



**Homeland
Security**

Science and Technology

Highlight

U.S. Department of Homeland Security



System Assessment and Validation for Emergency Responders

The U.S. Department of Homeland Security (DHS) established the System Assessment and Validation for Emergency Responders (SAVER) Program to assist emergency responders making procurement decisions.

Located within the Science and Technology Directorate (S&T) of DHS, the SAVER Program conducts objective assessments and validations on commercial equipment and systems, and provides those results along with other relevant equipment information to the emergency responder community in an operationally useful form. SAVER provides information on equipment that falls within the categories listed in the DHS Authorized Equipment List (AEL). The SAVER Program mission includes:

- Conducting impartial, practitioner-relevant, operationally oriented assessments and validations of emergency response equipment; and
- Providing information, in the form of knowledge products, that enables decision-makers and responders to better select, procure, use, and maintain emergency response equipment.

Information provided by the SAVER Program will be shared nationally with the emergency responder community, providing a life- and cost-saving asset to DHS, as well as to Federal, state, and local responders.

The SAVER Program is supported by a network of technical agents who perform assessment and validation activities. Further, SAVER focuses primarily on two main questions for the emergency responder community: "What equipment is available?" and "How does it perform?"

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Handheld Photoionization Detectors

Handheld photoionization detectors (PIDs) are small, lightweight devices that can rapidly detect volatile organic compounds and other chemicals in parts-per-million and parts-per-billion concentration ranges. Emergency responders often mount handheld PIDs to remotely operated vehicles for plume mapping or collecting data prior to entering a spill area.

As a System Assessment and Validation for Emergency Responders (SAVER) Program Technical Agent, National Security Technologies LLC (NSTec), conducted a comparative assessment of handheld PIDs for the SAVER Program. Prior to the assessment, NSTec conducted a market survey in order to provide information on commercially available equipment and produced the *Handheld Photoionization Detectors Market Survey Report*. A focus group was also conducted to identify equipment selection criteria for the assessment, determine evaluation criteria, and recommend assessment scenarios. Results can be found in the *Handheld Photoionization Detectors Focus Group Report*.

All reports in the series, including the *Handheld Photoionization Detectors Assessment Report*, will be located in the SAVER section of the Responder Knowledge Base (RKB) website (<https://www.rkb.us/saver>) as they become available. Information on other technologies evaluated by the SAVER Program can also be found on the website.



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