USEPA Proposed CPMS Rule

An Industry Perspective

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CANTON MILL

Who?

- Any facility required to install a new CPMS, relocate or replace an existing CPMS under 40 CFR 60, 61, or 63

– with certain (but very few) exceptions.

What?

- Temperature, pressure, liquid or gas flow rate, pH & conductivity instruments used as indicators of control device or emission source operations must meet Performance Specification 17– (PS 17);

- You must rigorously maintain the instrument system per Procedure 4 – including instrument-specific QA/QC plan.

When?

- When you first install the CPMS;
- When you move or modify the CPMS;
- When you "replace the electronic signal modifier or conditioner, transmitter, external power supply, data acquisition system, data recording system, or any other mechanical or electrical component of your CPMS that affects the accuracy, range, or resolution of your CPMS"???
- Prior to submitting your title V renewal, comply with "basic requirements" of this performance specification"???
- NON Title V? - 5 years from promulgation.

Affected Instrument Loops

(40 CFR Parts 60, 61, or 63-affected)

Instrument Type	**No. affected instruments @ Canton Mill [subject to Part 60/63]**
Temperature	4
Pressure (differential pressure)	4
Liquid Flow Rate	9
Gas Flow Rate	1
Liquid Mass Flow Rate	0
Solid Mass Flow Rate	0
PH	2
Conductivity	0
TOTAL	20

Additional Instruments

- The language of the proposed rule is clear that the regulators could “spread” the applicability of this rule to anything that’s measured:
- *“The requirements…may also apply to stationary sources in a State, District, Reservation or Territory that adopts PS-17 or Procedure 4 in its implementation plan”*

Range Gotcha

- Assume: Majority of instrumentation in use in US industry meets accuracy specs – so you're comfortable with your instrumentation.
- Still need to evaluate instrument ranges (20% rule – 20% less than lowest expected, 20% higher than highest expected. Kiln temperature normally ~2400 degrees F – temperature instrument must be ranged to 2900 degrees F?? Does this make sense???).
- pH rule (pH resolution 0-14; the whole spectrum). Does this make sense??
- Be **AWARE** - if you re-range an instrument after while the rule is in effect, you've triggered PS-17 compliance!

“Deemed” NON-Compliant

- Air is a difficult medium to monitor;
- In a perfect world, instantaneous pollutant loading would be continuously measured;
- CPMS out-of-spec indicates operational delta – not necessarily an environmental issue;
- For CPMS, precision/repeatabilty probably more important than accuracy;
- Fearful of regulatory “creep” making process parameters into surrogate environmental compliance indicators.

Accuracy Audits (Procedure 4)

- Cost estimates based on no new installations required?
- Primary routine accuracy audit option is installation of redundant CPMS. – This is the ONLY option for magnetic flow tubes, which are common in pulp & paper industry (9 liquid flow CPMSs @ Canton Mill are magnetic flow tubes)
- Preamble: "If facilities elected to use redundant sensors, the estimated compliance costs….would be reduced."??
- One (1) flow tube installation estimated at $10,000.
- EPA needs to revisit cost estimates.

Procedure 4 Workload

- Evaluate & understand the rule.
- Write and implement the QA/QC plans.
- Implement the weekly pH calibrations, monthly visual inspections, monthly leak checks (pressure and flow rate) and Quarterly Accuracy Audits.
- Guestimated additional workload of

~1000 work hours/year

QA/QC Plan

- 40 CFR 63.8 [MACT general provisions] requires QA/QC plan upon promulgation of performance specifications.
- Per Procedure 4, QA/QC Plan includes:
  1. Accuracy Audit procedures;
  2. Calibration procedures;
  3. Preventative maintenance procedures;
  4. Data recording, calculations, and reporting procedures; and
  5. Corrective action for a malfunctioning CPMS.

Estimated Price Tag??

- A. $600/year-facility;
- B. $6000/year-facility;
- C. $60,000/year-facility; OR
- D. $600,000/year-facilty.

- EPA guesses A. Our internal estimates put just the QA/QC (P4) requirements at C. Big discrepancy.

What if?

- Cannot meet the installation requirements at site?
- “Certified” instrument reads differently than instrument originally tested/in place?
- Quarterly instrument check reveals “out-of-control” instrument? 40 CFR 60 Appendix F invalid back to last passing check.

wish list

1. Need certainty on applicability date;
2. Need relief from the range specifications;
3. Need to re-evaluate cost:benefit based on realistic cost estimates. A lot of work for unknown benefit. Instruments accurate now.
4. Need to back off on weekly pH calibrations and monthly leak checks for pressure instruments.
5. States/EPA need to back off of “deemed non-compliance” when CPMS report unusual data.

Part 64 – CAM Implications

- Not yet applicable to Canton Mill
- Other Title V facilities may have CAM currently written in – or in-process.
- Like MACT, CAM relies on instruments that were in-place.
- CPMS precision vs. CPMS accuracy.
- Proposed changes to CAM.

Questions or comments?