Overview of DOE Region 3 Emergency Response Assets

Christina T. Edwards
NNSA Office of Emergency Response (NA-42)
Regional Response Coordinator, DOE Region 3
803-952-6613
803-952-8525 (fax)
christina.edwards@nnsa.srs.gov
Radiological Assistance Program (RAP)

Mission: Provide first-responder radiological assistance to protect the health and safety of the general public and the environment. Assist other Federal, State, Tribal and local agencies in the detection, identification and analysis, and response to events involving the use of radiological/nuclear material. Provide training assistance to Federal, State, Tribal, and local agencies to enhance the overall national response capability to a nuclear/radiological event.
- Initial DOE/NNSA responders
- Deployable within 2 hours of team activation and arriving on-scene within 6 hours
- Regionally located to provide a timely response capability and foster relationships with other emergency response elements
Regional Contacts

DOE Region 2 (AR, KY, LA, MS, MO, TN, VA)
- Steve Johnson
  - (865) 576-9740 (Office)
  - (865) 576-1005 (24-hour)

DOE Region 3 (AL, FL, GA, NC, SC)
- Christina Edwards
  - (803) 952-6613 (Office)
  - (803) 725-3333 (24-hour)

DOE Region 4 (OK, TX)
- Kent Gray
  - (505) 845-6300 (Office)
  - (505) 845-4667 (24-hour)
Consequence Management (CM) Mission

- Radiological monitoring and environmental sampling using FRMAC methods
  ✓ Field Monitoring Team Support
- Contamination control expertise
  ✓ Hotline support
Data assessment and evaluation
Initiation and interpretation of NARAC predictive plots
Mitigative advice and consultation
Crisis Response Mission

- Gamma and neutron search, detection, and identification capabilities for lost, stolen, or malevolent uses of radiological/nuclear materials
  - Preventive Rad/Nuc Detection (PRND)
  - Rad/Nuc Search Operations (RNSO/TRNSO)
- Novice Searcher Training
RAP Teams

- Volunteer employees from the DOE/NNSA complex
- Each region has a minimum of 3 standard teams
- Each standard team consists of 8 members
- Teams can be augmented with other specialties (e.g., industrial hygienists, public information officers, transportation specialists)
RAP Team Training

- Radiation protection workers by profession w/specialized training in emergency response
- Standardized, formal training program
Response Equipment – CM
Response Equipment - Search
Response Equipment - ID

- NaI and LaBr₃ hand-held Radiation Isotope Identification Devices (RIIDs)
- Liquid nitrogen and mechanically cooled HPGe systems for better spectral resolution and identification of radionuclides
Limitations on Assistance

- RAP supports and provides assistance to the appropriate on-scene authority; RAP does not preempt state, tribal, or local authority.
- The primary responsibility for the incident remains with the owner of the radioactive material.
- RAP does not take custody of the radioactive material unless it is DOE-owned or Special Nuclear Material.
Other RAP 3 Support

- Training for External Partners
  - FBI Stabilization Training at Hazardous Devices School
  - USCG Training at the Maritime Law Enforcement Academy
  - FEMA Radiological Concepts, Tactics and Integration Course
- Drill & Exercise Participation
Other RAP 3 Support

- DOE/NNSA Transportation Activities
- National Special Security Events and Special Events
- NASA Space Launches
Mission: Provide rapid survey of radiation and contamination following a radiological emergency; search for lost or stolen radioactive sources.
AMS Region 3

- Piloted and implemented in DOE Region 3
- Commercial off-the-shelf equipment; non-NNSA aircraft; RAP personnel
- Established as an operational capability in November 2009
Current DOE AMS Capability
AMS Region 3 Aircraft

- Customs & Border Protection (CBP)
  - P-3 aircraft
  - C-12 aircraft
  - ASTAR-350 helicopter
- DOE-SR BK-117
AMS Region 3 Personnel

- **DOE AMS Team**
  - Two-person team consisting of a qualified RAP Team Captain and RAP Team Scientist trained for AMS operations

- **Flight Crews**
  - Eight-person CBP P-3 crew
  - Two-person CBP C-12/ASTAR 350 crew; Centerra crew
AMS Region 3 Equipment

- P-3
- BK-117
- C-12
- ASTAR
Mobile Detection Deployment Unit (MDDU)

Mission: Provide a deployed asset for state and local authorities to augment various incident response teams, including RAP. Bridge infrastructure gaps in PRND capabilities during heightened alert states, intelligence driven events, high risk NSSEs and other Special Events.
MDDU

- Domestic Nuclear Detection Office Funded; DOE Managed and Executed
- Two RAP personnel deploy with the MDDU Package
- Provides equipment and training for force multiplication
MDDU

Trailer provides equipment for 20 personnel - 3 Mobile Systems, 10 backpacks, 24 PRDs, 11 ID PRDs, 4 Handheld RIIDs, 2 HPGe RIID, 12 radios, 4 laptops
MDDU Locations

Large Trailers: MDDU #1 - 2
Small Trailers: MDDU #3 - 6
Path to Other DOE/NNSA Assets

Crisis Response:
Technical operations in support of lead Federal agencies to counter and reduce threat associated with nuclear weapons and radiological devices

COMMAND AND CONTROL

Search
Identification
Stabilization
Render Safe

Monitoring & Sampling
Modeling
Medical

Technical/Nuclear Forensics
DOE Forensics
Disposition and Forensic Evidence Analysis Team

Consequence Management:
Modeling, data collection, and delivery of technical assessments for key leaders on the consequences of nuclear or radiological accidents or incidents
QUESTIONS?