

DALMIA CEMENT (B) LIMITED – ARIYALUR MECHANICAL DEPARTMENT



Rev. No: 02 Effective Date: 17.10.2017 SOP/MECH/074

Issued By: M.R Approved By: HOD MECHANICAL

BAGS REPLACEMENT WORK

SOP

Mitigating Measures

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 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)

Job Safety Analysis	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:	eq'd/recommended PPE: Helmet, Shoe, Nose mask, Cotton Gloves, Ear plug, Safety belt, Goggles								
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure							
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	Should ensure with Site Engineer and Watch person.					
			Any other persons can open the isolated line	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	Wear Goggles and Nose Mask	Damaged PPE's	Ensure with Watch Person and Replace periodically					
				Ensure the Watch availability					
	Man fall	Competent person should involve in job and should	May wore Damaged belt	Ensure with watch Person and Replace					



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		wear safety belt		the belt periodically
			Safety Belt hook hanging provision may not available	Work should approve after Ensuring with site engineer and watch person whether the safety belt hooked properly
			Giddiness may occur	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	Activity		Isolation Matrix for Utility & General Equipment. Isolation Type					
			Electrical Energy Other Energy			er Energy		
1	BAGS REPLACEME NT	Name and Tag for the Equipme nt	BF fan	BF Damper		RAL top Man ual Gate		



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