

# CEMS NEWSLETTER

Monitoring Solutions

Volume No. 1

Issue No. 10

April 2006

## REPLACING A CEMS ANALYZER

As more and more CEMS age, one of the most common upgrades is analyzer replacement. Just last year a leading supplier of CEMS analyzers discontinued support of all their older generation analyzers prompting the need for 100's of users to upgrade so as to maintain their systems' reliability and the ability to receive support and parts.

Replacing a CEMS analyzer as a whole is not a complicated task, but there are certain things to consider as you approach a project:

**Getting Started:** A good place to start is with your permitting agency. Each State and/or local agency varies, but many have submittal and approval requirements for installing new analyzers. Some require that you get permission, others don't. It's best to check with your representative to see how it's handled in your area.

**Ranges:** A manufacturer's like for like exchange of an analyzer is the simplest. Make sure the range of a replacement analyzer is the same as the one being replaced, and make sure you're quoted the proper range. Some manufacturer's charge more for high range analyzers for instance.

**Space:** Make sure that there is sufficient room in your cabinet or rack for the new analyzer. Again, sticking with the same manufacturer usually means the sizes are the same, but this is not always the case. There could be a significant amount of work required if everything

in a CEMS rack has to be moved even just a few inches.

**Plumbing Connections:** Typically the plumbing is simply a matter of unhooking the old connections and re-connecting them to the new analyzer. Make sure that sample flow requirements and/or pump requirements aren't changing and end up being more than your existing system can handle.

**Electrical and Signal Connections:** Again, disconnecting the old connections and reconnecting them to the new analyzer are all that's usually required. Make sure to verify your current output signal type. Some manufacturers offer a 0-10 VDC output as standard, and a 4-20mA output signal as an option.

**DAS Requirements:** Normally an analyzer replacement will be totally transparent to the DAS. If the signals and ranges match, no changes in the PLC or datalogger are typically required either. The only software change would be the model and serial numbers stored for use in reporting.

**Testing Requirements:** After a new analyzer is installed, it should be calibrated and a CGA or Linearity run on it. Most states will require a new RATA immediately to put the new analyzer into service as well. Many states have additional requirements for new analyzers to "prove" them before putting them into service. Check the rules of your permitting agency for your exact requirements.

**Spares:** Now that you have a new analyzer, don't forget to address your spare parts as you now have some

outdated inventory that needs to be replaced.

In a nutshell, remember the three F's (Form, Fit & Function) as these are very critical considerations and can save many laborious hours and added costs to your upgrade.

### Time to Upgrade your Existing CEMS Analyzers due to Age or Obsolescence?...

...please give Monitoring Solutions a call.

We supply name brand OEM analyzers for most manufacturers' CEMS.

Monitoring Solutions not only supply's analyzers, but can also assist with installation, start-up and calibration.

With every analyzer we sell, we offer complete training and 24/7 telephone support for the first year. And of course we support everything we sell with parts and in-house or on-site repairs if necessary.

Contact us today for budget pricing and/or quotes, and details on the newest replacement analyzers.

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

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or would like to be on our CEMS Newsletter mailing list,  
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