

	VEDANTA LIMITED – VALUE ADDED BUSINESS	Document No:	VL/IMS/PID1/INST/WI/08
	INTEGRATED MANAGEMENT SYSTEM	Revision Date:	05/01/2022
	Work Instructions for Calibration of Portable & Online Co Monitor and high alarm testing	Revision No:	07
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## CALIBRATION OF PORTABLE & ONLINE CO MONITOR AND CO HIGH ALARM TESTING

**Objective:** To check the accuracy of CO Monitors

**Scope:** This procedure is applicable for all Portable & Online CO monitors

### Reference

1. Standard CO gas cylinder.
2. Operation manual of Online CO Monitor & Portable CO monitor
3. **RISK/INST/17**

**Performance Criteria** : Accuracy of calibration of CO monitor (+/- 1ppm)

**Aspect for the Activity** : Waste generation, Gas leakage

### Identification of Hazards:

**Chemical:** CO Gas poisoning

**Physical:** Pressure, Fire

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

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

### Procedure:

All engineers and technicians shall follow this procedure whilst Calibrating CO monitor. Care should be taken to avoid excessive gas usage.

- 1) Make a calibration setup ready which include standard known value CO gas cylinder and regulator in clean air environment with proper vent line.
- 2) Switch on instrument and wait for three minutes then check the zero of CO Monitor. Calibrate the zero in case the deviation exceeds acceptance limits (+/- 1ppm)
- 3) If zero is ok, apply standard CO Gas with flow of 40 LPM and compare reading with standard CO.
- 4) In case deviation exceeds acceptance limits (+/- 1ppm), calibrate the Span.
- 5) File the Calibration record.
- 6) After calibration, Install the Online Co Monitor and test the Co high Alarm in PLC as per the approved alarm Setpoint List.

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