Environmental Technology Verification Program

Advanced Monitoring Systems Pilot

What is the ETV Program?

The U.S. Environmental Protection Agency (EPA) has instituted the Environmental Technology Verification Program - or ETV - to verify the performance of innovative technical solutions to problems that threaten human health or the environment.

ETV was created to substantially accelerate the entrance of new environmental technologies into the domestic and international marketplace. It will supply technology buyers, innovation developers, consulting engineers, states, and EPA regions with high quality data on the performance of new technologies. This will allow more rapid protection of the environment with better and less expensive approaches. ETV verifies commercial-ready, private sector technologies through 12 pilots. These pilot programs draw on the expertise of partner organizations to design efficient processes for conducting tests of new technologies with EPA oversight.

This fact sheet describes the Advanced Monitoring Systems (AMS) pilot.

For further information about EPA's ETV program, visit the ETV web site at http://www.epa.gov/etv.

The EPA's partner in the Advanced Monitoring Systems (AMS) pilot is Battelle, a not-for-profit technology research and development organization with headquarters in Columbus, Ohio. The objective of the AMS pilot, which began in October 1997, is to verify the performance of commercially ready environmental monitoring technologies for air, water, and soil.

The AMS pilot has been developing verification test plans, conducting independent tests of technologies, preparing verification reports of test results, and developing verification statements for the technologies tested. Vendors of these technologies can use the verification reports and verification statements for marketing purposes. Regulators and users of the tested technologies can refer to the verification reports and statements to help them make purchasing decisions.

How the AMS Pilot Works

Assisting Battelle are air and water stakeholder committees whose members are drawn from diverse backgrounds, such as regulators, representatives of professional and trade associations, industry, academia, and investment companies. These stakeholders help Battelle define environmental monitoring needs; identify commercial technologies to meet those needs, prioritize technologies to be verified; develop test protocols and plans; and review test reports.

Vendors and manufacturers can also submit technologies directly to the AMS pilot for verification. Once a technology category has been prioritized for verification, a vendor meeting is held to help develop the test plan and select test locations. The test plan is drafted by Battelle and reviewed by participating vendors, stakeholder volunteers, and EPA representatives.

Battelle conducts the test and then drafts the verification reports and verification statements of test results, which are reviewed by the vendors, stakeholder volunteers, and EPA officials. After the verification reports and verification statements are approved, the statements are signed by the director of EPA's National Exposure Research Laboratory. The reports and statements are posted on the ETV web site and copies are provided to participating vendors.

Battelle
. . . Putting Technology To Work

The AMS pilot's technology verifications aid efforts to monitor and resolve air and water pollution problems throughout the nation.

Photos courtesy of the National Renewable Energy Laboratory

Technology vendors can use the verification statements and reports in their marketing efforts. Here, T.J. Medland of Peak Process Controls and Ken Cowen of Battelle (in the white shirt) install the Sigrist WTM-500 for the 1999 testing of on-line turbidimeters.

A Useful Marketing and Environmental Tool

Technology vendors across the nation are realizing the need for independent verification data. For example, in an ETV survey of vendors who had participated in verification tests, nearly all reported that verification was useful in marketing and that they would submit another technology for verification. Two vendors who participated in the AMS pilot's verification test for portable nitric oxide/nitrogen dioxide (NO/NO_2) emission analyzers were eager to receive the final verification reports and signed verification statements. They said customers were waiting to buy the instruments until they were verified by ETV.

By accelerating the rate at which new or advanced technologies enter the marketplace, ETV's verification testing is helping to improve the environment.

Categories of technologies that have undergone testing or are planned for testing by AMS include the portable NO/NO_2 emission analyzers mentioned above, on-line turbidimeters, ambient fine particulate monitors, optical open-path monitors, and portable drinking water analyzers. Vendors interested in having technologies verified under the ETV program should contact Battelle for further information (see box below).

Contacts

For additional information or to be added to the mailing list for the AMS monthly newsletter, *The Monitor*, please contact:

Helen Latham, Battelle
Phone: 614/424-4062; fax 424-5601
E-mail: lathamh@battelle.org

The U.S. EPA Pilot Manager is:

Robert G. Fuerst, 919/541-2220.

AMS web site: www.epa.gov/etv/07/07_main.htm

Potential Benefits of ETV

For technology developers and vendors:

- Increased credibility due to third-party testing, providing high-quality, consistent, and widely accepted data
- Access to expertise in developing, verifying, and applying environmental monitoring technologies
- Reduced verifications for the technology's acceptance by multiple states and localities
- Enhanced regulatory acceptance of environmental technologies
- A sound, science-based marketing tool
- Increased public recognition due to ETV's outreach efforts
- Increased markets and business opportunities
- Added confidence for investors, stockholders, lenders

For technology users and purchasers:

- Aid in evaluating competing environmental monitoring technologies
- Added assurance of credible performance data
- Assurance that the purchase is substantiated and supportable
- Increased availability of technologies that meet users' needs

For regulators:

- Confidence that the technology's performance has been verified by an independent third party
- Test data addressing realistic requirements but not limited to any single state's regulations
- Technological basis for streamlining the regulatory process and/or simplifying and revising regulations
- Access to resources for conducting verifications
- Increased ability to make informed decisions
- More rapid deployment of technologies to meet an agency's requirements

For everyone:

- Development of cost-effective and efficient solutions to environmental challenges
- Growth of environmental technology sector
- Increased competitive advantage for U.S. environmental technologies in the global marketplace.

11/1999