

Importance Of Maintenance

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9/15/26



Top CEMS Issues:

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- Plugged Probe Filters & Sample Ports
- Moisture Carryover ("Water Slip")
- Chronic Analyzer Calibration Drift
- Corrosion from Acidic Condensate
- Heated Umbilical & Sample Line Failures
- Contaminated Instrument Air Systems
- Broken or Sticking Solenoid Valves
- Analyzer Shelter HVAC Failure
- Sample Pump Wear and Diaphragm Failure
- System Leaks

What do all these have in common?



Maintenance.

All of these issues can be minimized or even removed with constant and proper maintenance.

Establish a Preventive Maintenance Schedule: Routine inspections and scheduled maintenance activities help identify wear before it results in failure. A preventative maintenance program should cover analyzer inspections, filter replacement, leak checks, calibration verification, flow system inspections, and instrument air system evaluations.

Maintain Critical Spare Parts: Waiting for replacement components during an outage can significantly extend downtime. Facilities should maintain an inventory of commonly replaced items including pumps, filters, O-rings and gaskets, solenoid valves, sensors, and analyzer consumables. Inventory decisions should account for component lead times, system criticality, and historical failure rates.

Perform Regular System Health Assessments: Periodic evaluations help identify aging equipment and developing reliability concerns before failures occur. A comprehensive assessment should review analyzer performance trends, calibration stability, maintenance history, data availability, and component lifecycle status.

Bad or no
maintenance
cause big issues.



Sample Maintenance Schedule

[illegible]

Recommended Daily & Weekly Checks:

Things to notate: Sample Vacuum, Sample pump vacuum, Process Flow, Sample Flow, Sample Bypass, Calibration Flow.

Depending on analyzer type: Rxcel value, Slopes, Flows & Pressures, Measure Detector, Reference Chamber Pressure, Coefficients, S/R Ratio, Bench Pressure.

Check Calibration Reports. Look for patterns in the results.

****The key is to know what these values mean****

Tech Training (Hardware & Analyzer)

Either onsite or at CiSCO. Training covers every aspect of the CEMS system from the sample probe to the drain.

Training also covers troubleshooting & general maintenance.

We also offer Monthly, Quarterly, Bi-annual & Annual maintenance services.

This could include CGAs and Linearities.

RATA Support

Tech Training

Question?

