Performance Test and Evaluation

NUSTL NATIONAL URBAN SECURITY TECHNOLOGY LABORATORY

Homeland Security
Science and Technology

TESTING RADIOLOGICAL DETECTION EQUIPMENT

Radiation is an invisible, odorless, tasteless hazard that travels through walls and other materials. Yet, frontline personnel – from first responders to transit workers – are tasked with keeping themselves and the public safe from harm in the event of a radiation emergency. To achieve this, personnel routinely employ specialized detection equipment that enables them to interdict, detect, respond to and recover from radiological threats, such as radiation dispersal devices. Due to the nature of the threat, these personnel must have high confidence that this equipment will function reliably and as intended.

The Performance Test and Evaluation (PTEN) program at the U.S. Department of Homeland Security (DHS), Science and Technology Directorate's National Urban Security Technology Laboratory (NUSTL) makes sure the first responder community has working radiation detection equipment to detect and protect against radiological and nuclear threats. PTEN's functional testing verifies that first responders' equipment works as designed. First responders know that each unit has been independently tested, increasing confidence in their equipment.

PTEN tested and deployed over 2,000 pieces of radiological equipment worth over $1 million in fiscal year 2019 (FY19). This equipment included personal radiation detectors, backpack detectors, mobile detection units and isotope identifiers.

SECURING THE CITIES

NUSTL instated the PTEN program to fulfill an agreement with the New York City Police Department (NYPD) that required NUSTL to test all radiation detection equipment purchased through the DHS Countering Weapons of Mass Destruction Office (formerly the Domestic Nuclear Detection Office) Securing the Cities (STC) program. STC is a cooperative federal, state and local program that designs and implements architecture for coordinated and integrated detection and interdiction of illicit radiological materials that may be used as weapons.

PTEN expanded beyond STC to include testing equipment for other first responder agencies and equipment deployed within the New York City metropolitan area. In addition to testing and evaluation, PTEN also provides:

- Technical guidance and support to responders for radiological detection equipment.
- Warehousing and logistical expertise to facilitate equipment deployment.

INCREASING FIRST RESPONDER CONFIDENCE IN THEIR EQUIPMENT

First responder agencies use equipment that has passed NUSTL's quality checks to combat terrorist threats. NUSTL's PTEN partners include the Connecticut State Police, Fire Department of New York, New Jersey State Police, NYPD, Port Authority Police Department and Suffolk County Police Department. In FY19, NUSTL provided technical guidance to the New York Metropolitan Transit Authority on configuring radiation detection monitors deployed across their infrastructure and in advance of major public events in New York City.

LOOKING FORWARD

PTEN will continue to fill a critical capability need for the first responder community, helping to secure the homeland one radiation detector at a time.