose mask
- 6. Apron-Heat protection

#### Tools:

- 1. Spanner set.
- 2. Hammer.
- 3. Torch light.
- 4. Gas cutting tools.
- 5. Welding tools.

#### **Hazards:**

#### Risks associated

#### **Mitigating Measures**

Body injury
Safe and tested tools and tackles

2. Leg injury 2. On job training

3. Hand injury 3. Properly empty out of stored material

4. Confined space stored material may fall

#### **Isolation matrix:**

- 1. Energy Isolation of Kiln main drive and Auxiliary drive.
- 2. Energy Isolation of All kiln feed group Kiln Feed Elevator, Kiln feed RAV, Preheater Fan.
- 3. Energy Isolation of Cooler Drives, All cooler fans, Clinker crusher.
- 4. Energy Isolation of Fuel/Coal Feed Group Coriolis System –Agitator Drive, Multicore, Multi Cell, PA Fan, Turbo Blower.



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5. Mechanical Isolation/Closing of Pneumatic Gates of Coal Bin Extraction system.

### **Procedure:**

- 1. Take proper work permit/Confined Space Entry Permit and Energy Isolation Permit as per work and safety standards.
- 2. Ensure confined space Oxygen level should be maintained as per safety standards.
- 3. Ensure 24volt supply light fittings for proper illumination inside the confined space area.
- 4. Ensure Energy Lockout, Tag out, Try out and mains switched off.
- 5. Ensure proper cooling of kiln shell temperature.
- 6. Ensure materials from feed pipes, cyclones stored materials are emptied out properly.
- 7. Ensure proper safety harness belt, Gloves, while going for kiln inlet tongue plate inspection.
- 8. Ensure proper welding machine and gas cutting machine safety.
- 9. Check tongue plate worn out/damage conditions as per OEM manual / instructions.
- 10. If necessary replace/Dismantle tongue plates as per OEM manual guidelines.
- 11. Install new tongue plates properly.
- 12. Ensure all checks on tongue plate replacement have done properly.
- 13. Clear the work permit, Energy isolation and inform to section Engineer/Section Head.

### **Emergency Shut- off:**

- 1. In case of parts are moving, Emergency switch should be activated by the person.
- 2. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 555/222/9865155288.

## **Records/Annexure:**

- 1. Refer Line clearance/permit in mech department.
- 2. JSA is enclosed below.



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

Job Safety Analysis	Job:	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Section Engineer	Supervisor: Section Head	Department: Mech	Section: PYRO	Approved by:

Req'd/ recommended PPE: Safety helmet, Safety shoe, Gloves, Goggles, Gloves& Nose mask

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Inspection of tongue plates inside kiln shell.	Fall of material From feed pipe, cyclone	Proper emptied out of stored material from feed pipes	Working person may slip and fall from kiln shell top	Ensure wearing PPE's safety harness belt for height work.
Replacing tongue plates	Hand/body injury	Proper Lifting tools to be ensured and trained personnel	While Lifting and fixing of plate hand /body injury may happen	Ensure proper tools and certified, training on job to be given