

**SUBJECT: DEPARTMENTAL RADIOLOGICAL EMERGENCY RESPONSE ASSETS**

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1. **OBJECTIVES.** To establish requirements and responsibilities for the Department of Energy's (DOE's) National Nuclear Security Administration (NNSA) national radiological emergency response (RER) assets and capabilities and Nuclear Emergency Support Team (NEST) assets. This Order is not intended to provide details concerning operational procedures nor readiness reporting of NEST assets. It provides the basic structure of the assets and management that collectively comprise the NEST and RER. Operational procedures and reporting requirements are contained in handbooks, manuals, standard operating procedures, policy notes, classification guidance, memoranda of understanding and agreement, field operations guides and other documentation maintained and promulgated by the NNSA Office of Emergency Operations and Office of Emergency Response. These procedures follow the structures described in the National Incident Management System (NIMS) and are consistent with the National Response Plan (NRP) and DOE Order 151.1C. The assets described in this Order consist of both the personnel and equipment needed to perform carefully defined missions related to nuclear/radiological emergency response. Other existing statutes, regulations, directives, and standards applicable to emergency response assets also apply for planning, preparedness and response.
  
2. **CANCELLATION.** Cancellation of an Order does not, by itself, modify or otherwise affect any contractual obligation to comply with the Order. Contractor requirement documents (CRDs) that have been incorporated into or attached to a contract remain in effect until the contract is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements. The following directives are canceled.
  - a. DOE O 5530.1A, *Accident Response Group*, dated 9-20-91.
  - b. DOE O 5530.2, *Nuclear Emergency Search Team*, dated 9-20-91.
  - c. DOE O 5530.3, *Radiological Assistance Program*, dated 4-10 -92, with Change 1, dated 4-19-92.
  - d. DOE O 5530.4, *Aerial Measuring System*, dated 9-20-91.
  - e. DOE O 5530.5, *Federal Radiological Monitoring and Assessment Center*, dated 7-10-92, with Chg 1, dated 12-2-92.
  
3. **APPLICABILITY.**
  - a. **DOE Elements.** Except for the exclusions in paragraph 3c, this Order applies to all DOE elements and NNSA organizations responsible for emergency response assets. Attachment 1 lists organizations to which this Order does and does not apply.

The National Nuclear Security Administration (NNSA) Administrator shall assure that NNSA employees and contractors comply with their respective responsibilities under this directive. Nothing in this Order will be construed to interfere with the NNSA Administrator's authority under section 3212(d) of Public Law (P.L.) 106-65 to establish Administration specific policies, unless disapproved by the Secretary.

- b. DOE Contractors. Except for the exclusions in paragraph 3c, the CRD (Attachment 2) sets forth requirements. The CRD will apply to the extent set forth in each contract.
  - c. Exclusion. The facilities and activities of the NNSA Office of Naval Reactors are excluded from requirements of this Order.
4. REQUIREMENTS. NEST and RER assets, which are composed of DOE and NNSA personnel and equipment, are structured to provide worldwide technical support in response to radiological events and emergencies especially as the Coordinating Agency in accordance with the NRP. Although all of the NEST and RER assets will achieve prescribed readiness conditions during an emergency response, certain assets are more often associated with the crisis response phase of a radiological event while others are more often associated with the consequence management phase. The Radiological Assistance Program (RAP) may be expected to provide technical support in both phases; however, for descriptive purposes, RAP is included as a consequence management asset in this Order.
- a. Department of Homeland Security (DHS) Operational Control—Domestic Incidents of National Significance.
    - (1) Section 504 of the Homeland Security Act of 2002 [Public Law (P.L.) 107-296 codified at 6 U.S.C. Sec 314] states that in response to an actual or threatened terrorist attack, major disaster, or other emergency in the United States, the Nuclear Incident Response Team shall operate as an organizational unit of the DHS and will be subject to the direction, authority, and control of the Secretary of Homeland Security.
    - (2) A 2003 memorandum of agreement (MOA) between DHS and DOE supports Section 504 and further notes that the agreement may continue to be refined, and amended
    - (3) Section 506 of the Homeland Security Act of 2002 includes in its definition of the NIRT those entities of the DOE that perform nuclear or radiological emergency support functions (including accident response, search response, advisory and technical operations functions), radiation exposure functions at the medical assistance facility known as the Radiation Emergency Assistance Center/Training Site (REAC/TS), radiological assistance functions, and related functions.

- (4) This Order does not describe when and how DOE assets come under the operational control of DHS.

NOTE: Consult guidance in the most recent version of the DOE-DHS MOA, referenced in Paragraph 4.a.(2) above, when NEST assets are deployed or providing assistance during a DHS declared incident of national significance.

b. General.

- (1) All operational functions must be consistent with current Presidential Decision Directives and Executive Orders.
- (2) The Director, NNSA Office of Emergency Response has primary responsibility for—
  - (a) radiological emergency response asset management and
  - (b) development and oversight of annual work authorization statements.
- (3) All work authorization statements must be performance-based and consistent with DOE's strategic management system.
- (4) Each emergency response asset must provide a Program Execution Plan (PEP) for program planning, budget formulation, or documentation of part or all of a work assignment.
- (5) The Director, NNSA Office of Emergency Response may delegate to the field element managers certain responsibilities and authorities such as the assignment of tasks and/or distribution of funds to contractors under their cognizance. In such circumstance, the DOE field element is responsible for reporting, oversight, and management of the task.
- (6) Each field office emergency response asset manager will develop and maintain a 3-year program plan and will submit to Headquarters quarterly reports on accomplishments, shortfalls, and the status of specified funding activities and tasks.
- (7) DOE, including NNSA, Headquarters and field managers must have readiness assurance programs in place to confirm that
  - (a) capabilities are sufficient to implement emergency plans and
  - (b) appropriate and timely improvements are made to meet requirements identified through coordinated emergency planning, resource allocation, training, drills, exercises, and actual responses to events.

- (8) The Director, NNSA Office of Emergency Response will approve the governing response plan for each asset.
- (9) Public affairs plans for the emergency response assets must address crisis communications and be coordinated with emergency response assets' governing response plans.
- (10) The responsibility for public information coordination will be defined in emergency response assets' governing response plans.
- (11) If an accident or significant incident involving a nuclear weapon or component occurs while in DOE custody, the Headquarters Office of Public Affairs, and the DOE Senior Energy Official (SEO) must confirm to the appropriate public authorities and media the presence of nuclear weapons or components as necessary to ensure public safety.
- (12) The following standardized terminology must be used in plans and procedures when referring to emergency response asset readiness conditions.
  - (a) Alert: Program personnel are notified that mobilization or deployment is being considered. Key personnel report to designated locations; other personnel remain available for mobilization, activation, and deployment.
  - (b) Mobilize: Emergency response equipment and personnel who are deployable or who support deployment are assembled at designated locations in preparation for deployment.
  - (c) Activate: DOE organizations assemble personnel at home stations, but do not deploy. An example is home team support.
  - (d) Deploy: Emergency response assets are physically relocated to the site of an emergency.
- (13) All emergency response assets must meet the following requirements.
  - (a) Develop the plans and procedures necessary to implement the provisions of this Order.

NOTE: Plans and procedures must include Integrated Safety Management and Quality Assurance Program concepts.
  - (b) Maintain the capability for notification 24-hours/day.
  - (c) Each asset will participate in an emergency response exercise at least once every 3 years. Individual emergency responders will

participate in the exercise in any position for which they are qualified.

- (d) Individual emergency responders will participate in drills and training as required to remain qualified in each position they are expected to fill.
  - (e) Establish a system of command, control, and communications for deployed and home team organizations that is interoperable with Federal, State, and local emergency response systems.
  - (f) Include in security measures identification and protection of classified matter.
- (14) Emergency response assets must establish, maintain, and practice deploying personnel and equipment to any potential event location within prescribed guidelines.
  - (15) Organizations that activate in support of deployed assets must establish similar capabilities.
  - (16) Deployment of emergency response assets, including Radiological Assistance Program (RAP) deployment, for events known to involve weapons of mass destruction or counterterrorism must be approved by the NNSA Office of Emergency Operations Emergency Response Officer (ERO).
  - (17) Personnel designated for worldwide deployment by the Director, NNSA Office of Emergency Response, must obtain and maintain valid United States passports and current immunizations and must take all other actions necessary to qualify fully for worldwide deployment.
  - (18) All emergency response personnel who have or may have contact with classified matter must have the appropriate valid security clearance.
  - (19) Personnel with potential access to nuclear weapons or related information must have a Q clearance and the appropriate Sigma access.
  - (20) For an off-site radiological accident involving a nuclear weapon, special nuclear material, or classified components, the senior DOE representative having custody of the material at the scene will declare a national security area for safeguarding classified information, restricted data, equipment, and material.
  - (21) When an event involves a damaged or recovered nuclear weapon, improvised nuclear device (IND), or radiological dispersal device (RDD) in DOE custody, the following provisions apply:

- (a) The safe condition of items for shipment and staging must be affirmed by an appropriate risk assessment prior to movement.
  - (b) All IND design or concept-related work must be coordinated with the NNSA Deputy Administrator for Defense Programs to fulfill the requirements for Sigma 20 information as contained in DOE O 457.1, *Nuclear Counterterrorism*, dated 2-7-06.
  - (c) When emergency conditions no longer exist (as described in DOE O 151.1C) the end (termination) of the emergency may be declared.
- (22) By law, only the DOE or the Department of Defense (DoD) may take physical custody of nuclear weapons.
- (23) When emergency response assets have returned to their home stations following an emergency response mission, the SEO will prepare a report summarizing the essential elements of the response and lessons learned, which will be forwarded to the Associate Administrator, NNSA Office of Emergency Operations within 10 working days.
- (24) The NNSA Office of Emergency Response lead exercise planner will—
- (a) Prepare an after action report (AAR) for all exercises to capture lessons learned.
  - (b) Submit the report to the Director, NNSA Office of Emergency Response, within 30 days of exercise completion.
  - (c) Incorporate lessons learned from actual responses and exercises into training programs and emergency response asset response plans and procedures.
- (25) In actual emergencies, actions taken to prevent an imminent nuclear detonation or release of radioactive material require wide latitude with respect to compliance with the requirements of DOE/NNSA directives.
- (a) These directives (e.g., Policies, Orders, Notices, Manuals, and Guides) are intended to instruct employees in the performance of their jobs and enable them to work effectively within DOE/NNSA and with other agencies, contractors, and the public.
  - (b) In an actual emergency, the preservation of life and property will be of paramount importance.
  - (c) When preservation of life and property requires an immediate decision that deviates from DOE/NNSA directives, the on-scene

SEO will use his or her best judgment to decide if a deviation is warranted and to implement that decision immediately.

- (d) The SEO will report deviations in writing within 24 hours to the Associate Administrator, NNSA Office of Emergency Operations. Reports will provide as much detail as possible about the special circumstances that existed at the time that warranted deviation from pertinent directives.
- c. Emergency Response Asset-Specific Requirements. The response to a nuclear or radiological emergency is divided into two phases throughout this Order. As a rule, the Crisis Response phase includes those activities that take place up to the point of a nuclear detonation or dispersal of radiological contaminants. The Consequence Management Phase takes place after the incident has occurred. Crisis response depends on intelligence and the detection of radioactive material. Many nuances must be included in this general rule. Planning for Consequence Management takes place during the Crisis Response Phase. In some cases (e.g., non-explosive dispersal), the incident could take place before Crisis Response assets are activated and the Consequence Management phase would then comprise the initial response. In general, however, Crisis Response takes place before and attempts to prevent an incident while Consequence Management takes place after and attempts to mitigate the consequences of an incident that has already occurred. DOE/NNSA will use the following emergency response assets to respond to radiological emergencies. When these assets are deployed, they will be led by an SEO.
- (1) Crisis Response Assets, technical support to the primary Federal agency (PFA), Federal Bureau of Investigation (FBI) or Department of Defense (DoD) for effects prediction, search and identification of nuclear materials, diagnostics and assessment of suspected nuclear devices, render-safe procedures, and packaging for transport to final disposition. Crisis response assets include the following:
    - (a) Nuclear/Radiological Advisory Team (NRAT), lead technical response in support of the NA-42 SEO; a deployable asset capable of providing limited technical assistance, to include search, diagnostics, effects prediction, and reach back to triage, home teams, and Atmospheric Release Advisory Capability (ARAC). NRAT supports the Domestic Emergency Support Team (DEST), Foreign Emergency Support Team (FEST), national special security events (NSSE), and the Joint Technical Operations Team (JTOT) Phase 1 East.
    - (b) Search Support Team, a worldwide deployable search asset that can conduct covert nuclear radiological and maritime searches. The team provides technical and operational support for regional assets during complex search operations and full response for

independent search deployment and reach-back capability to home team search (HTS) and triage.

- (c) Joint Technical Operations Team (JTOT), a deployable asset that—
- 1 provides to the PFA, FBI or DoD technical operations advisory and operational support and advanced technical assistance for nuclear and radiological weapons of mass destruction;
  - 2 provides extended technical support to other deployed operations through an emergency response home team;
  - 3 performs risk assessments to determine safe-to-move and safe-to-ship status before recommending transport of a weapon of mass destruction to a designated trans-load or disposition site; and
  - 4 accepts custody and control of improvised nuclear devices, radiological dispersal devices, and nuclear material from weapons of mass destruction on behalf of DOE.
- (d) Accident Response Group (ARG), a deployable asset that—
- 1 manages technical resolution of accidents or significant incidents involving United States nuclear weapons that are in DOE custody at the time of an accident or incident;
  - 2 provides timely worldwide support to DoD in the technical resolution of accidents and significant incidents involving United States nuclear weapons in DoD custody;
  - 3 performs risk assessments to determine safe-to-ship status of damaged nuclear weapons before recommending transport to the designated disposition site; and
  - 4 accepts custody and control of nuclear weapons or weapons components on behalf of DOE.
- (e) RAP Search Team, a worldwide deployable asset geographically focused on the national capital region (NCR) to provide covert maritime search for radiological materials and traditional RAP missions. The team may deploy out of the NCR to conduct missions directed by HQ NNSA.
- (f) NNSA Home Team, an asset that provides the PFA and field team with in-depth research on technical questions and concurrence on



actions being taken by the field team. The home team provides services in a non-threatening environment to validate field team recommended actions prior to implementation and to ensure that when the actions are taken, no adverse effects will result.

- (g) Disposition Team, a deployable asset that provides for the final disposition of a rendered safe device from JTOT or ARG.
- (2) Consequence Management Assets, technical support to the PFA and State, Local and Tribal agencies for computer based prediction, aerial measurement and ground monitoring of radiological contamination. Assets also provide medical advice and assistance for radiation-induced injuries and preliminary identification of radiological materials. Consequence management assets include the following:
- (a) Aerial Measuring System (AMS), a deployable asset that measures and evaluates the radiological information necessary to address the relevant radiological impacts of accidents and radiological national security emergencies. AMS detects and measures radioactivity over large areas using both fixed- and rotary-wing aircraft.
  - (b) Atmospheric Release Advisory Capability (ARAC), a laboratory-based program that provides near real-time computer-based predictive modeling to assess events involving release of hazardous radiological materials into the atmosphere. Predictions are produced for local and Federal leaders to determine the protective actions necessary to ensure the health and safety of people in affected areas. The ARAC program includes—
    - 1 the National Atmospheric Release Advisory Center (NARAC) at Lawrence Livermore National Laboratory (LLNL), which has a staff of physical scientists, computer scientists, engineers, and technicians that provide services 24/7 for planning, emergency response, and detailed hazard studies;
    - 2 the High Consequence Assessment and Technology group from Sandia National Laboratories (SNL), which provides additional NARAC tools and expertise for nuclear and conventional explosive source characteristics/effects and dose/risk assessment;
    - 3 a suite of NARAC software tools including simple stand-alone, local-scale plume modeling tools for end-users' computers, and Web- and Internet-based software to access advanced three-dimensional modeling tools and expert analyses from the national center at LLNL;

- 4 the Interagency Modeling Atmospheric and Assessment Center (IMAAC), which supports Federal responses to incidents of national significance involving hazardous material releases to the atmosphere; and
  - 5 the computer-based system at NARAC, which provides realistic plots or maps of potential radiation dose and exposure, and estimates of the paths of nuclear contaminants released into the atmosphere.
- (c) Consequence Management Teams, worldwide deployable teams and a home team that provide advice, planning, and operational capabilities during the crisis and consequence management phase of emergencies involving radioactive material.
- (d) A Consequence Management Home Team (CMHT), which utilizes NARAC predictions and monitoring data to assess radioactive material release hazard potential. The team plans and coordinates logistics for DOE consequence management assets and provides technical support to deployed operations.
- (e) Consequence Management Response Teams (CMRTs), which deploy in three phases with departure time requirements ranging from 4 to 24 hours. Assets for these teams are drawn from the Remote Sensing Lab for the CMRT I and II and the national laboratories and RAP regions to support CMRT III of the response. These teams provide radiological release monitoring, sampling, analysis, and data assessments. CMRTs draw resources from the emergency response assets and become the DOE coordination element for the Federal Radiological Monitoring and Assessment Center (FRMAC).
- (f) Federal Radiological Monitoring and Assessment Center, a Federal interagency center responsible for coordinating monitoring and assessment activities with the affected state and local agencies. The Nuclear/Radiological Annex to the NRP assigns DOE responsibility for
- 1 developing and maintaining FRMAC policies and procedures,
  - 2 determining FRMAC composition, and
  - 3 maintaining FRMAC operational readiness
  - 4 managing the FRMAC during initial phases of a radiological incident with transfer of the leadership role to

the Environmental Protection Agency (EPA) at a mutually agreeable time. Consequence management teams provide command and control, planning, and technical elements needed to accomplish assigned FRMAC responsibilities. All other departmental radiological emergency response assets will be prepared to contribute to the FRMAC through the consequence management teams.

- (g) The Radiological Assistance Program, a deployable, tailored capability that provides first-responder radiological assistance to protect the health and safety of the public and the environment. Upon request, RAP provides radiological assistance to other Federal agencies, state, tribal, and local governments, and private businesses or individuals in the detection, identification and analysis, and response to events/incidents involving radiological/nuclear materials. Regional locations and service areas are as follows.
- (h) Region 0 including RAP Search Team, Andrews AFB, Maryland, serving the NCR and the east coast of the United States; includes the traditional RAP capability and enhanced search resources to provide technical and operational expertise to conduct independent, low profile searches, apprentice searcher training, and aerial and maritime searches Maritime operations will operate in port and at sea.
  - 1 Region 1, Brookhaven, New York, serving Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, District of Columbia.
  - 2 Region 2, Oak Ridge, Tennessee, serving Arkansas, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, Virginia, West Virginia, Puerto Rico, United States Virgin Islands.
  - 3 Region 3, Aiken, South Carolina, serving Alabama, Florida, Georgia, North Carolina, South Carolina.
  - 4 Region 4, Albuquerque, New Mexico, serving Arizona, Kansas, New Mexico, Oklahoma, Texas.
  - 5 Region 5, Chicago, Illinois, serving Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

- 6     Region 6, Idaho Falls, Idaho, serving Colorado, Idaho, Montana, Utah, Wyoming.
- 7     Region 7, Livermore, California, serving California, Hawaii, Nevada, Pacific Rim Territories.
- 8     Region 8, Richland, Washington, serving Alaska, Oregon, Washington.
- 9     Radiation Emergency Assistance Center/Training Site (REAC/TS): a medical consulting and/or deployable, tailored, program that provides a 24-hour response center for medical advice, specialized training, and unique on-site assistance in triage, diagnosis, and treatment of all types of radiation-induced injuries.

(3)     Special Capabilities.

- (a)     Radiological Triage, a non-deployable capability provided by on-call scientists to determine, through analysis of nuclear spectra collected on-scene, the radioisotope composition of an item in question. Its primary mission is to determine if a radioactive object contains special nuclear material.
- (b)     Domestic Nuclear Event Attribution (DNEA). The Defense Threat Reduction Agency is developing the ability to identify the hostile nation or terrorist group responsible for a detonation or malicious deployment of radioactive material in the United States. The DNEA program brings together expertise from DOE and DoD laboratories, law enforcement organizations and other support groups. The DNEA program focuses on two types of events—nuclear devices and Radiological Dispersal Devices (RDDs). The Associate Administrator, NNSA Office of Emergency Operations will support the establishment of the capability to quickly receive and analyze samples from an RDD or nuclear event.

(4)     Management and Administration.

- (a)     Emergency Response Officer serves as the 24-hours/day emergency response representative of the Associate Administrator, NNSA Office of Emergency Operations, with authority to alert, mobilize, activate, or deploy any of the NEST assets.
- (b)     Senior Energy Official (SEO).

- 1     There will always be an SEO at the scene of any emergency where DOE emergency response assets have a

presence. The SEO acts as the single point of contact for DOE nuclear/radiological support provided to the primary Federal agency, coordinating agency, and on-scene commander. Deployed emergency response assets will work in support of, and under the direction of, the SEO.

- 2 The SEO will be an NNSA Federal employee.
- 3 During any emergency operation or deployment, and in the absence of an NNSA Federal employee, the senior DOE/NNSA Federal employee on scene or deploying with an asset will be the acting SEO.
- 4 When the acting SEO is not an NNSA employee, deployed NNSA employees or contractors will work in coordination with the acting SEO.
- 5 The Director, NNSA Office of Emergency Response, may designate an SEO from Headquarters or the field to provide the overall on-scene leadership of NNSA assets during any given deployment.
- 6 During any emergency operation or deployment where the acting SEO is a DOE employee and NNSA employees or contractors are deployed, the Director, NNSA Office of Emergency Response, will appoint and deploy an SEO from Headquarters or the field.
- 7 The Director, NNSA Office of Emergency Response, will resolve on a real-time basis any differences that may arise between an acting SEO and NNSA emergency response assets.
- 8 Through the ERO, the SEO or acting SEO in all cases, will keep the Director, NNSA Office of Emergency Response, apprised of the on-scene situation.

(c) Federal Team Leaders.

- 1 Provide leadership at the working point for the deployed team.
- 2 Provide leadership of the home team nodes to ensure a unified response to the first responders or to deployed assets.

- 3 The Federal Team Leaders will be NNSA or DOE Federal employees or Intergovernmental Personnel Act (IPA) assignees or detailees assigned or detailed to NNSA and trained for each position assigned.

5. RESPONSIBILITIES.

a. Deputy Administrator for Defense Programs, NNSA.

- (1) Maintains the capability to accept custody of and handle the disposition of a damaged or recovered nuclear weapon, Improvised Nuclear Device, or Radiological Dispersal Device.
- (2) In the event of a damaged or recovered, nuclear weapon, Improvised Nuclear Device, or Radiological Dispersal Device in DOE custody, may declare the end of the emergency when emergency conditions as described in DOE O 151.1C no longer exist.
- (3) Approves the final disposition decisions for nuclear weapon, Improvised Nuclear Device, or Radiological Dispersal Device in DOE custody. These decisions include the decision to disassemble, destroy, or employ extended staging, and the method of destruction, if applicable.

b. Associate Administrator, NNSA Office of Emergency Operations.

- (1) Provides a liaison officer (DOE LNO) to the DHS Secretary, or designee, to assist with incident management during a DHS deployment of the response assets. The necessity for a DOE LNO for a RAP team deployment will be decided jointly by DHS and DOE on a case-by-case basis. The DOE LNO will have knowledge of the DOE radiological emergency response assets, their capabilities, limitations, and employment.
- (2) Designates and deploys a SEO to the emergency location to act as the single point of contact for DOE nuclear/radiological support provided to the PFA and On-Scene Commander. When a SEO is designated, that person will report to the DHS Secretary, or designee, for the duration of the deployment.
- (3) Coordinates emergency response asset planning and support provided to field elements, other Federal agencies, or to State, local, or tribal governments, to ensure a cohesive Departmental response in the event of an emergency.
- (4) Provides strategic direction for the management and operation of the emergency response assets.

- (5) Provides adequate funding and resources for the emergency response assets.
- (6) Provides Headquarters level programmatic management, direction, and operational integration of the emergency response assets, and serves as the Headquarters point-of-contact for external inquiries regarding the emergency response assets.
- (7) Provides Headquarters level budget management, prioritization of activities, and allocation of funds for the emergency response assets.
- (8) Provides interagency coordination by maintaining liaison with Headquarters and operational elements of appropriate Federal agencies, including, but not limited to, coordinating integration of the emergency response assets into interagency agreements, plans, procedures, and exercises.
- (9) Monitors, tracks, and analyzes trends in the resolution/integration of lessons-learned from exercises and actual responses.
- (10) Ensures the interoperability and integrated field response of the emergency response assets, through the development and maintenance of an Asset Operations Integration Plan.
- (11) Conducts readiness assurance activities with regard to the emergency response assets.
- (12) Provides a 24-hour, on-call emergency response officer to serve as the approval authority for emergency response asset deployments.
- (13) Ensures that all IND design or concept-related work is coordinated with the Deputy Administrator for Defense Programs to fulfill the requirements for Sigma 20 information.
- (14) Provides advice and assistance to the DOE/NNSA classification office during the development and revision of classification guidance related to radiological emergency response and acts as the cognizant program office for such classification guidance and instruction.
- (15) In the event of a damaged or recovered nuclear weapon, Improvised Nuclear Device, or Radiological Dispersal Device, recommends, in coordination with the Manager, Nevada Site Office, to the Deputy Administrator for Defense Programs, NNSA, when the state of emergency should be terminated and recommends final disposition actions if emergency conditions still exist.

- (16) Notifies the Secretary for Homeland Security or his designee, within 15 minutes of receiving a request for RAP support or notification of RAP self-deployment.

c. Director, NNSA Office of Emergency Response.

- (1) Provides field-level management and operation of the Accident Response Group (ARG), including designation and training of candidates for ARG Team Leader. Facilitates integration between ARG and programs supporting the United States nuclear stockpile.
- (2) Designates the SEO for nuclear weapon accidents that occur while the nuclear weapon is in DOE or DoD custody.
- (3) Establishes procedures for declaring and maintaining a National Security Area to safeguard classified information and/or Restricted Data or equipment and material in the event of an off-site accident involving a nuclear weapon, special nuclear material, or classified components.
- (4) Establishes procedures for publicly acknowledging the presence of nuclear weapons at the scene of an accident.
- (5) Provides field-level management and operation of elements for the Joint Technical Operations Teams. Provides special personnel and equipment to support technical operations.
- (6) Provides field-level management and operation of the RAP Search Team, maintaining the required search and detection capabilities for worldwide use.
- (7) Determines to which major facilities management contracts this Order applies and informs the contracting officers for those contracts.
- (8) Keeps the Associate Administrator, NNSA Office of Emergency Operations, apprised of all deployments and on-scene situations where NNSA assets are deployed.
- (9) Develops, maintains and publishes a metrics system for measuring performance and capturing and tracking objective data regarding the status of the asset programs and performance in key functional areas. The specific metrics to be included and frequency of data reports will be developed in coordination with operations/field office managers.

d. Emergency Response Officer (ERO).

- (1) Serves as the 24-hours/day emergency response representative of the Associate Administrator, NNSA Office of Emergency Operations with



authority to alert, mobilize, activate, or deploy any of the NEST and RER assets.

- (2) Maintains knowledge of the NEST assets, capabilities, classification issues, and current readiness posture.
- (3) Advises the Director, NNSA Office of Emergency Response on the need to employ any or all NEST assets.
- (4) Remains in the National Capital Region (NCR) during assigned tour of duty.

e. Senior Energy Official (SEO).

- (1) Acts as the single point of contact for DOE nuclear/radiological support provided to the primary Federal agency, coordinating agency, and on-scene commander.
- (2) Directs activities of deployed emergency response assets.
- (3) Keeps the Director, NNSA Office of Emergency Response, through the ERO, apprised of the on-scene situation.

f. Federal Team Leader. NNSA or DOE Federal employee or Intergovernmental Personnel Act (IPA) assignees or detailees assigned or detailed to NNSA.

- (1) Provide leadership at the working point for the deployed team.
- (2) Provide leadership of the home team nodes to ensure a unified response to the first responders or to the deployed assets.

g. Manager, Livermore Site Office.

- (1) Provides field-level management and operation of the National Atmospheric Release Advisory Center (NARAC) through Lawrence Livermore National Laboratory.
- (2) Establishes operational procedures and training for ARAC.
- (3) Provides Director, NNSA Office of Emergency Response, emergency response field asset support for budget, personnel, and work for others coordination.
- (4) Determines to which major facilities management contracts responsibilities identified within this Order applies and informs the contracting officers for those contracts.

h. Manager, Oak Ridge Office.

- (1) Provides field-level management and operation of the Radiation Emergency Assistance Center/Training Site (REAC/TS).
- (2) Establishes operational procedures and training for REAC/TS.
- (3) Determines to which major facilities management contracts responsibilities identified within this Order applies and informs the contracting officers for those contracts.

i. Manager, Nevada Site Office.

- (1) Develops and maintains a Departmental capability to manage and conduct worldwide consequence management of a nuclear/radiological event.
- (2) Provides field-level management and operation of the Aerial Measuring System (AMS)
  - (a) develops a coordinated 5-year survey schedule for NNSA sites and facilities,
  - (b) reviews survey requests,
  - (c) forwards survey requests to the Director, NNSA Office of Emergency Response, for approval, and
  - (d) provides final reports of surveys to the cognizant Headquarters program office or Federal agency.
- (3) Provides field-level management and operation of the Consequence Management Home Team (CMHT) and Consequence Management Response Team (CMRT) and the Federal Radiological Monitoring and Assessment Center (FRMAC).
- (4) Designates and trains candidates for FRMAC Director and consequence management official.
- (5) Designates the FRMAC Director and supporting staff for emergencies with an off-site radiological release involving the deployment of FRMAC.
- (6) Provides field-level management and operation of the Search Support Team and the Nuclear/Radiological Advisory Team (NRAT), maintaining the required search and detection program for worldwide use.
- (7) Manages the logistics support base for the emergency response assets.

- (8) In coordination with the Associate Administrator, NNSA Office of Emergency Operations, and the Director, NNSA Office of Emergency Response, recommends to the NNSA Deputy Administrator for Defense Programs when the state of emergency should be terminated for an event involving a damaged or recovered nuclear weapon, improvised nuclear device, or radiological dispersal device and recommends final disposition actions.
  - (9) In coordination with the Manager, Render Safe Programs, NNSA maintains facilities in which to conduct technical operations for staging, assessing, and possible disassembly, destruction, or long-term storage of a recovered or damaged nuclear weapon, an IND, or an RDD at the Nevada Test Site.
  - (10) Determines to which major facilities management contracts responsibilities identified within this Order applies and informs the contracting officers for those contracts.
- j. Manager, Sandia Site Office; Manager, Pantex Site Office; Manager, Los Alamos Site Office. Provide to the NNSA Office of Emergency Response field asset support for budget, personnel, and work for others coordination.
- (1) Provides to the Director, NNSA Office of Emergency Response, field asset support for budget, personnel, and work for others coordination.
  - (2) Provides program oversight of the emergency response field asset program.
  - (3) Provides Federal Team Leaders and SEOs for emergency response asset teams.
- k. Regional Coordinating Offices (Brookhaven Area Office, Oak Ridge Office, Savannah River Site Office, NNSA Service Center, Chicago Office, Idaho Operations Office, Livermore Site Office, Richland Operations Office).
- (1) Appoints a Regional Response Coordinator (RRC) to provide field-level management and operation of the regional RAP under their purview. RRC responsibilities include the following:
    - (a) Deploys RAP team upon receipt of a valid request for support and appropriate authorization from the ERO.
    - (b) Ensures implementation of the requirements of the RAP Field Operations Guide.
    - (c) Notifies the Headquarters Operations Center as follows:



structure and procedures for Federal responses to discharges of oil and releases of hazardous substances.

- k. 10 CFR 835, Occupational Radiation Protection.
  - l. Federal Energy Regulatory Commission regulations for emergency plans (18 CFR 12.20), which protects the health and safety of members of the public upstream and downstream of water projects (dams).
  - m. Environmental Protection Agency regulations implementing the provisions of the Safe Drinking Water Act (40 CFR 141-142).
  - n. Environmental Protection Agency requirements implementing the Comprehensive Environmental Response, Compensation, and Liability Act, embodied in 40 CFR Parts 300-374, including Title III, the Emergency Planning and Community Right-to-Know Act, embodied in 40 CFR Parts 350-374.
  - o. DOE O 151.1C, *Comprehensive Emergency Management System*, dated 11-02-05. DOE O 231.1A Chg 1, *Environment, Safety and Health Reporting*, dated 6-3-04.
  - p. DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03.
  - q. DOE O 452.1C, *Nuclear Explosive and Weapon Surety Program*, dated 09-20-05.
  - r. DOE O 452.2C, *Nuclear Explosive Safety*, dated 06-12-06.
  - s. DOE O 470.4, *Safeguards and Security Program*, dated 8-26-05.
  - t. Joint Department of Defense, Department of Energy, and Federal Emergency Management Agency Agreement for Response to Nuclear Weapons Accidents and Nuclear Weapon Significant Incidents, dated 1-8-81.
  - u. Memorandum of Agreement between the Department of Energy (DOE) and Department of Homeland Security (DHS), dated February 28, 2003.
  - v. Title 10, Code of Federal Regulations, Part 830, *Nuclear Safety Management*, Subpart A, Quality Assurance Requirements, and Subpart B, Safety Basis Requirements.
  - w. National Nuclear Security Administration Act, as amended.
7. NECESSITY FINDING STATEMENT. In compliance with the statutory requirements in P.L. 104-201, Sec. 3174, regarding Orders relating to the execution of environmental restoration, waste management, or technology development activities at a defense nuclear facility under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq), the Secretary finds that this Order is necessary for the protection of human health and the environment or

safety, the fulfillment of current legal requirements, and the conduct of critical administrative functions.

8. CONTACT. Questions concerning this Order should be addressed to the Associate Administrator, NNSA Office of Emergency Operations, at 202-586-9892.

BY ORDER OF THE SECRETARY OF ENERGY:



CLAY SELL  
Deputy Secretary

**DOE ELEMENTS TO WHICH DOE O 153.1 IS APPLICABLE**

Office of the Secretary  
National Nuclear Security Administration  
Office of Environmental Management  
Office of Health, Safety and Security  
Office of Intelligence and Counterintelligence  
Office of Nuclear Energy, Science and Technology  
Office of Public Affairs  
Office of Science  
NNSA Service Center (Albuquerque)  
Nevada Site Office  
Los Alamos Site Office  
Sandia Site Office  
Pantex Site Office  
Kansas City Site Office  
Chicago Office  
Livermore Site Office  
Y-12 Site Office  
Oak Ridge Office  
Richland Operations Office  
Office of River Protection  
Savannah River Operations Office  
Idaho Operations Office  
Rocky Flats Field Office  
Brookhaven Area Office

**DOE ELEMENTS TO WHICH DOE O 153.1 IS NOT APPLICABLE**

Office of the Chief Financial Officer  
Office of the Chief Information Officer  
Office of Civilian Radioactive Waste Management  
Office of Congressional and Intergovernmental Affairs  
Office of Economic Impact and Diversity  
Office of Energy Efficiency and Renewable Energy  
Office of Fossil Energy  
Office of General Counsel  
Office of Hearings and Appeals  
Office of Human Capital Management

Office of the Inspector General  
Office of Management  
Office of Policy and International Affairs  
Office of Legacy Management  
Golden Field Office  
Ohio Field Office  
Bonneville Power Administration  
Southeastern Power Administration  
Southwestern Power Administration  
Western Area Power Administration



## **CONTRACTOR REQUIREMENTS DOCUMENT DOE O 153.1 DEPARTMENTAL RADIOLOGICAL EMERGENCY RESPONSE ASSETS**

Regardless of the performer of the work, the contractor is responsible for complying with this Contractor Requirements Document (CRD) and flowing down CRD requirements to subcontractors at any tier to the extent necessary to ensure contractor compliance.

Any event-specific supplemental plans and procedures developed must also comply with this CRD.

1. Contractors must ensure compliance with asset-specific public affairs plans for emergency response assets.
2. Contractors must cooperate with the Senior Energy Official (SEO) for any response involving the deployment of the emergency response assets. Deployed emergency response assets will work in support of, and under the coordination of, the SEO.
3. Each contractor supporting the emergency response assets will be required to provide a field work proposal that provides information for program planning, budget formulation, or documentation of part, or all, of a work assignment. This information will be used for the development of the work authorization statements. Each emergency response asset will be required to carry out the work agreed to in the work authorization statement consistent with its terms and conditions; provide quarterly reports on accomplishments, shortfalls, status of specified funding activities, and tasks. These activities will be coordinated by the appropriate site office and through the NNSA Office of Emergency Response Program Manager for the emergency response asset.
4. The standardized terminology of alert, mobilize, activate, and deploy must be used when referring to emergency response asset readiness conditions in plans and procedures. These basic terms are defined as follows:
  - a. Alert. Program personnel are notified that mobilization and/or deployment are being considered. Key personnel report to designated locations. Other personnel remain available for mobilization, activation, and deployment.
  - b. Mobilize. Personnel who are deployable or who support deployment and emergency response equipment are assembled at designated locations in preparation for deployment.
  - c. Activate. DOE organizations assemble personnel at home stations, but do not deploy. An example is home team support.
  - d. Deploy. Emergency response assets are physically relocated to the site of an emergency.

5. Contractors must develop the plans and procedures necessary to implement the provisions of this CRD. These plans and procedures must include Integrated Safety Management concepts.
6. Contractors must maintain the capability for 24-hours/day notification.
7. Contractors with deployable emergency response assets must establish, maintain, and practice the ability to deploy personnel and equipment to any potential event location within prescribed deployment guidelines.
8. Contractors must require that all contractor emergency response asset personnel who are eligible for worldwide deployment obtain and maintain a valid United States passport, current immunizations, and must take all other actions necessary to qualify fully for worldwide deployment.
9. All contractor emergency response asset personnel who have, or may have, contact with classified matter must have the appropriate valid security clearance.
  - a. Contractor personnel with potential access to nuclear weapons or related information must have a Q clearance and the appropriate Sigma access.
  - b. Contractor personnel identified to handle Intelligence Information must obtain appropriate clearances and authorizations.
10. All contractor organizations with responsibilities for emergency response assets must ensure that individual members of that asset participate in an emergency response exercise at least once every 3 years.
11. Contractor organizations must have readiness assurance programs to ensure that emergency capabilities are sufficient to implement emergency plans and that appropriate and timely improvements are made in response to needs identified through coordinated emergency planning, resource allocation, training, drills, exercises, and actual responses to events.
12. In the event of an off-site radiological accident involving a nuclear weapon, special nuclear material, or classified components, contractors must cooperate with DOE in establishing a National Security Area to safeguard classified information, Restricted Data, equipment, and material.
13. Lessons learned from actual responses and exercises must be incorporated into training programs and into emergency response asset response plans and procedures.