

US EPA ARCHIVE DOCUMENT



USEPA REGION 7 MIXED RADIATION HAZARD RESPONSE FACT SHEET SUPERFUND DIVISION / EMERGENCY RESPONSE BRANCH

The Environmental Protection Agency (EPA) Region 7, Emergency Response and Removal Branch can assist the State and Local authorities in responding to a release of radiation or a release of mixed hazardous substances and radioactive materials. Region 7 operates a 24-hour spill reporting line staffed by a Duty Officer. The Duty Officer analyzes reports to determine if an EPA On-Scene Coordinator (OSC), should respond to the spill or release and/or coordinate with local and state officials.

EPA Region 7 Assets and Contracts

The EPA response to a spill of radioactive or mixed material would likely include the deployment of at least one OSC and our Superfund Technical Assessment Response Team (START) contractor to provide assistance to the local incident commander. The Region 7 START contract is currently held by Tetra Tech and Seagull Environmental with personnel located in the St. Louis area. The START is able to subcontract laboratory analytical services for both mixed waste and radioactive materials. For cleanup or building decontamination operations, EPA Region 7 has the contract services of our Emergency and Rapid Response Services (ERRS) contractor – currently Environmental Restoration of Fenton, Missouri. ERRS has access to cleanup personnel as well as a wide array of heavy equipment.

Specific to EPA personnel and equipment, EPA Region 7 has several assets and various radiation monitoring and detection equipment. This would include two SAM-940s and three IdentifINDERS. These instruments measure gamma radiation to identify unknown radioactive isotopes. EPA Region 7 also has approximately fifteen handheld meters that can detect either alpha, beta, or gamma radiation. These meters are primarily designed for measuring radiation on ground or building surfaces but can be used to detect higher levels of airborne radiation. In addition, EPA Region 7 has two portable portal monitors which could be used to assist with personal decontamination efforts. Most of this equipment is stored in Kansas City, but a subset of the equipment is stored at our facility in Fenton. Region 7 also has a mobile command post, fully equipped response truck, satellite and cellular communications capabilities, and personnel, which can be mobilized immediately. Outside of Region 7, EPA has access to radiation emergency response assets in the other nine EPA Regions as well.

EPA Special Teams

As the situation expands or becomes more complicated, the OSC is authorized to request assistance from EPA's Radiological Emergency Response Team (RERT) in Montgomery, Alabama or EPA's radiation scientists in headquarters Office of Radiation and Indoor Air (ORIA). RERT has specialized radiation monitoring and communications equipment, as well as the National Analytical Radiation Environmental Laboratory (NAREL) located in Montgomery. RERT can also deploy one of two Mobile Environmental Radiation Laboratories (MERLs) out of Montgomery or Las Vegas, Nevada to provide on-site analytical services.

EPA also has the Environmental Response Team (ERT) with assets in Edison, New Jersey with specialized mobile equipment and personnel for chemical and oil responses.



EPA has the Chemical, Biological, Radiological, and Nuclear (CBRN) Consequence Management Advisory Team (CMAT) in various locations. The CMAT has the unique aerial chemical and radiation detection capabilities of the Airborne Spectral Photometric Environmental Collection Technology (ASPECT), based near Dallas, Texas. The CMAT also has specialized scientists and engineers to provide 24/7 scientific and technical advisement for all phases of consequence management, including sampling, decontamination, and clearance of CBRN contaminated sites.

Federal Partners

For the worst cases, EPA could access the Federal Radiological Monitoring and Assessment Center (FRMAC), of which EPA is a member. This is a federal asset available on request by the Department of Homeland Security (DHS) to assist local and state agencies during a response to a nuclear or radiological incident. The FRMAC would be the control point for the federal assets involved in monitoring the potential impacts of the incident. EPA is also a part of the FRMAC's Advisory Team for environment, food, and public health; which works with the data collected by the FRMAC to interpret the protective action guides (PAGs) for a specific event.

Lastly, as Co-Chair of the Regional Response Team 7, EPA has access the unique assets and expertise of 15 other federal agencies including the U.S. Coast Guard Strike Teams (USCG), Department of Energy (DOE) teams, National Nuclear Security Administration (NNSA) Radiological Assistance Program (RAP) teams, Department of Defense, and other governmental agencies in the case of an emergency.

Initial Response

EPA OSCs and contractors could be in St. Louis and St. Charles Counties within 1-4 hours depending on deployment status and location at any given time. EPA Special Teams (RERT, ERT, and CMAT) could be available remotely immediately and wheels-up within an hour with arrival time dependent on their home office location. The ASPECT is available 24/7 and could be flying over St. Louis collecting data within approximately 5-6 hours. Likely initial EPA response actions would include, but not be limited to:

- Deploy OSCs, contractors, and ASPECT.
- Coordinate and establish an air monitoring and sampling plan.
- Provide recommendations on Protective Action Guidelines and decisions.
- Assist in identifying protective actions including shelter-in-place, evacuation, relocation, ingestion pathway, and environmental impact (sampling plan).
- Assist local and state agencies with initial monitoring.
- Assist in identifying critical resources that are available or lacking within the impacted area, region, or state which can be brought to bear on the response.
- Assist in recommending/identifying potential disposal sites for the disposal of contaminated debris.



Radiation Related Community Planning Guidance Links:

<http://www.epa.gov/radiation/index.html>: The EPA Radiation protection Home Page. Congress designated EPA as the primary federal agency charged with protecting people and the environment from harmful and avoidable exposure to radiation. Community planners can find information on the 10 EPA Regions, ORIA, ERT, RERT, RadNet and other radiation related sites. The site also has links to other governmental entities associated with radiological responses.

<http://www.epa.gov/radiation/rert/pags.html>: In the event of a radiological emergency, responders can instruct the public to take protective actions such as staying indoors to prevent exposure to unhealthy amounts of radiation. EPA developed a manual of Protective Action Guides to help responders plan for radiation emergencies. The current 1992 PAG Manual and the updated version can be found here.

<http://www.nv.doe.gov/nationalsecurity/homelandsecurity/frmac/default.aspx>: The Federal Radiological Monitoring and Assessment Center (FRMAC) is a federal asset available on request by the Department of Homeland Security to respond to nuclear/radiological incidents. Within this link you can find the National Nuclear Security Administration (NNSA) Nevada Field Office. They can help your community in developing and maintaining plans and procedures, and to identify and train resources and personnel to ensure an effective response to any major radiological emergency occurring at any location within the United States.

<http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf>: An introductory guide to population monitoring in radiation emergencies for public health officials and emergency preparedness planners at the state and local levels, developed by the Centers for Disease Control and Prevention. This planners' guide focuses on the significant effort required to identify, screen, measure, and monitor populations (people and possibly even their pets) for exposure to or contamination from radioactive materials.

http://www.remm.nlm.gov/remm_Preplanning.htm: The Radiation Emergency Medical Management site has a section on Planners: Preparedness and Response. Disaster response plans describe how various governmental and private sector entities are supposed to function individually and collaboratively during a disaster in order to protect the public and key infrastructure and continue to perform their missions. Within this link you can reference disaster response planning documents that address all hazards (chemical, biological, radiological, natural disasters, etc.).