



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT  
ARIYALUR  
INSTRUMENTATION MANUAL**

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/INST/019
Issued By: M.R		Approved By: HOD - INSTRUMENTATION	
SOP for checking of OFF line particle size Analyzer			

**Scope:** Checking and Maintenance of Instrumentation Off line particle size analyzer.

**Responsibility:** Instrumentation technician.

**Accountability:** Instrumentation - Section Engineer.

**PPE:**

- Safety helmet
- Mask
- Goggles
- Hand gloves

**Tools required:**

- Multimeter
- Tester
- Screw Driver
- Hand Blower
- Ring spanner
- Lens Remover

**Hazard Analysis:**

Risks associated

Electrocution

Mitigating Measures

Use Insulated hand glove and Tools



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**Procedure:**

1. Get work permit and line clearance if required.
2. Use PPE.
3. Close the incoming compressor Air and vent the compressor from the valves by removing the outlet port.
4. Switch off the Isolator / MCB.
5. Isolate the control supply by switching off the MCB.
6. Check the incoming supply voltage at incomer by using multimeter.
7. Wait for 5 Minutes to allow the Laser beam to cutoff.
8. Clean the panel with Vacuum cleaner and keep the hand blower one meter away during electronic boards cleaning.
9. By using handle to remove lens unit from in between transmitter/ receiver and close with dummy.
10. From the lens unit remove the lens with proper remover and clean the lens with soft paper.
11. Using IPA and soft paper clean the lens.
12. Clean the vacuum line and air pressure line.
13. After the panel maintenance ensures the panel Screws and door locks are properly locked.
14. Switch on the Isolators / MCB and control supply MCB.
15. Open the compressor air line & check any leakage.



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16. Return the work permit after job completion.

17. Ensure the panel Healthiness and check the communication status in Robolab.

18. Give the clearance for the operation.

**Emergency / Emergency Shut OFF:**

1. If any unconsciousness is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.

**Records/Annexure:**

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



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**JOB SAFETY ANALYSIS: (JSA)**

<b>Job Safety Analysis</b>	Job: Off line particle size analyzer	Date: 20.09.2017	Analysis by: Section Head	Reviewed by: HOD
Title of employee doing job: INST - TECHNICIAN	Supervisor: Section Engineer	Department: Instrumentation	Section: Robo lab	Approved by: HOD INSTRUMENTATION
Req'd/recommended PPE: Safety helmet, Mask, goggles & insulated Gloves.				
<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>
1.CLOSE THE COMPRESSOR AIR LINE	POSSIBLE FINE RUST/DUST PARTICLES COME FROM HOSE LINE.	WEAR GOGGLES AND NECESSARY PPE	EYE IRRIGATION MAY BE OCCURRED.	FOLLOW THE LOTO PROCEDURE
2.ENSURE THE POWER SUPPLY SWITCHED OFF FOR THE OFF LINE PARTICLE SIZE ANALYZER	LASER BEAM MAY BE PASSED ON HUMAN BODY DURING CLEANING	CHECK THE POWER SUPPLY VOLTAGE BY MULTI METER	POSSIBLE FOR EYE IRRITATION	FOLLOW THE LOTO PROCEDURE
3.CLEAN THE ANALYZER	DUST WILL COME OUT FROM THE ANALYZER	USE PPE AND HAND GLOVES	COUGHING, EYE IRRITATION MAY OCCUR	USE GOGGLES ,NOSE MASK AND HAND GLOVES



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4.CLEANING OF MAIN AND AUXILIARY VACUUM PUMP FILTERS.	ELECTROCUTION	ENSURE THE FITNESS CERTIFICATION FOR PORTABLE INSTRUMENTS.	RESULTING ELECTROCUTION	CHECK THE INSTRUMENTS HEALTHINESS AND FITNESS CERTIFICATE VALIDITY
	DUST WILL COME OUT FROM THE VACUUM PUMPS.	USE PROPER PPE AND INSULATED HAND GLOVES	COUGHING, EYE IRRITATION MAY OCCUR	USE GOGGLES ,NOSE MASK AND HAND GLOVES