Personal Cooling Systems

First responders operating in high temperature or stressful environments, especially when using protective clothing and equipment, become very susceptible to the effects of heat stress. Elevated body temperatures and heat stress can endanger mission performance and the responder’s health.

Personal cooling systems have been identified by emergency responders from federal, state, local, and tribal agencies as a critical tool to emergency response operations. With the responders needs in mind, the Center for Domestic Preparedness (CDP), as a SAVER Technical Agent, conducted a comparative field assessment on personal cooling systems.

Prior to the assessment, CDP convened a Responder Cooling System Evaluation Criteria Focus Group to recommend assessment criteria to be used for validating the effectiveness of equipment being tested by the Microclimate Cooling Team at the U.S. Army Natick Soldier (NATICK) Center. The focus group’s recommendations may be found in the Personal Cooling Systems Focus Group Report.

The CDP assessment was conducted to provide impartial and relevant responder evaluations of personal cooling system performance in realistic weapons of mass destruction scenarios. Assessment results may be found in the Personal Cooling Systems Assessment Report.

CDP also published the Personal Cooling Systems Analysis Report to enable decision makers and responders to better select, procure, use, and maintain emergency response equipment.

All reports in the series are located on the SAVER program Web site at https://www.rkb.us/SAVER, as well as reports on other technologies being assessed in the SAVER Program.