



MECHANICAL SOP

Issue No. 01	Rev. No: 02	Effective Date: 17.10.2017	SOP/MEC/098
Issued By: M.R		Approved By: HOD Mechanical	
SOP FOR FLY ASH UNLOADING			

Scope: To Unload the FLYASH Bulker in to the Silo.

Responsibility: Attender

Accountability: Mechanical-Section Engineer

PPE:

1. Safety harness(Full body),
2. Safety helmet,
3. Safety shoe,
4. Mask,

TOOLS:

1. Box spanner
2. Ring spanner
3. Wheel chokes.
4. Tool Bag

Hazard Analysis:

Risks associated:	Mitigating Measures
Fall from height,	Use of safety harness
Movement of vehicle,	Use of Wheel chokes & Getting the Key.
Fall of tools;	Carry the tools in tool bags
Hose Bursting.	Usage of tagged Hoses

Procedure:

1. Park the Vehicle / Take out the Vehicle Key / Apply Wheel Chokers.
2. Tighten The top doors sealing and bolt tightness of the BULKER to avoid material spillage /Leakage FPR-Attendant
3. Use Safety belt for opening / checking / tightening the top doors of Bulker.
FPR-Attendant
4. Connect the Material hose (1) and air hose (2) through (cam lock) coupling with the BULKER.
5. Open the material valve (3).



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6. Start the compressor. Ensure the air pressure at "RECEIVER TANK" At 4.0bar
7. Ensure the Silo top Bag Filter fan and Rotary air locks are running (interlock with Compressor startup & Indication at Silo Bottom Floor).
8. Open the Air valve slowly.(4)
9. Pressure should not be more than 2.0 bar, at Pressure gauge(5)
10. Ensure Air passing through the material pipe, then open bulker material valve slowly.

(If found any Material leakage or Abnormal at BULKER, Close the air valve (4) and Release Tanker air pressure then arrest the leakages).

Ensure the BULKER is unloaded by checking the pressure drop<1.0bar at pressure gauge (5)

11. Stop the Compressor after unloading, close the air valve (4) and the material valve (3).

Emergency Shut- off: In case of Hose burst age / Pressure Relief valve opened, close the air valve (4)and release the tanker air pressure. Switch off the Air compressor.

All the valve numbers indicated at site for fool proofing.

Records/Annexure:

- Not the Unloading Time started / Completed / Name of the Transporter & Vehicle Number in the specified register.
- Any leakages at Bulker should not in remarks (check the register to improve the Quality of Bulkerts) Responsibility: Mech Section Engineer / Concern Commercial Person, Frequency once in week.



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Job Safety Analysis	Job: FLYASH unloading	Date: 1/09/2014	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Attendant	Supervisor: Section Engineer / Material handling	Department: Mechanical	Section: CVRM	Approved by: HOD-Mechanical

Req'd/recommended PPE:

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
1) Park the Vehicle / Take out the Vehicle Key / Apply Wheel Chokers	Vehicle may Move during people working.	Take out the Key / Apply Wheel Chokers.	Hand may injury during applying wheel chokers	Be conscious / alert during applying Wheel chokers.
2) Tighten The top doors sealing and bolt tightness of the BULKER.	Person may fall down	Double lanyard Safety Harness to be used properly before attending this job	Drivers may not knowing the Safety harness usage	Attendant should guide properly.
3) Unlading Thru compressed air.	Blockage may occur during Unloading & Tanker May Pressurize Dust fumes may spread all	Pressure Relief valve of the tanker will open.	PRV may failure	Additional PRV provided between Tanker & Compressed air Valve will



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4) Material unloading from the Tanker	around Bulker due to any abnormality in Tanker	Be alert at Tanker Air Vent Valve until system go smooth	Failure of tanker door gasket.	open Vent out the exiting pressure in the tanker thru air vent valve and then Compressor Air valve.
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Isolation Matrix: Not applicable