



DALMIA CEMENT (B) LIMITED – ARIYALUR



MECHANICAL

| | | | |
|--|-------------|-----------------------------|-------------|
| Issue No. 01 | Rev. No: 00 | Effective Date: 01-09-2017 | SOP/MEC/140 |
| Issued By: M.R | | Approved By: HOD-Mechanical | |
| SOP FOR COAL CRUSHER SEGMENT REPLACEMENT | | | |

Scope : This SOP is applicable to Safe working for Coal crusher segment replacement.

Responsibility : Section Engineer – Mech

Accountability : Section Manager - Mech

PPE:

1. Safety Helmet,
2. Safety steel toe shoe,
3. Hand Gloves Cotton/Leather
4. Safety goggles.
5. Nose mask.

Tools:

1. 46 mm D- Spanner -2nos
2. Hammer
3. Wire brush

Hazards:

Risks associated

Body injury
Cut injury
Caught in-between

Mitigating Measures

Safe and health tools and tackles
Safe and health tools and tackles
Safe and health tools and tackles

1. Take the line clearance. Use LOTO system
2. The line clearance paper should be with the people who are working in the site.
3. Use PPE's while working
4. Take the shutdown of top and bottom belt conveyor
5. Open the top door.
6. Initial cleaning of crusher's rotor.



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7. Inspect and mark the worn out segment for replacement.
8. Both side inspection door has to be opened to hold the spanner for removing the segment
9. Loose the segment bolts.
10. Remove worn out segment.
11. Installed new segment with fastener.
12. Initial tighten all nuts
13. Close the side inspection door
14. Remove all tools and tackle.
15. Close the door and take the trial.

Emergency / Emergency Shut OFF:

If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 3108/9865152222

Records/Annexure:

1. JSA is enclosed below.
2. Isolation Matrix.

JOB SAFETY ANALYSIS :(JSA)

| | | | | |
|---|--|----------------------|---------------------------------|--------------------------------|
| Job Safety Analysis | Job: Secondary crusher segments changing | Date: 27 – 09 - 2017 | Analysis by Section Engineer | Reviewed by: Section Head |
| Title of employee doing job : Section engineer | Supervisor: Section Engineer | Department: Mech | Section: RMH | Approved by: HOD-Mechanical |



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Reqd./recommended PPE's : Safety Helmet, Safety shoe, Hand Gloves, Safety goggles. Nose mask.

| Sequence of Basic Job Steps | Potential Hazards | Recommended Safe Job Procedure | What Could Go Wrong | Corrective Action |
|-----------------------------|-------------------|--|---|---|
| Open the inspection door | Body injury | Use only proper spanners to avoid slip / shear of bolt and nut during un screwing. | Spanners may slip and hit hands while un screwing. Bolt may shear/cut due to load | Check the condition of the bolt / nut and spanners. |
| Remove the segment | Hand injury | Use good Tommy bar to shake the segments from its location. | Tommy bar may be in damaged condition | Check the condition of Tommy bar |
| Fixing the segment | Hand injury | Use good Tommy bars to match the segments. | Tommy bar may be in damaged condition | Check the condition of Tommy bar |
| Close the inspection door | Body injury | Use only proper spanners to avoid slip / shear of bolt and nut during screwing. | Spanners may slip and hit hands while screwing. Bolt may shear/cut due to load | Check the condition of the bolt / nut and spanners |

| SL No | Activity | Isolation Type | | | | | | | |
|-------|-------------------------------|----------------------------|-------------------------------|--------------------------|--|--------------|--|--|--|
| | | Electrical Energy | | | | Other Energy | | | |
| 1 | Coal crusher Segment changing | Tag /Name of the Equipment | Coal crusher - L11 CR 1 A & B | Belt conveyor - L11 BC 7 | | | | | |
| | | | | | | | | | |
| | | | Belt conveyor - L11 BC 4 | | | | | | |