

## **NEW CEMS APPLICATION NEWSLETTER FROM MONITORING SOLUTIONS!**

Monitoring Solutions is pleased to introduce our new quarterly Continuous Emissions Monitoring Systems (CEMS) newsletter. The CEMS Newsletter is devoted to helping engineers and users better understand CEMS.

Each issue will present a topic related to CEMS including operation, maintenance, troubleshooting, and diagnostics. The topics will relate to nearly every manufacturer's CEM system.

Other issues will be presented as appropriate such as: regulatory changes and/or requirements, product obsolescence, recalls or changes, new technologies and more. The format will be simple and straightforward with a goal to be useful to all who read it and own, operate, design, specify, or maintain a CEMS system.

## **HELP WITH DILUTION PROBE SERVICEABILITY**

This is a question that we asked very often:

***"...is there anything we can do about the weight and serviceability of our in-situ dilution probe?..."***

Many existing dilution probes typically utilize a 4" pipe extension

into the stack. This extension can be as much as 10' in length and very heavy. This weight and other design issues causes a variety of problems:

1. Handling a heavy probe a couple of hundred feet up on a stack becomes a safety issue. Typically it takes two strong people to remove and install it, and often times there's just enough room for one.
2. With positive stack pressures, problems associated with sealing the probe can occur creating downtime and added maintenance costs.
3. Depending on your stack design, orifices are commonly broken during disassembly and service resulting in costly replacement.
4. Probe heater replacement is also costly in the existing probe designs.

The answer to these problems is an upgrade to Monitoring Solutions' proprietary probe design. The first and major part of the upgrade is replacement of the 4" pipe with a 2" pipe. This has no effect on the performance of the probe but makes a remarkable difference with regard to serviceability.

1. The weight of the probe will be reduced considerably (close to 50% of original weight). This reduction in weight and size will allow easier and safer handling and in many cases make it more conducive to a typical trolley systems' clearance. Typical overall weight of a complete probe

assembly including a 4", 150 lb. mating flange is around 80 lbs. for a 10' overall length probe.

2. This lighter weight probe design does not have problems associated with leaks due to the several gaskets utilized under current configurations.
3. An upgraded heater design lowers replacement costs from the \$2,000-\$4,500 range to less than \$1,000.
4. The overall serviceability of the probe upgrade is much easier than current configurations. Depending on the stack gas environment, costly orifices may be getting broken during performance of quarterly service - this problem is also eliminated.

If you've been wrestling with your existing dilution probes' weight and have been experiencing the costly issues associated with replacement heaters, broken orifices and leaky seals, consider a probe upgrade to reduce these headaches. Complete replacement probes are also available in this configuration.

## CEMS NEWSLETTER

**"Devoted to helping engineers and users  
better understand CEMS"**

If there is someone else who should be, or would like to be on our CEMS Newsletter mailing list, please contact Jim Nowak at:

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### IN THIS ISSUE:

**Welcome to the CEMS Newsletter:** Monitoring Solutions is pleased to introduce our new quarterly Continuous Emissions Monitoring Systems (CEMS) newsletter...

**Help for Heavy Probes:** Here's a solution for those heavy dilution probes with leaky seals, expensive heaters and broken orifice problems...

### THE COMPLETE SOURCE FOR ALL YOUR CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) NEEDS.

- Both Dilution and Extraction type systems
- Oxygen Monitoring Systems
- Opacity Monitoring
- Ambient & Meteorological Monitoring
- Data Acquisition Systems (DAS)
- Process Monitoring Systems
- Complete Service and Support of all CEMS including:
  - ◆ RATA's ◆ Quarterly Preventative Maintenance ◆ Quarterly Audits ◆
  - ◆ Opacity Performance Audits ◆ Training ◆ Spare Parts ◆ Repairs ◆ Contracts ◆

