



MECHANICAL SOP

Issue No. 01	Rev. No: 00	Effective Date: 27.10.2017	SOP/MEC/204
Issued By: M.R		Approved By: HOD-Mechanical	

RABH THIMBLE REPLACEMENT.

Scope: To replace RABH Thimble

Responsibility: Engineer/SH

PPE:

1. Safety helmet
2. Safety shoe
3. Mask
4. Safety goggles
5. Gloves

TOOLS:

1. Screw driver
2. spanner set
3. 24v lamp
4. Crow bar
5. Nylon rope
6. Welding machine
7. Gas cutting set

Hazard Analysis:

Risks associated:

Excessive temperature

Dust emission

Burn Injury & suffocation

Mitigating Measures

Use Apron

control the inlet damper before entering

Use apron and proper welding shield

Procedure:

1. Isolate the chamber whose differential pressure was low, by closing inlet valve.
2. Close the reverse poppet & outlet poppet valve by mechanical isolation.
3. Open the chamber inspection/manhole doors at bottom side.
4. After ensuring cold condition of the chamber.
5. Give clearance for the working crew.
6. Thoroughly check for the damaged thimble.



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7. Don't allow the maintenance crew to carry sharp edged tools inside the chamber.
8. Use 24 volts lights for checking of damaged bags.
9. Locate the damaged bags by the presence of accumulated dust nearby.
10. Remove the bottom clamp and free from the damaged thimble.
11. Don't keep bags separately on the ground/Open area as the bags are sensitive rough surface/tools.
12. Bring and replace the damaged thimble.
13. First fit the bottom clamp in such away the double fold should cover the venture tight.
14. Top hook to be tightened with tensioning tool.
15. Applying pressure required is 3.0-3.5 bar.
16. Check the stitching portion of the bag come in line with adjacent the proper fixing of the bags at same height.
17. After replacing the damaged thimble, check the chamber thoroughly.
18. Close the man hole / inspection door after removing the all tools and persons.
19. Open the inlet, outlet & reverse poppet valves openings for putting the chamber to normal operation.
20. Intimate the CCR personnel.
21. Maximum two chambers can be attended at a time without hampering the normal operation of the reverse air bag house performance.

Emergency / Emergency Shut OFF:

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

Records/Annexure:

Refer LOTO standards/permit & JSA is enclosed below.



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JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: Replacement of Expansion joint	Date: 01 – 09 - 2014	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section engineer	Supervisor: Section Engineer	Department: Mechanical	Section: All Section	Approved by: HOD Mechanical
Reqd./recommended PPE's: Safety Helmet, Safety shoe, Hand Gloves, Safety goggles. Nose mask.				

Sl. No	Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What could go wrong	Corrective action
1	Close the inlet manual damper	Injury in hand	Use proper PPE	Injury by slip of chain	Allot trained workers to close the inlet damper
2	Closing the poppet valves	Release of pressurized air	Lock the poppet valve by mechanical stopper	Sudden release of poppet valves while working	Arrest the pneumatic valves
3	Open the chamber	Fall of door & injury	Use proper PPE & tools	Impact of door on workers while opening	Use crow bars for opening
4	Crew entry	Poor visibility	Ensure illumination more than 50 lux to ensure clear vision while working at night.	Less illumination- Strain for workers	Use 24V light
5	Locate the damaged thimble	Fall of material	Before starts of work (i.e. Climbing) ensure that there is loose materials in the chamber	Suffocation	Check for coating before entry



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6	During working chamber	Fall of material (bag)	Ensure that there is no simultaneous working is done below and ensure proper virtual barrication while bag is being lifted	Bag falling over worker	Tie the end of the bag with proper locking system in the top
7	Tensioning the bag	Leak of clamp	Ensure proper clamping	Hit of pressurized hose	Fasten the hose with the tensioning tool with proper clamps
8	Closing the doors	Fall of door & injury	Use proper PPE & tools	Impact of door on workers while closing	Use crow bars for opening
9	Release the air pressure & open the inlet & poppet valves	Hit of pressurized hose	Clamp the hose & release the air	Sudden release of air on workers	After fastening the hose release the hose slowly



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S L N o	Activity			Tag / Name of the Equipment	
				Isolation Type	
				Electrical Energy	Other Energy

RAW MILL BAG HOUSE BAGS REPLACEMENT	NAME AND TAG FOR THE EQUIPMENT	421FN1 RAW MILL BAG HOUSE FAN	361LD3 BY- PASS DUCT DAMPER IN CLOSED CONDITION	361FN3 RAW MILL FAN	POPPET DAMPERS COMPRESSOR COMMON AIR LINE VALVE TO BE CLOSED
		421FN2 REVERSE AIR FAN	BAG HOUSE BOTTOM ROTARY AIR LOCK		