



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



Issue No. 01	Rev. No: 00	Effective Date: 25.05.2016	SOP/INST/17
Issued By: S & P		Approved By: HOD - INSTRUMENTATION	
SOP Calibration of Belt Weigher			

Scope: To Calibrate the belt weigher system.

Responsibility: Instrumentation technician.

Accountability: Instrumentation - Section Engineer.

PPE:

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

Tools required:

- Multimeter
- Tester
- Screw Driver

Hazard Analysis:

Risks associated	Mitigating Measures
Electrocution	Use Insulated Tools/ hand glove
Hand/Leg injury	Use Hand gloves and shoes



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Procedure:

1. Get work permit and line clearance if required.
2. Ensure Belt is standstill will not move with gravity
3. Use PPE and hand gloves while handling the calibration weight.
4. Ensure the signal interlocks and block the interlock if necessary.
5. Use the Multimeter with insulated probes for checking the signals.
6. Check all the load cell Earthing.
7. Clean the load cells and load cell junction Box with hand blower.
8. Check the load cell connections and tightness of the terminal blocks.
9. Check alignment of idlers.
10. Carryout tare/zeroing and ensure the zero reading at weighing controller and CCR.
11. Apply test weight and check the repeatability by removing and placing.
12. If found any deviation in repeatability, repeat the point no.8.
13. Place the known weight and check the actual and indicated weight. Do the span calibration if required in controller.
14. Retrieve the blocked signals interlocks.
15. Give the clearance for operation.

Emergency / Emergency Shut OFF:

1. If any unconsciousness is there, give First aid and inform to the Safety department or Call Emergency number 222/233/9865155288

Records/Annexure:

1. JSA as enclosed below.



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JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: Checking of Bin weighing system	Date: 25.05.2016	Analysis by: Section Incharge	Reviewed by: section Head
Title of employee doing job: INST - TECHNICIAN	Supervisor: SECTION ENGINEER	Department: INSTRUMENTATION	Section: RAWMILL, PYRO , CEMENT MILL & PACKING PLANT	Approved by: HOD INSTRUMENTATION
Req'd/recommended PPE: SAFETY HELMET, SAFETY SHOES, GOGGLES, DUST MASK, HAND GLOVES				
SEQUENCE OF BASIC JOB STEPS	POTENTIAL HAZARDS	RECOMMENDED SAFE JOB PROCEDURE	WHAT COULD GO WRONG	CORRECTIVE ACTION
1. CLEAN THE LOAD CELL & JUNCTION BOX WITH HAND BLOWER.	MAY COME OUT OF THE JUNCTION BOX DUST	WEAR GOOGLES,HAND GLOVES & NOSE MASK BEFORE BLOWERING	COUGHING,EYE IRRITATION MAY OCCUR	USE GOOGLES, DUST MASK AND HAND GLOVES
	ELECTROCUTION	ENSURE THE FITNESS CERTIFICATION FOR PORTABLE INSTRUMENTS	RESULTING ELECTROCUTION	CHECK THE INSTRUMENTS HEALTHINESS AND FITNESS CERTIFICATE VALIDITY
CHECK THE ALIGNMENT OF IDLER	FOR READJUSTMENT IDLER MAY FALL	SAFE DISTANCE OF FEET AND BODY LIMBS WHILE ADJUSTING THE ALIGNMENT	IDLER MAY FALL ON FOOT AND HAND MAY CAUSE INJURY	ENSURE TRAINED MECHANICAL FITTER FOR THE SKILLED JOB
BELT STANDSTILL	TRAPPING OF LIMBS IF BELT MOVES WITH GRAVITY PULLS	LOCK THE BELT FOR NON MOVEMENT AND ENSURE HOLD BACK OF GEAR BOX PROPER FROM MECH DEPT IF IT IS INCLINED BELT	MINOR OR MAJOR LIMB INJURY	DO NOT WORK INSIDE THE BELT ,MAINTAIN PROPER BODY ERGONOMICS TO KEEP AWAY FROM GRAVITY MOVING PART.