



**DALMIA CEMENT (B) LIMITED – ARIYALUR  
MECHANICAL DEPARTMENT**

**Issue No. 02**

**Rev. No: 00**

**Effective Date: 01.11.2019**

**SOP/MECH/074**

**Issued By: M.R**

**Approved By: HOD MECHANICAL**

**BAGS REPLACEMENT WORK**

**SOP**

**Scope** : This SOP is applicable to Safe working for Bag filter - Bags Replacement Work

**Responsibility** : Section Engineer.

**Accountability** : Section Head – Mills

**PPE:**

1. Safety helmet,
2. Safety shoe,
3. Mask.
4. Cotton Knitted hand Gloves.
5. Ear Plug
6. Safety belt
7. Goggles

**Tools:**

1. Hammer
2. Knife
3. Spanner Set

**Hazards:**

**Risks associated**

Fine Dust

**Mitigating Measures**

Wear Goggle and Mask

**Training needs:**

1. Emergency preparedness
2. On job training

Line Clearance required for:

1. Mill drive
2. Classifier drive
3. Mill Fan
4. Booster fan

Isolation Required:

1. Compressed Air Line

**Procedure:**

1. Stop all the system and put emergency
2. Open the bag house top panel door and release the emergency



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3. Start the mill fan to reduce the temperature.
4. If there is no major replacement work
  - a. Cooling required for half an hour is enough
  - b. If major work is there make the cooling for one hour
5. Take all required Line clearance.
6. Take the work permit from the section Engineer

**If only bag replacement from the top panel**

7. Isolate the purging line
8. Allow the experienced work men for the job
9. Ensure the Proper PPE's adherence
10. Remove the Purging pipe in required location
11. Remove the damaged bags and cages
12. Replace with new bag and cage if required.

**If Bag filled with material**

13. Take shutdown for the Hopper Discharge RAL
14. Open the hopper door
15. Take Confined permit from Safety and process department.
16. Put 24v Lighting inside the hopper
17. Provide a watch person near the confined entry.
18. Allow the experienced work men for the job
19. Ensure the Proper PPE's adherence
20. Make the proper arrangement for climbing inside the hopper
21. Cut the material accumulated bags with proper knife
22. When bag got empty then remove from top side and ensure the person came out from the hopper
23. After completing the work inside the hopper close the door.
24. Return the Permit to section engineer.
25. After completing the bags replacement, put all purging line back and tighten properly.
26. Energize the Purging air line.
27. Check for air leakage
28. Close the top panel door.
29. Close the permits.



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**Emergency / Emergency Shut OFF:**

If any injury takes place, provide First aid and inform to the Safety department or Call  
Emergency number 3108/9865152222

**Records/Annexure:**

1. Refer Line clearance certificates.
2. JSA as enclosed below.

**JOB SAFETY ANALYSIS:(JSA)**

<b>Job Safety Analysis</b>	Job: Bags replacement	Date: 01 – 09 - 2014	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section Engineer	Supervisor: Section Head	Department: Mechanical	Section: Bag House and Bag filters	Approved by: HOD Mechanical
Req'd/recommended PPE: Helmet, Shoe, Nose mask, Cotton Gloves, Ear plug, Safety belt, Goggles				
<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>
Put on PPE	Dust inhalation	Wear Goggles, Nose Mask	Damaged goggle, Nose Mask	Periodic replacement, Watch person should ensure
Lightings	Electric Shock	Use only 24v lamps	Using 230 v lamps	Watcher should ensure the availability of 24v lamps
Isolation	Body Injury	Isolate the compressed air line	May isolate wrong line  Any other persons can open the isolated line	Should ensure with Site Engineer and Watch person.  Should provide a TAG – Men at Work
Top panel Door Opening	Leg and Hand Injury	Competent workmen should allow for the job	Door fall down	Proper communication should be there for workmen during removal
Removal of Purging Line	Body Injury	Use Proper tools and handle the pipe in perfect manner	Pipe may slip the person during the bag removal	Keep the pipe aside from the work place
Removal of Damaged Bags and Cages	Dust inhalation  Man fall	Wear Goggles and Nose Mask  Competent person should involve in job and should	Damaged PPE's  May wore Damaged belt	Ensure with Watch Person and Replace periodically Ensure the Watch availability Ensure with watch Person and Replace



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		wear safety belt	Safety Belt hook hanging provision may not available  Giddiness may occur	the belt periodically  Work should approve after Ensuring with site engineer and watch person whether the safety belt hooked properly  Allow experienced person only inside the hopper,  Single man should not enter inside the hopper.  A rope should be hanged with the workman and in emergency case the signal should pass to the watch person by means of rope
Installing new Bags and Cages	Hand Injury	Proper guidelines and competent workmen should allow for job	Person guiding the bags and cages may not listening the signal	Proper instruction and awareness should provide
Reassembling the Purging line	Body Injury	Use Proper tools and handle the pipe in perfect manner	Pipe may slip the person during the bag removal	Keep the pipe aside from the work place
Closing the door	Leg and Hand Injury	Competent workmen should allow for the job	Door fall down	Proper communication should be there for workmen during removal

S L N O	Activity	Isolation Matrix for Utility & General Equipment.									
		Isolation Type									
				<b>Electrical Energy</b>					<b>Other Energy</b>		
1	<b>BAGS REPLACEMENT</b>	Name and Tag for the Equipment	<b>BF fan</b>	<b>BF Damper</b>				<b>RAL top Manual Gate</b>			



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