



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

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	INST/SOP/024
Issued By: M.R		Approved By: HOD - Instrumentation	
CHECKING OF DENSE PHASE SYSTEM AIR LIMIT SWITCH			

**Scope:** SOP for Checking of Dense phase system air limit switch.

**Responsibility:** Instrumentation technician.

**Accountability:** Instrumentation - Section Engineer.

**PPE:**

- Safety helmet
- Safety shoe
- Dust Mask
- Goggles
- Hand gloves

**Tools required:**

- Insulated tools
- Multimeter
- Screw driver

**Hazard Analysis:**

**Risks associated**

Electrocution

**Mitigating Measures**

Use of insulated hand gloves.



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### **1.0 Procedure for Checking of Dense Phase system Air limit switch**

- 1) Use proper PPEs.
- 2) Check the leakage in the seal air line pressure line tube.
- 3) If so close the incoming airline & change the tube.
- 4) Change the system in local mode by using Local/Auto switch.
- 5) Open the pressure switch cover & blower the inside terminals.
- 5) Check the air limit pressure switch contacts using multimeter with insulated probes.
- 6) In case any problem with pressure switch, close the incoming air line to the solenoid valve through manual valve.
- 7) Change the pressure switch
- 6) Operate the solenoid valve manually through the Solenoid valve knob.
- 7) Confirm the signal in CCR.
- 8) Change the solenoid valve in to Auto position.
- 9) Repeat Step No.7
- 10) Change system in Auto mode by using Local/Auto switch.
- 11) Give clearance to the CCR operator.

### **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.



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**Records/Annexure:**

1. JSA as enclosed below.

<b>Job Safety Analysis</b>	Job: Checking of Dense phase system Air Limit switch	Date:20.09.2017	Analysis by:	Reviewed by:
Title of employee doing job: Inst-Technician	Supervisor: Section Engineer	Department: Instrumentation	Section: RM/CM	Approved by:
<b>Req'd/recommended PPE:</b> Safety helmet, Safety Shoes, Goggles, Dust Mask, Hand 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.OPEN THE PRESSURE SWITCH COVER & BLOWER THE TERMINAL BLOCKS	DUST MAY COME OUT OF THE JUNCTION BOX & LIMIT SWITCHES	WEAR GOOGLES,HAND GLOVES & NOSE MASK BEFORE BLOWERING	COUGHING,EYE IRRITATION MAY OCCUR	USE GOOGLES, DUST MASK AND HAND GLOVES
2. INCASE ANY PROBLEM WITH THE PRESSURE SWITCH , MANUALLY CLOSE THE	SUDDEN PRESSURE MAY COME OUT OF THE TUBINGS.	ENSURE THE PRESSURE IS ZERO FROM THE INCOMING PRESSURE GUAGE	INJNURY MAY OCCUR	OPERATE THE SOLENOID VALVE MANUALLY TO RELEASE THE PRESSURE.



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INCOMING AIR LINE & CHANGE THE PRESS. SWITCH  3.CHECK THE PRESSURE SWITCHES BY USING MULTIMETER WITH INSULATED PROBES	LIVE SUPPLY IS EXPOSED AT THE MEASURING POINT THROUGH THE PROBE.	ENSURE THE PROBE IS PROPERLY INSULATED	RESULT IN FATAL	USE INSULATED HAND GLOVES
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