



Nuclear Incident Response Team (NIRT)

What is NIRT?

NIRT is an interagency response effort, managed by Federal Emergency Management Agency (FEMA) when activated, that provides advanced radiological and nuclear (R/N) response and recovery capabilities through cooperation and coordination with the Department of Energy (DOE) and the Environmental Protection Agency (EPA).

Partners

The NIRT's two primary partner agencies – DOE's National Nuclear Security Administration (NNSA) and EPA's Office of Radiation and Indoor Air (ORIA) and Office of Environment and Land Management (OLEM) – are responsible for management of the assets that comprise the NIRT. These responsibilities include the day-to-day managing, maintaining readiness for response and deployment, and exercising of assets. They also maintain tactical control over their respective NIRT assets that support R/N incident response and recovery. In addition, FEMA, EPA, and DOE work with other federal interagency capabilities and resources not coordinated within the NIRT program, such as [CBRNResponder](#), the Nuclear Radiological Incident Task Force (NRITF), and the Advisory Team for Environment, Food, and Health (A-Team)¹, to help inform NIRT capabilities.

History and Authorities

The NIRT was formally established under the Homeland Security Act of 2002. Although DOE and EPA assets and teams can deploy under their own authorities – when operating as a collective – DHS, DOE and EPA will operate with FEMA's coordination. The NIRT may be activated in response to: the effects of nuclear power plant (NPP) accidents; threats of a deliberate attack with radiological dispersal devices (RDDs); incidents involving nuclear weapons; or other types of possible or actual R/N releases.

Capabilities

Through DOE and EPA, the NIRT provides expert technical advice, first responder support, modeling and mapping, reachback laboratory analysis, deployable capabilities, and training to support R/N incident response and recovery operations. These teams and capabilities ultimately support federal, state, local, tribal, and territorial (FSLTT) agencies and communities both pre- and post- R/N incident. Through the NIRT, FEMA, DOE, and EPA seek to further improve federal R/N response and recovery capabilities and help advance interoperability between assets and across agency boundaries by creating mutual training, standards, and exercise opportunities; funding equipment; and promoting joint homeland security planning efforts.

¹ See the [Nuclear Radiological Incident Annex \(NRIA\) to the Response and Recovery Federal Interagency Operations Plan \(FIOP\)](#).





DOE/NNSA Assets

Nuclear Emergency Support Team (NEST)
Triage



EPA Assets

Airborne Spectral Photometric Environmental
Collection Technology (ASPECT)
RadNet
Radiological Emergency Response Team
(RERT)



Interagency Assets

CBRNResponder Network
Federal Radiological Monitoring and
Assessment Center (FRMAC)

Figure 1: NIRT and Other Interagency Assets

NIRT Asset Overview

DOE/NNSA: Nuclear Emergency Support Team (NEST)

NEST is the umbrella designation that encompasses all the agency's R/N emergency response functions. Examples of NEST capabilities include: field-deployed and remote technical support to the weapons of mass destruction (WMD) counter operations; public health and safety missions; and responses to United States nuclear weapon accidents and incidents. To learn more visit NEST's website: <https://www.energy.gov/nnsa/nuclear-emergency-support-team-nect>

EPA: Radiological Emergency Response Team (RERT)

RERT provides specialized R/N response support to FSLTT communities through radiation risk evaluation, monitoring radioactivity, and supporting clean up in affected areas. RERT is a multidisciplinary team of scientists, engineers, health physicists, communications experts and laboratory staff, who support response efforts during all stages of a R/N response. The team also maintains equipment and services for incident response such as handheld survey equipment, air sampling equipment, field gamma spectroscopy, and more. RERT is comprised of National Analytical Radiation Environmental Laboratory (NAREL), RadNet, and National Center for Radiation Field Operations (NCRFO). To learn more visit RERT's website: <https://www.epa.gov/radiation/radiological-emergency-response>

Additionally, NIRT works with other federal interagency capabilities and resources such as:

Federal Radiological Monitoring and Assessment Center (FRMAC)

FRMAC is an interagency consortium with representatives from various federal, state, and local radiological response organizations that assist FSLTT emergency management communities during R/N incident response and recovery. FRMAC is composed of representatives from various FSLTT R/N response organizations including DOE's



NEST deployable teams and home based technical expertise and EPA’s deployable teams and assets. This interagency asset provides technical expertise and operational frameworks that support coordination of all federal off-site radiological monitoring and assessment activities. Examples of FRMAC capabilities include: verifying radiation measurements, interpreting radiation distributions, and characterizing overall radiological conditions. To learn more visit FRMAC’s website: <https://www.nnss.gov/pages/programs/FRMAC/FRMAC.html>

Table 1: NIRT Asset Websites

| Agency | Asset | Website |
|--------|--------|---|
| DOE | NEST | https://www.energy.gov/nnsa/nuclear-emergency-support-team-nest |
| EPA | ASPECT | https://www.epa.gov/emergency-response/aspect |
| EPA | RERT | https://www.epa.gov/radiation/radiological-emergency-response |
| EPA | RadNet | https://www.epa.gov/radnet |