



CLEARING THE AIR

A row of gas cylinders are properly attached to a manifold and stored in the background. Cylinders of calibrated gases are available in various sizes. Photograph supplied courtesy of Airgas Inc.

An inside look at the EPA's new protocol gas verification program, and what it means for American industry.

By **BOB DAVIS**, Director of Utilities for Airgas Inc.

It is finally here, the highly anticipated solution to the EPA blind audits, the Protocol Gas Verification Program (PGVP). Although it has been widely discussed over the past three years, the official announcement was made in the *Federal Register* (Vol. 73, No. 16) in late January 2008. The PGVP flips the old protocol on its head, and in a good way. It puts more responsibility on the gas vendor, pushing EPA protocol gas manufacturers to a higher standard, which in turn will ensure that the end user receives a quality product that is in compliance with EPA regulations.

Why is it necessary?

For years, there have been arguments from all sides over which EPA protocol gas should be used from what company and why. The mandated blind audits that originated in the 1980s were the only way that users of EPA protocol gases could monitor gas vendors' quality.

Regulations require EPA protocol gas vendors to supply product that is at least ± 2 percent accurate from the tag value of the cylinder contents. Unfortunately, there was one substantial glitch in this program. Unless the user of the EPA protocol gas had a contract with

the National Institute of Standards and Technology (NIST) or an extremely sophisticated analytical laboratory available with NIST-traceable gases, it was impossible to confirm compliant accuracy on their own. This left the user potentially susceptible to fines and citations from the EPA if the calibration gas gave a false reading, which can be caused by understating emissions from the polluting source.

A new round of blind audits was mandated by the EPA in 2003, followed by an unofficial audit in 2006, in which only three companies participated. Both series had various degrees of problems and successes, which led the agency to reevaluate its existing auditing program and to find a more appealing solution. For the past several years, the agency has been working to develop a program that is superior in proving EPA protocol gas accuracy. Enter the PGVP.

What are the key changes?

There are two significant differences between the agency's former blind-audit protocol and the new PGVP. The first of these changes is that the EPA will require all gas vendors

Calibration gases are available in various size cylinders depending upon the user's needs. Photograph supplied courtesy of Airgas Inc.



How the program works:

- Gas manufacturers/vendors pay to participate in the PGVP.
- A third-party, independent company will pay a contractor to blindly purchase EPA protocol gases within a certain range from all the participants.
- EPA protocol gases are shipped to NIST in Gaithersburg, Md., where tag compare (certificate) values are compared against their analysis.
- Results are posted online and an email notification is sent to designated representatives of Part 75 facilities letting them know where to find the results.
- Every year, the results will be posted and will live on a web page that is managed by the Institute of Clean Air Companies and the EPA.

that wish to sell EPA protocol gases to formally participate in the PGVP. Gas manufacturers can elect not to enroll in this program. However, they will not be allowed to advertise, sell or distribute product using the term "EPA" when marketing protocol gases to their customers. This requirement is outlined in 40 CFR Part 58, Appendix A, Section 2.6.1, 40 CFR Parts 72 and 75, Appendix C, page 4,364 and will also be inserted into 40 CFR Part 75, Appendix A, Section 5.1.1.

To keep all parties apprised of vendor and site participation, the EPA is concurrently developing a website, set to launch in 2009, that will have a comprehensive listing of companies and manufacturing sites participating in the PGVP. Plants that are Part 75 facilities or

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that have Part 58 reporting requirements will need to enroll in the program to be included in this directory.

The other major change under the new program requires gas manufacturers to pay a participation fee at each site in order to become an eligible vendor and be included in the EPA online database. This shifts the cost of the blind audit away from taxpayers and instead gives it to the gas vendors. This fee can either be completely absorbed by the gas manufacturer or it can also open the door for gas vendors to pass the cost along to their customers.

In actuality, most gas vendors will probably pass the added cost along to the end user; however, it will be in the form of a manageable increase of less than \$3/per EPA protocol gas since the program is also maximized to cost each manufacturer approximately \$6,000 per site. If the cost is in fact filtered down, EPA protocol gas users can expect to see an increase in cylinder rentals or gas prices once the program is underway. However, they will also see that they have better gas and improved, accurate measurement of their emissions.



Calibration gases are used to make certain that sensors for stacks are measuring the exhaust gases properly, which can save millions of dollars each year. Photograph supplied courtesy of Airgas Inc.

It is important to note that vendors can participate in the PGVP without passing the audit. Therefore, facilities should consult the EPA database and monitor results coverage for all participating vendors. When the database is carefully used as a tool, facilities can effectively select manufacturers that can best suit their needs and that have a proven track record of compliance.

The big idea behind the PGVP is to show improvement of EPA protocol gas manufacturers, as well as to ensure continued product quality. PGVP participants that fail to pass can expect to be questioned by their customers about product quality and measuring accuracy. Those that continue to perform well may see an increase in their customer base. The bottom line is that slight differences in analytical accuracy can translate to huge dollars in potential lost emissions credits or fines. This program aims to give facilities the upper hand in selecting a gas manufacturer that helps them to make the grade. The EPA has invested the time and it seems to have gotten it right.

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Editor's Note: Currently, there is a lawsuit against EPA to stop the PGVP, however EPA is moving ahead with the program and expects some kind of program in January 2009.