# **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 tire guide block crack welding and inspection

### Scope:

This SOP is applicable for Kiln tire guide block crack welding and inspection 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**

1. Body injury

1. Safe and tested tools and tackles

2. Leg injury

2. On job training

3. Hand injury

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

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### **Procedure:**

- 1. Take proper work permit and Energy Isolation Permit as per work and safety standards.
- 2. Ensure Energy Lockout, Tag out, Try out and mains switched off.
- 3. Ensure proper cooling of kiln shell temperature.
- 4. Ensure proper safety harness belt, Gloves, while going for kiln shell top chair plate inspection.
- 5. Ensure proper welding machine and gas cutting machine connections are given safely.
- 6. Check tire guide blocks and welding conditions, cracks if any as per OEM instructions.
- 7. If cracks appeared on guide block welding, prepare surface and re-weld properly.
- 8. Ensure welding standards as per OEM instructions have done.
- 9. Ensure all checks on tire guide block welding have done properly.
- 10. 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 tire guide blocks on top of kiln shell.	person may fall from height	Proper Job training to be given	Working person may slip and fall from kiln shell top	Ensure wearing PPE's safety harness belt for height work.
Welding of tire guide block crack	Electric shock, hand & body burn injury	Job training and wearing of PPE's	Person may get burn injury while welding	Ensure proper electric connections, PPE's for welding