**[CALIBRATION OF PRESSURE GAUGES](D:\\d drive\\Paresh\\BF1 173 m3 After Relining\\WI & HIRA\\Temporary Internet Files\\Content.IE5\\M3  MASTER LIST WORK INST Inst..doc)**

**Objective**: To check accuracy of pressure gauge

**Scope:** This procedure is applicable for checking accuracy of pressure gauge.

**Reference:** Operating manual for Pressure Gauge.

**Standard used**:

1. Pressure calibrator: FLUKE 729-300G
2. Pressure calibrator: FLUKE 719PRO-30G

**Performance Criteria**: Accuracy of measurement of Pressure gauges as mentioned in MMTE

**Reference:** RISK /INST/17

**Aspect for the Activity** : Waste generation

**Identification of Hazards:**

**Physical:** Pressure (Compressed Air), Honeybee/snake bite, Noise

**Mechanical:** Trip & Fall

**Chemical:** CO Gas poisoning, Steam, Dust, Graphite

**Ergonomics:** Insufficient work practices

**Hazard due to Human Behavior/Human error:** Not adhering to WI/ PPE, Alcoholism, Use on non-certified tools/equipment.

## Responsibility: Sr. Engineer Instrumentation/Associate/Inst Technician

**Procedure:**

All engineers/technicians should follow this procedure whilst isolating and removing instrument for calibration, re-installation and commissioning. Care must be taken while removing and refixing to avoid contact with hot areas, gas & steam leakages.

**Caution** : Always isolate the Air line by closing the Ball/needle Valve while removing the pressure gauge. While Calibrating the Gauge the pressure should not exceed the 130% of Full scale Range.

1. Inform in to control room & take permission from process till the time job is to be carried out on instrument.
2. Close the isolation valve on process taping.
3. Remove the Pressure gauge & take it to lab if required, Clean the bottom Mounting fitting release the accumulated pressure, moisture, air bubble in case of steam line.
4. Now connect the pressure calibrator to pressure gauge and apply zero pressure,

Check zero indication on pressure gauge or adjust zero if required.

1. Increase the pressure in step of 25 % of span up to full range and note the corresponding ascending readings.
2. At 100 % of span reading should indicate Full Scale or adjust span if required.
3. In same way note down the descending readings by decreasing pressure in step of 25 % of full range up to zero.
4. Prepare the report as per calibration format in ascending & descending measurement and file the record.
5. Install the Pressure gauge and open the isolation valves on process tapings.
6. Give the Pressure gauge inline for measurement by opening the Isolation valves Inform to control room & take it inline.

**Amendement Record**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Manual Section Ref. & Para** | **Brief details of Revision** | **New Rev.** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Prepared By:**  Head Instrumentation PID1 | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Head – Electrical & Instrumentation PID1 |
| **Signature:** | **Signature:** | **Signature:** |
| **Review Date:** 13.09.2023 | **Review Date:** 13.09.2023 | **Review Date:** 13.09.2023 |
|  |  |  |