



U.S. EPA HURRICANE RESPONSE 2017

PHILIS Suite of Mobile Labs

www.epa.gov/hurricane-response

EPA's Mobile Chemical Laboratory Asset for Remote or On-site Analysis for Natural Disasters, Accidental Releases, Terrorist and Other Incident Response Actions

Introduction

The Office of Emergency Management's Chemical, Biological, Radiological, Nuclear Consequence Management Advisory Team (CBRN CMAT) provides specialized expertise and cutting-edge response assets such as the Portable High-Throughput Integrated Laboratory



Identification System (PHILIS) mobile laboratories by increasing the Nation's capability and capacity to analyze organic chemicals including chemical warfare agent (CWA) contaminated environmental samples for soils, waters, surface wipes, and air matrices via mobile platforms.

PHILIS is a suite of mobile laboratories designed to identify and quantify Chemical Warfare Agents (CWAs) and Toxic Industrial Chemicals (TICs). The PHILIS units provide on-site laboratory capabilities to support to EPA's removal and remedial programs. The mobile labs are stationed in Edison, NJ & Castle Rock, CO to provide quick response times throughout the United States. Mobile and backup (fixed) assets can be used for CWA and CWA degradation analysis, volatile and semi-volatile organic compounds, BTEX, polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), explosives, and pesticides analysis.

PHILIS has been used by EPA Regions for many response and removal actions analyzing environmental samples for organic chemicals. It has been leveraged as a fixed laboratory and mobilized to superfund sites and deployments, such as the Papal visit, Republican National Convention, and hurricanes.

How it Works

The PHILIS labs, simply put, are just brick and mortar labs on wheels. Capable of detection limits down to health-based clearance levels, the labs are NELAP Accredited & CWA Certified. Road worthy within 4 hours of notification and set up and running within 6 hours of arrival on site, the labs are able to run 4 days before restocking and refueling is required. The units can operate via generator or shore power. Each unit arrives fully stocked (consumables, standards, etc.) and can resupply via courier. With automated sample prep equipment, the labs are able to process a minimum of 100 samples/day when fully staffed. Analytical results provided in client requested electronic data deliverable format (EDD) which is also Scribe compatible. The PHILIS units are linked via an encrypted wireless laboratory information system.

Quick delivery of chemical data to first responders is an important requirement of an emergency response. The onsite analysis PHILIS performs can be used for screening, eliminating shipping times of the samples allowing for quick field actions or for clearance allowing recovery to take place sooner.

The labs are available 24 hours a day, 7 days a week for emergency response. Any EPA on-scene coordinator can activate PHILIS through the Headquarters Emergency Operations Center with a simple phone call.