

Mercury Monitoring Services

Appendix K of D40 CFR Part 75 is titled "Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems." It addresses sorbent trap monitoring of vapor-phase mercury (Hg) emissions in combustion flue gas streams. We continuously sample, using in-stack sorbent media, coupled with analysis of the integrated samples. Our performance-based approach incorporates various sampling and analytical technologies, and maintains a specified and documented level of data quality through performance criteria.

The analyte measured is total vapor-phase Hg in the flue gas. That represents the sum of elemental HG and oxidized forms of Hg in mass concentration units of micrograms per dry standard cubic meter ($\mu\text{gm}/\text{dscm}$).

Known volumes of flue gas are extracted from the stack through paired, in-stack, pre-spiked sorbent media traps at an appropriate nominal flow rate. Collection of Hg on the sorbent media in the stack mitigates potential loss of Hg during transport through a probe/sample line. Paired train sampling is required to determine measurement precision and verify acceptability of the measured emissions data.

Montrose Air Quality Services provides a turnkey, comprehensive service to ensure mercury monitoring in compliance with Appendix K of Part 75, including:

- Presurvey testing
- Sampling equipment specification
- Sampling equipment purchase
- Sampling equipment set-up
- Sampling media
- Sample analysis
- Quarterly maintenance and services
- Reporting
- Complete training for your personnel

Montrose Air Quality Services can also help determine the proper spiking levels for 3 section traps and perform your annual Relative Accuracy Test Audits (RATA).

Ohio Lumex Sorbent Trap Specifications:

- Spiked/Not Spiked 3 section Sorbent Traps available in all sizes - 6 mm and 10 mm OD; 4 sections traps available for gas mercury specialization
- Iodinated, acid washed coconut shell charcoal. 150 mg and 1 g loading on small/large trap section
- Low mercury background levels - less than 2 ng per section
- Easy to remove and easy to set for leak check" cap plugs
- Unique sample high temperature ID ink with chain of custody sheet in protective pack
- Size "Calibrated" extra thick glass for trap rigidity
- Customized Spiking level for 3rd section - 50 to 200,000 ng loadings available
- Rigorous QA/QC procedures at every manufacturing step
- Long term storage stability - 1year
- Long sampling duration - up to 2 weeks
- High capacity mercury loading tested - up to 200,000 ng per section



Ohio Lumex Analyzer



Sampling System